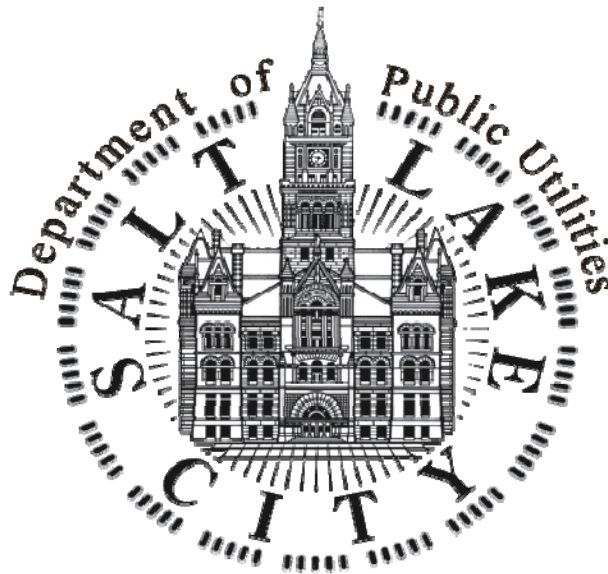


Salt Lake City Corporation

Department of Public Utilities



2015 ANNUAL REPORT

**UPDES PERMIT NO. UTS000002
FOR DISCHARGES FROM
MUNICIPAL SEPARATE
STORM SEWER
SYSTEMS**

**Submitted to:
State of Utah**

**Department of Environmental Quality
Division of Water Quality**

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STORM WATER MANAGEMENT PLAN IMPLEMENTATION STATUS

INTRODUCTION

In accordance with the UPDES permit UTS000002 the Annual Report has been historically reported on a calendar year. With the issuance of the 2015 UPDES permit UTS000002 the Annual Report is now required to be reported on a fiscal year July 1st through June 30th, the 2015 Annual Report reflects the implementation of the SWMP from January 1, through June 30, 2015.

The purpose of this chapter is to show the implementation (Annual Report) status of the Storm Water Management Plan (SWMP). The BMP components for the SWMP are presented below. This includes the BMP goal, description, measurement, reduction or benefit, and the method of implementation.

BMP 1: Clean and Inspect required portions of the drainage system every five years.

GOAL: To keep the storm drainage conveyances clean and clear of debris, and minimize organic matter and litter from entering into the storm drainage system and Waters of the State.

DESCRIPTION: The Salt Lake City Storm Water Utility is responsible for keeping the drainage conveyances clean. The system consists of approximately 340 miles of pipe, 114 detention basins, and 91 miles of open ditches and channels. The maintenance program is designed to facilitate cleaning the entire system on a five-year cycle. Salt Lake City maintains a fleet of five Vactor trucks and four dragline machines, used for storm drains larger than 24 inches, to clean storm drain structures. Major storm drains are inspected on an annual basis. Detention basins are also inspected annually. Main Lines are scheduled to be cleaned when the annual inspection indicates approximately 20 percent of the pipe capacity is filled with sediment.

MEASUREMENT: The CITYWORKS Work Order System is used to track system maintenance. Each system feature such as pipes, manholes, and detention basins, have been assigned a unique record in the data- base. Maintenance activity on each structural feature of the Salt Lake City system is tracked. The number of complaints is also tracked.

REDUCTION OR BENEFIT: The benefit attributed to the implementation of this

BMP is the removal of sediments and pollutants that collect in the storm drain conveyances and ultimately enter the Waters of the State. The removal of this sediment mitigates adverse consequences to aquatic life in streams and lakes. Additional benefits include the enhancement of aesthetic values of the waters by reducing the litter and sediment load. Keeping the lines free and clear of debris allows storm water runoff to convey through the drainage system as designed.

IMPLEMENTATION: Salt Lake City Storm Water Utility will continue to implement this BMP. The Storm Drainage Manager is responsible for coordinating and prioritizing this task. The CITYWORKS Work Order System will be used for scheduling, and as a tracking measure of the status of the drainage system. In 2013, Storm drainage crews implemented a floatables removal program. Four major outfalls to the Jordan River have specific floatable removal BMPs. BMPs are installed based on the flow, type and configuration of the storm drain outfall. The following presents the portion of the drainage system cleaned during January 1, through June 30, 2015. Numbers are for Fiscal Year as reported in the Salt Lake City Corporation Department of Public Utilities Statistical Report.

SYSTEM FACILITIES CLEANED AND INSPECTED

| YEAR | PIPE | GUTTER | INLETS/BOXES |
|-------------|--------------------|-------------------|---------------------------|
| 2011 | 70,005 ft. | 118,505 ft. | 7,447 inlets/boxes |
| 2012 | 123,486 ft. | 177,110 ft. | 7,478 inlets/boxes. |
| 2013 | 252,884 ft. | 434,305 ft. | 13,387 inlets/boxes. |
| 2014 | 583,380 ft. | 274,440 ft. | 21,584 inlet/boxes. |
| 2015 | 339,165 ft. | 45,535 ft. | 9,421 Inlets/boxes |

| | DITCHES AND CANALS | FLOATABLES |
|-------------|---------------------------|----------------------|
| 2011 | 12,849 ft. | |
| 2012 | 12,777 ft. | |
| 2013 | 28,033 ft. | 250 cubic ft. |
| 2014 | 51,184 ft. | 466 cubic ft. |
| 2015 | 6,895 ft. | 177 Cubic ft. |

BMP 2: Inspect all major storm drains and detention basins annually. Clean and repair the facilities as needed.

GOAL: To keep all of the major storm drains and detention basins in repair and clean of any debris or sediment that may keep them from efficient operation.

DESCRIPTION: The Salt Lake City Storm Water Utility is responsible for inspecting and keeping all major storm drains and detention basins clean and repaired. Major storm drain lines are inspected on an annual basis. Detention basins are inspected annually. The Storm Water Utility maintenance manager will schedule these inspections during the months of January through March, prior to spring run-off. Inspection dates, cleaning and repairs will be tracked on the CITYWORKS Work Order System.

MEASUREMENT: The CITYWORKS Work Order System will be used for keeping track of all of the major storm drains and detention basins inspected, and document any repairs or cleanup.

REDUCTION OR BENEFIT: The benefit attributed to the implementation of this BMP is the maintenance of flow capacity, and the reduction of sediments and pollutants that would collect in the storm drain conveyances and ultimately enter the Waters of the State. The removal of this sediment and debris mitigates adverse consequences to aquatic life in streams and lakes. Aesthetic values of the waters are also enhanced, by reducing the litter and sediment load. Keeping the major storm drainage conveyances and detention basins free from any obstructions allows the storm water runoff to convey through the drainage system as designed.

IMPLEMENTATION: The Salt Lake City Storm Drainage will continue to implement this BMP. The Storm Drainage Manager is responsible for scheduling and coordinating the inspections and cleaning of these facilities on an annual basis. As lines are inspected, repairs are made and the line is cleaned, as necessary. Any repairs or clean up will be documented on the CITYWORKS Work Order System.

| YEAR | FEET OF PIPE INSPECTED | DETENTION BASINS INSPECTED |
|-------------|---------------------------|-------------------------------|
| 2011 | 177,307 | 35 |
| 2012 | 164,384 | 73 |
| 2013 | 634,062 | 75 |
| 2014 | 512,306 | 100 |
| 2015 | 339,165 | 47 |

BMP 3: Support Salt Lake City Tan Can Program.

GOAL: To minimize or eliminate fall leaves from getting into the gutters and storm drain system.

DESCRIPTION: The Tan Can program is administered through the Public Service Division. The leaves are used in the composting operation at the landfill. The composting is available for government landscaping projects, commercial landscaping, and residential use. The Tan Can program was initiated in October 2009. Salt Lake City replaced the plastic leaf bags with containers in order to lessen the amount of non-biodegradable material in the landfills and to reaffirm Salt Lake City’s commitment to sustainability.

MEASUREMENT: The tons of leaves composted and used for landscaping will be used to measure the effectiveness of this BMP.

REDUCTION OR BENEFIT: The implementation of this BMP helps prevent organic pollutants to the maximum extent practicable (MEP), from entering the drainage system, mitigating the consequences of organic pollution from the leaves that may otherwise enter the storm drain conveyance and the receiving water bodies. Additional benefits include providing safety to the community and the availability of composting material for landscaping.

IMPLEMENTATION: Salt Lake City Storm Water Utility will continue to support this BMP. The Storm Water Utility will assist Public Works in distributing information to the City residents. Salt Lake City Department of Public Utilities will

continue to support the aforementioned program.

| YEAR | YARD WASTE BINS IN SERVICE | TONS OF LEAVES COLLECTED |
|-------------|--|-----------------------------|
| 2011 | 41,059 – Yard Waste Bins in Service | 3,628 Tons |
| 2012 | 41,200 – Yard Waste Bins in Service | 3,662 Tons |
| 2013 | 40,033 – Yard Waste Bins in Service | 2,483 Tons |
| 2014 | 40,356 – Yard Waste Bins in Service | 3,295 Tons |
| 2015 | 40,360 – Yard Waste Bins in Service | 3,463Tons FY |

BMP 4: Continue the Neighborhood Cleanup Program.

GOAL: To keep household refuse and debris from entering the storm drainage conveyances that lead to the rivers and canals.

DESCRIPTION: Salt Lake City conducts a yearly neighborhood cleanup program. Residents may place yard debris such as grass, leaves, tree limbs, and other non-hazardous waste by the curb for collection by City crews. An effort is made to separate organic material (e.g. bushes and trees) for mulching, the program runs for thirty-one weeks, from April to November with approximately 4,000 tons of yard debris collected annually. The areas are rotated each year in an effort to offer the citizens a spring and fall clean up option every other year. Each week approximately 1,300 to 1,500 residential homes receive the service.

MEASUREMENT: The amount of residential debris removed each year is the measurement used for this BMP.

REDUCTION OR MEASUREMENT: The benefits attributed to the implementation of this BMP is the reduction of yard debris that may migrate into the storm drainage conveyances and ultimately into the Waters of the State. The removal of this debris mitigates nuisance materials from plugging storm drains, or from having an adverse impact to aquatic life in streams and lakes. Implementing this BMP also enhances aesthetic values to the neighborhood and receiving waterways.

IMPLEMENTATION: Salt Lake City Storm Drainage will continue to implement this BMP. The Sanitation Division of the Salt Lake City Public Works is responsible

for the coordination of this BMP, and provides the labor. The manpower and equipment used include three front-end loaders with operators, ten dump trucks with drivers, and laborers at each site.

| YEAR | TONS OF MATERIAL REMOVED |
|-------------|---------------------------------|
| 2011 | 4,609* |
| 2012 | 5,128* |
| 2013 | 4,596* |
| 2014 | 3,555* |
| 2015 | 39,500 FY |

*Bulky waste only.

BMP 5: Remove leaves from gutters during the fall leaf season.

GOAL: To clean leaves out of the gutters and drainage intakes before they get into the storm drain system. This minimizes organic material that may otherwise convey into the Waters of the State.

DESCRIPTION: The Salt Lake City Storm Water Utility will continue to clean leaves from the gutters and drainage inlets during the fall leaf season. This BMP will be done in conjunction with the Public Services Division. Street sweepers and Vactor trucks are deployed in a coordinated effort during early September to clean leaves from the streets and storm drain intakes. BMP 3: Tan Can Program and BMP 4: Neighborhood Annual Cleanup Program works in conjunction with BMP 5. The combinations of these BMPs mitigate leaves and other debris that may migrate into the storm drains and waterways.

MEASUREMENT: The tons of leaves that are removed and taken to various locations for composting will be used for measuring the success of this BMP.

REDUCTION OR BENEFIT: The implementation of this BMP eliminates several tons of organic material from entering the drainage system, and Water of the State. Additional benefits of this BMP include clean intakes and gutters

IMPLEMENTATION: The Salt Lake City Storm Water Utility will continue to support this program. An annual cost of \$300,000 will be appropriated by the Storm Water Utility to provide this BMP. The Drainage Manager, Sanitation

Manager, and the appropriate personnel meet each year to coordinate their efforts. Street sweepers and Vactor truck efforts will be prioritized through a continual coordination effort.

| YEAR | TONS OF MATERIAL REMOVED BY STREET SWEEPERS AND VACTORS |
|-------------|--|
| 2011 | 3,032 |
| 2012 | 2,046 |
| 2013 | 2,099 |
| 2014 | 2,516 |
| 2015 | 2,262 FY |

BMP 6: Support the Salt Lake City Curbside recycling effort.

GOAL: To reduce or eliminate material that can be recycled from getting into curbs, storm drainage conveyances, and Waters of the State.

DESCRIPTION: Salt Lake City offers a convenient recycling program to the residents of Salt Lake City. Since the inception of this program, in 1994 the number of participants, and tons of material recycled has increased. The service is free to the residents and offered on a voluntary basis.

MEASUREMENT: The measurement of this BMP regarding storm water is the amount of material recycled and kept out of the storm drain system and the landfill. Approximately 900 tons of material per month is recycled in Salt Lake City.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is the reuse of material that would otherwise take up valuable space at the landfill. The depletions of natural resources are less stressed when material is recycled. The reduction of several tons of material that may migrate to storm drain systems is reused.

IMPLEMENTATION: Salt Lake City will continue to implement the recycling program. The program is in its twentieth year, with approximately 39,555 households receiving the service. The coordinator for Salt Lake City is the Director of the Sustainability Department. In order to enhance the recycling effort, Salt Lake City also implemented a yard waste, “Leaf Bag” recycling

program in 2008, and in 2010 changed the program to the “TAN CAN” eliminating the need for plastic leaf bags.

| YEAR | TONS OF MATERIAL RECYCLED Annually | # OF SUBSCRIPTIONS |
|-------------|---------------------------------------|--------------------|
| 2011 | 900 | 41,811 |
| 2012 | 891 | 40,337 |
| 2013 | 11,642 | 40,033* |
| 2014 | 12,351 | 39,555 |
| 2015 | 12,626 | 39,590 FY |

*An additional 16,403 tons were diverted for composting

BMP 7: Support citizens clean up days of selected waterways.

GOAL: To improve the aesthetics of selected waterways by removing debris and to promote citizen awareness and responsibility regarding the waterway.

DESCRIPTION: Salt Lake City Departments of Public Utilities and Public Works combine labor, equipment, and supplies to assist the community in cleaning the waterway. The cleanups begin in April around Earth Day and continue throughout the spring and summer. The community and Salt Lake City Departments work together to improve and beautify the waterway using volunteers and community groups. Salt Lake now employs a volunteer coordinator that facilitates volunteer cleanup projects.

Because of the success of the program, the volume of debris hauled to the landfill has diminished over the years. However, volunteer efforts continue to work to remove debris from the waterways. The program has become more of a beautification effort rather than a removal effort. Two full time and two seasonal employees maintain the river and work on beautification projects.

MEASUREMENT: The change in the amount of debris removed from the waterway and hauled to the landfill is one measurement of the success of this BMP. The support of the community volunteers is an important aspect of this BMP. As the community becomes involved, awareness of preventing pollutants

from entering the waterways should increase. Thus, fewer tons of debris should be in the river, which results in fewer tons of debris removed each year. This is an important measurement of the success of this BMP. Another measurement is the maintenance of trails, native trees and plants planted and other improvements.

REDUCTION OR BENEFIT: The benefit of this BMP is the reduction of garbage and debris destroying the beauty and water quality of the selected waterway. The community involvement in the clean up increases general awareness. The community benefit is a waterway that has better aesthetics, recreational use, and water quality.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP. The Public Utilities Drainage Manager and the Parks Department make the coordination efforts for equipment, supplies, disposal fees etc

2015 through June Water Way Cleanup and Beautification Projects

Jordan River: Clean up and weed removal on the Jordan River 24 Projects – 544 volunteers (1058 hours).

- Parks and Public Lands Open Space 2/28/2015 University of Utah Harvested willows along JRPT and 1800 N
- Public Utilities Water Conservation 3/31/2015 University of Utah Garden cleanup
- Public Utilities Water Conservation 3/31/2015 East Avenue Church Garden cleanup
- Public Utilities Water Conservation 3/31/2015 East High School Garden cleanup
- Parks and Public Lands Open Space 3/31/2015 Sigma Chi Fraternity Harvested willows along JRPT and 900 S
- Parks and Public Lands Open Space 3/31/2015 Montessori School Planted willows, pulled 20 gallons of thistle on JRPT and 900 S
- Public Utilities Water Conservation 4/4/2015 Solstice Academy Garden cleanup
- Parks and Public Lands Open Space 4/10/2015 YMCA Thistle Pull and Trash Sweep on JRPT
- Public Utilities Water Conservation 4/11/2015 Fit 4 Life Company Garden cleanup
- Parks and Public Lands Open Space 4/17/2015 Boys and Girls Club Thistle Pull and Trash Sweep on JRPT
- Parks and Public Lands Open Space 4/25/2015 Company Groups

- Earth Day Project Through Bennion at Bend in the River
- Parks and Public Lands Open Space 4/21/2015 School Group
Elementary Students w/Julia Pace - planting in Hidden Hollow
 - Parks and Public Lands Parks 5/6/2015 Eagle Scout Group
Flower Planting at City Creek Park
 - Parks and Public Lands Open Space 5/12/2015 Company Groups
Jordan River Parkway Trail weeding
 - Parks and Public Lands Open Space 5/14/2015 Company Groups Get
Into the River Annual Event along the JRPT
 - Parks and Public Lands Parks 5/16/2015 Eagle Scout Group
Memory Grove Memorial volunteer work
 - Public Utilities Water Conservation 5/20/2015 VA Group Garden
cleanup
 - Public Utilities Water Conservation 6/3/2015 Company Groups Water
Conservation project in the Aves garden
 - Parks and Public Lands Parks 6/6/2015 General Community
Memory Grove cleanup project
 - Public Utilities Water Conservation 6/8/2015 Community Service
Group Water Conservation project in the Aves garden
 - Parks and Public Lands Parks 6/12/2015 Morgan Stanley
Memory Grove cleanup
 - Parks and Public Lands Open Space 6/13/2015 Church Group LDS
Business College doing JRPT cleanup
 - Parks and Public Lands Parks 6/13/2015 General Community
JRPT Project cleanup, 10 bags of trash
 - Public Utilities Water Conservation 6/15/2015 General Community
Neighborhood House Youth Group

BMP 8: Use the CITYWORKS work order system to track and schedule storm drain maintenance activities.

GOAL: To document and track system maintenance, with the computerized work order system. (CITYWORKS). This documentation will be used to keep track of maintenance activity on each structural feature of the Salt Lake City system and provide information for future maintenance activities.

DESCRIPTION: Salt Lake City implemented the CITYWORKS work order system in 1993 for tracking of the sanitary sewer, and storm water systems. The work order system allows each system feature such as pipes, manholes, and detention

basins to have its own assigned unique record in the database. Work orders are generated for routine scheduled maintenance, needed repairs in the system, and emergencies. These work orders are assigned to maintenance personnel to make repairs and/or replacements. The amount of time spent on the maintenance activity, materials used, and work performed is recorded on the work order and the information is input into the CITYWORKS database.

MEASUREMENT: The measurement for this BMP is the work performed on the storm drainage system. The number of work orders assigned and the repairs and/or replacements to portions of the drainage system to insure the systems are clean and function properly.

REDUCTION OR BENEFIT: The benefit attributed to the implementation of this BMP is the availability of a tracking system to access records regarding maintenance and repairs on the drainage system. These records provide information for scheduling of maintenance, repairs, and cleaning of the drainage system. The maintenance activities provide a drainage system that functions properly to mitigate the amount of pollutants entering Waters of the State.

IMPEMENTATION: Salt Lake City Public Utilities will continue implementation of this BMP. The Storm Drainage Manager is responsible for assigning work orders, making sure that proper notes are asserted on the work order by maintenance personnel, and making sure that work orders are provided to the work order office. The work order office is responsible to input the information into the CITYWORKS Work Order system for future use in maintaining the storm drainage system.

BMP 9: Conduct an annual training seminar for maintenance personnel on their role in maintaining storm water quality.

GOAL: To insure that storm drainage maintenance personnel are aware of their responsibility in maintaining storm water quality as work is performed.

DESCRIPTION: The Salt Lake City Storm Water Utility is responsible for maintaining the storm drainage conveyances and keeping them clean. As part of this responsibility maintenance crews are trained to understand and obtain knowledge of their role in maintaining storm water quality. Salt Lake City storm drainage maintenance personnel are trained regarding their role in maintaining

storm water quality in the following areas. Construction activities, cleaning storm drain lines, boxes and inlets, identifying flows or discharges into the storm drain system and reporting them for investigations, and working on beautification projects and cleanup of selected waterways with citizens.

MEASUREMENT: The measurement for this BMP is the training provided for maintenance personnel. The quality of the training and topics discussed should focus on BMP that they can implement to maintain storm water quality while performing their job. Another aspect of the training should focus on illicit discharge identification.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is providing support and training to the drainage maintenance crew in order for them to understand the significance of maintaining storm water quality. With a maintenance staff that has received training, maintenance of the system should be performed with storm water quality addressed to eliminate or mitigate poor judgment or accidents that may discharge pollutants into the storm drain system and Waters of the State. Illicit connections and/or discharges are reported for investigations and solutions. Thus, the benefit of this BMP is a reduction of pollutants to the Waters of the State.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP. The Storm Drainage Manager and Storm Water Industrial Coordinator are responsible for this training. Several training sessions have been given over the years and will continue. The training sessions will continue to focus on BMPs and illicit discharge identification. The Storm Drainage Manager and Storm Water Industrial Coordinator will lead the efforts regarding training.

In 2015, general stormwater training was provided in safety and department meetings. In addition the stormwater staff attending a 16 hour Hazwoper class. The Storm Water Quality Staff works in coordination with maintenance crews to help them understand their roles concerning stormwater quality.

BMP 10: Develop a disposal program for sediments from storm drain cleaning.

GOAL: To ensure proper disposal of sediments from storm drain cleaning in an efficient and environmentally sound manner.

DESCRIPTION: The Salt Lake City Storm Water Utility is responsible for sediment

removal and proper sediment disposal. As sediment and debris is removed from the storm drain facilities during maintenance activities it is hauled to a bio-solids de-watering bed at the Water Reclamation Facility. The bio-solids de-watering bed has been reserved for storm drainage sediment and debris. The sediment and debris is stacked in windrows for de-watering to take place. The water from the sediment conveys through the sluice gates in the bed and is returned to the head-works of the plant for treatment. When the windrows of sediment and debris have de-watered the debris is loaded into dump trucks and hauled to an approved landfill for disposal.

MEASUREMENT: The measurement for this BMP is the number of loads that are properly de-watered and hauled to the landfill for disposal. This disposal method is used to dispose of the sediment in an environmentally sound manner.

REDUCTION OR BENEFIT: The benefit attributed to the implementation of this BMP is the amount of sediment and debris removed from the storm drainage system that receives environmentally sound disposal. Cleaning the storm drainage system and removing sediment and debris mitigates this pollution from entering Waters of the State. The reduction of several tons of sediment from the storm drain system mitigates adverse consequences to aquatic life in streams and lakes. Reducing the litter and sediment load also enhances aesthetic values of the waters.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP. From January 1, through June 30, 2015, approximately 1,044.83 Tons of sediment and debris were taken to the bio-solids beds for de-watering. After the sediment and debris was de-watered it was taken to the landfill for disposal.

BMP 11: Continue requirements for on-site detention for developments.

GOAL: To improve water quality by engineering on-site storage facilities, which are designed to improve water quality and allow a more controlled runoff discharge through storm drain piping or groundwater recharge.

DESCRIPTION: Salt Lake City has had a drainage regulation requiring on-site detention for developments since 1978. Salt Lake City requires all commercial, industrial, and residential developments with impervious areas greater than 15,000 square feet to provide on-site detention facilities to limit the discharge to a pre development rate of 0.2 cubic feet second/acre during the 100-year storm.

The uses of on-site detention promote storm water quality by reducing the post development run off velocities and sediment transportation.

MEASUREMENT: The measurement for this BMP is the number of drainage plans approved.

REDUCTION OR BENEFIT: The benefit attributed to the BMP of requiring on-site detention is the enhancement of water quality by settling out some of the pollutants that negatively affect the receiving waters. The mitigation of flooding is another benefit of this BMP. Thus, the capacities of all design areas are to be sufficient to contain the estimated runoff volume from a 100-year, 24- hour storm event over those portions of the gross aggregate area under design.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP. The Development Review and Inspection teams are responsible for reviewing and inspecting proposed construction development to insure it conforms to the City’s Surface Water Runoff Policy, the City’s Restrictive Discharge Policy, and good engineering practices. January 1, through June 30, 2015, 42 drainage plans were approved. 100 % of the plans approved met the drainage regulations developed by Salt Lake City.

BMP 12: Enforce the requirements of the Zoning Ordinance Chapter 21A.34.050 and 21A.34.130 for developments adjacent to waterways (Riparian Corridor Overlay).

GOAL: To provide protection, preservation, proper maintenance, and use of Salt Lake City’s Water courses, lakes, ponds, floodplain, and wetland areas to include downstream drainage areas for present and future residents of Salt Lake City.

DESCRIPTION: The Riparian Corridor Overlay ordinance protects water-bodies that encompass the Riparian Corridor Overlay district such as streams, lakes, ponds, and wetlands, as identified on the zoning map, and also the Jordan River and the Surplus Canal. The ordinance has certain protection area standards such as setback requirements, permitted use, conditional uses, natural vegetation buffer strips, and landscape plan requirements the Riparian Corridor Overlay District (RCO) provides protection for all stream corridors and wetlands east of Interstate 215 Highway and includes City Creek, Red Butte Creek, Emigration Creek, The Jordan River and Parleys Creek and their tributaries.

MEASUREMENT: The measurement for this BMP is the approval of required

plans, and enforcement of the ordinance. Soils reports identifying soil stability, drainage control plans, and site grading and excavation plans must be submitted and approved prior to any work being done.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is in the stated purpose of the overlay zone to improve water quality. “The water quality is improved by filtering and storing sediments and attached pollutants, nutrients, and compounds before they drain into streams or wetlands, and by maintaining the natural pollutant assimilating capabilities of the stream, floodplains and wetlands.”

IMPLEMENTATION: Salt Lake City will continue implementing this BMP which has been in place since 1992. 21A.34.050 and the newly passed 21A.34.130 Riparian Corridor Overlay the Planning Section of Community and Economic Development is responsible for reviewing requests to build or use the overlay and or RCO district. Their review of plans and the criteria in Zoning Ordinance 21A.34.050 and 21A.34.130 are used in the process of request being approved or rejected. 15 RCO plans were reviewed 2015 from January 1, through June 30, 2015

BMP 13: Prepare Standard BMPs for site development.

GOAL: To have a set of standard construction BMPs that are available to developers and engineering consultants that may be used to enhance storm water quality.

DESCRIPTION: The purpose of this BMP is to have a guidance document available to developers, engineering consultants, and contractors regarding storm water management during site development and construction activities. This document would provide BMPs and discuss the impacts of construction activities to storm water quality.

MEASUREMENT: The measurement of this BMP is the quality of the guidance document and the BMPs that are implemented during site development as a result of this document.

REDUCTION OF BENEFIT: The benefit of this guidance manual is to provide developers, engineering consultants, and contractors with information regarding BMPs that may be implemented at construction sites during site development.

As these BMPs are implemented storm water pollution prevention techniques and practices are used to mitigate pollutants from conveying to storm drain systems and Waters of the State.

IMPLEMENTATION: The guidance document was developed in May of 1994. Salt Lake City has referred this guidance manual, “Storm Water during Construction Activities” to contractors in Salt Lake City. A manually has been periodically updated. The document is a “Guidance Document for Storm Water Management”. Chapter Two is entitled, “BMPs for Construction Activities”. The document is available <http://www.pweng.slco.org/stormwater/html/guide.html> Salt Lake City will continue to implement this BMP by referring the manual to contractors and developers. Salt Lake City will also coordinate with the Stormwater Coalition.

BMP 14: Develop annual review program for private drainage detention facilities.

GOAL: To ensure that control structures are in place and functioning properly on private drainage detention basins to protect water quality and meet 100-year, 24-hour storm event runoff requirements.

DESCRIPTION: Salt Lake City Public Utilities has a restrictive discharge policy for developments that meet the criteria found in Salt Lake City Storm Drainage Regulation No. SW-1, which in 2011 was incorporated into Salt Lake City’s Building Design and Process Guide.

The restrictive discharge policy requires the on-site concentration or collection of all surface and storm water runoff within the project area, and restricts the eventual discharge of this runoff to a maximum allowable discharge rate of 0.20 cfs/acre of development. Private drainage detention basins for development are one of the designs used to meet the restrictive discharge policy. Salt Lake City Public Utilities Drainage Division is responsible for inspecting these private detention basins.

MEASUREMENT: The measurement for this BMP is the inspections on the private detention basins to insure control structures are in place and functioning properly.

REDUCTION OR BENEFIT: The benefit of this BMP is a drainage system that addresses the treatment of surface and storm water runoff, both wet-weather

and dry weather discharges. The detention basins function is the temporary storage of storm runoff, which is used to control the peak discharge rates, and which provides gravity settling of pollutants. Orifice plates may be used to restrict the discharge of the runoff to the maximum allowable discharge rate of 0.20 cfs/acre. Large debris such as cups, sticks, cans, cardboard, etc generally do not pass through the orifice plate. They eventually drop to the bottom of the detention basin. The reduction of sediment and pollutants to Waters of the State is one of the purposes of this BMP. As a result of this BMP water quality and the aesthetics of the waterway is improved.

IMPLEMENTATION: Salt Lake City’s Public Utilities GIS Specialist inspects private detention facilities. During this inspection, detention basins are inspected to make sure they are clean of debris and sediment, and are functioning properly. Salt Lake City has approximately 1060 private drainage facilities that require inspection. Detention basins are scheduled to be inspected once every five years. Through June 2015, 55 private drainage detention facilities were inspected and approved by Salt City Public Utilities.

BMP 15: Support the existing Salt Lake City Street Sweeping program.

GOAL: The goal of this BMP is to reduce the impact on receiving waters from pollutants and debris accumulating on the streets from residential, industrial, and commercial use.

DESCRIPTION: Salt Lake City Public Service Department operates a fleet of nine street sweepers. Sweeping industrial and commercial areas is scheduled on a monthly basis. Sweeping residential areas is scheduled on a six months rotation. A street-sweeper is attached to the street departments’ asphalt grinding and chipping section to sweep the streets behind maintenance activities. Streets are also swept following the collection of debris placed by residents during the neighborhood cleanup program.

MEASUREMENT: The measurement of this BMP is the miles of street swept and debris removed from the streets.

REDUCTION OR BENEFIT: The benefit attributed to street sweeping on regular basis is to reduce floatable material, sediments and other attached pollutants from transporting into the storm sewer system and Waters of the State.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP. Salt Lake Storm Water Utility pays one-half of the cost for street sweeping in Salt Lake City. The Public Service Division Manager tracks and schedules the street sweeping.

| DATE | AMOUNT SPENT ON STREET SWEEPING | LANE MILES SWEPT |
|-------------|---------------------------------|------------------------|
| 2011 | \$ 1,171,000 | 29,794 Miles |
| 2012 | \$ 1,019,000 | 25,165 Miles |
| 2013 | \$ 953,000 | 22,844 Miles |
| 2014 | \$ 1,071,000 | 24,916 Miles |
| 2015 | \$ 975,000 | 22,024 Miles FY |

BMP 16: Review salt pile storm water management.

GOAL: To have an environmentally sound storm water management plan implemented around street deicing salt piles.

DESCRIPTION: Salt Lake City Public Service Department is responsible for implementing the BMP around street deicing salt piles. Five locations are used to store street deicing salt piles. These five locations include: Victory road, Bonneville, Guardsman way, Forrest Dale, and DeLong Street. All five locations have no flow asphalt pads that slope to concrete holding sumps. The sumps are pumped out and the brine solution is used to pre-wet streets prior to a storm that has been forecasted. Barriers are placed on the perimeter of the site for secondary containment as an added protection.

MEASUREMENT: The measurement for this BMP is the prevention of the salt, and brine solution from leaving the containment area and migrating to storm drainage systems or leaching into the groundwater.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is that through proper management of street deicing and salt piles the storm drain system, and groundwater will not be polluted by the salt piles. If these salt piles are not properly managed the runoff may enter the storm drains. Sodium Chloride the compound for salt is toxic to fresh water aquatic life and is very high in Total

Dissolved Solids (TDS). Therefore, the benefit of properly managing salt piles is to reduce a saline solution discharge that is high in total dissolved solids, and is toxic to aquatic life from entering the Waters of the State.

IMPLEMENTATION: Salt Lake City Public Works will continue to implement this BMP of properly managing salt piles. The asphalt pads, barriers and holding sumps are BMPs that have been implemented. The sumps are pumped out and the brine solution is used to pre-wet streets prior to a storm that has been forecasted. In 2002, a cover was constructed at the Victory road site to cover the salt piles in the winter, and as a picnic area for residents during the summer.

BMP 17: Procedures for monitoring storm water management on Community and Economic Development (CED) Projects.

GOAL: The goal of this BMP is to meet Storm Water conditions by identifying and controlling problems with erosion, sedimentation, or other pollutants that may enter the drainage system on CED Projects.

DESCRIPTION: Salt Lake City has developed a program for Public Services Projects regarding monitoring of storm water. Any site greater than one acres is required to obtain a UPDES construction permit and implement a SWPPP. BMPs are implemented to control sediment and erosion control. Salt Lake City has a design team and inspection team to ensure that the storm water is properly managed and monitored to mitigate pollutants.

MEASUREMENT: The measurement for this BMP is the UPDES construction permits, SWPPPs, and erosion and sediment controls implemented on Public Service Projects.

REDUCTION OR BENEFIT: The benefit of having this BMP is to mitigate sediment transportation and attached pollutants from entering storm drain systems and waterways. When the construction is complete, BMPs for water quality such as on-site detention basins, and grass swales may exist, which may have long term impact on the site.

IMPLEMENTATION: Salt Lake City's Department of Public Services has a standard specification requiring contractors to submit a Notification of Intent to be covered under the State of Utah General Construction Storm Water Permit and Salt Lake City Stormwater Discharge Permit for projects that will disturb

more than one acre. Utility Inspectors and the Industrial Storm Water Coordinator provide guidance and make sure that BMPs are in place on the projects.

BMP 18: Review proposed street projects for applicability of structural BMPs.

GOAL: The goal of this BMP is to review all street maintenance projects for applicability of installation of structural BMPs such as grass swales and detention basins to reduce pollutants.

DESCRIPTION: Salt Lake City has developed a process where a design team reviews all proposed street maintenance projects to determine if structural BMPs such as grass swales and detention basins should be installed. An inspection team inspects the project to make sure the structural BMPs are properly installed to specifications. The purpose of this BMP is to assess flood management projects on street maintenance to assure that water quality to the receiving water bodies is addressed for additional pollutant removal.

MEASUREMENT: The measurement of this BMP is that 100% of all street maintenance projects are reviewed and inspected with structural BMPs installed. As these structural BMPs are installed, the key measurement is the reduction of pollutants transported into the rivers and streams.

REDUCTION OR BENEFIT: The benefit of structural BMPs such as grass swales or detention basins is the improvement of water quality to the receiving water bodies. These BMPs rely primarily on settling to remove pollutants. The filtration action of the grass and ex-filtration through the soil layer remove some of the pollutants that would otherwise reach the receiving water bodies.

IMPLEMENTATION: Salt Lake City Public Utilities will continue to implement this BMP with a design and inspection team to review all proposed street maintenance projects. In 2015, 7 Community and Economic Development projects were reviewed.

BMP 19: Review all proposed storm water projects for water quality impacts.

GOAL: The goal of this BMP is to develop the best methodology for evaluating and improving water quality on all storm water capital projects.

DESCRIPTION: Salt Lake City has developed a procedure for evaluating water quality aspects of all storm water capital improvements. BMPs 17 and 18 work synergistically with BMP 19 to meet this goal. Any site greater than one acre is required to obtain a UPDES construction activities permit through Salt Lake City Public Utilities and the State of Utah. All sites are required to implement a SWPPP. A list of applicable structural BMPs that will improve water quality is part of the design process.

MEASUREMENT: The measurement of this BMP is the number of storm water projects reviewed and the impact the capital improvements have on improving water quality discharging to the receiving water bodies.

REDUCTION OR BENEFIT: The benefit of this BMP is the design of structural BMPs to improve water quality. As capital improvements occur structural BMPs will be installed which should conversely relate to water quality improvements as control devices are used to provide additional pollutant removal. Thus, the impact of pollutants on the receiving water bodies will be mitigated.

IMPLEMENTATION: Salt Lake City will continue the implementation of this BMP. The design and review team ensures that all projects are reviewed for water quality impacts. UPDES construction permits are obtained and SWPPPs are implemented to make sure that pollutants do not enter receiving waters. The design and review team ensures that the proper structural BMPs are used to enhance water quality. During 2015 3 storm water projects was reviewed by Salt Lake City Public utilities Engineers.

BMP 20: Review detention basins for feasibility of retrofitting for water quality enhancements.

GOAL: To review and develop a plan regarding the feasibility of retrofitting existing detention basins for water quality enhancements.

DESCRIPTION: The purpose of this BMP is to review the existing structural controls in the flood basin to determine if structural components are feasible for enhancing storm water quality. This review will be conducted during a complete basin master planning effort to be conducted by the Salt Lake City Storm Water Utility.

MEASUREMENT: The measurement for this BMP is the review process of

existing structural controls and implementation of retrofits to the structures to enhance storm water quality.

REDUCTION AND BENEFIT: The benefit of this BMP is the retrofitting of existing structural controls that are feasible to enhance storm water quality. As water quality enhancements are made to these structures sediments and pollutants are removed. The improved water quality is beneficial to the receiving Waters of the State.

IMPLEMENTATION: During the Salt Lake City Public Utilities master planning and capital improvements planning, the existing detention basins are reviewed for possible modifications. The review process determines the feasibility of modifications that may be used on existing detention basins to improve water quality. Salt Lake City will continue to evaluate the entire City owned detention basins and look for opportunities to enhance the beneficial value of the detention basins, for example the 900 South constructed wetland located on 900 South and the 1000 west outlet to the Jordan River.

BMP 21: Continue an education program on the proper use of pesticides and fertilizers.

GOAL: To have an education program available to educate residents, commercial applicators, and municipal agencies regarding the proper use of pesticides, fertilizers, and herbicides.

DESCRIPTION: The purpose of this BMP is to have an education program available regarding the proper use of pesticides, fertilizers, and herbicides. This program is to reach residents, industries, and municipal agencies. The Salt Lake City Public Utilities and Salt Lake County Storm Water Coalition have programs available to provide this type of public information. Additionally, a Salt Lake City-County Health Department Facility located at 6030 West 1300 South, provides information regarding use of the pesticides, fertilizers, and herbicides. This County facility will accept pesticides, fertilizers, and herbicides from residents, and small businesses that have left over products. These excess products are available to the general public at no cost for their use. Various publications have been used to educate the general public regarding the use of pesticides, fertilizers, and herbicides. These publications are circulated in newspaper inserts, pamphlets, and fliers.

MEASUREMENT: The measurement for this BMP is the education provided to

the various groups applying pesticides, fertilizers, and herbicides. As these groups become educated, products are properly used and the pollutants from over application are mitigated.

REDUCTION OR BENEFIT: The benefit of this BMP is an educated public that recognizes the significance of proper use of pesticides, fertilizers, and herbicides. The benefit attributed to this education effort is the reduction of pollutants to Waters of the State as a result of over application of these products.

IMPLEMENTATION: This BMP will continue to be implemented with various publications produced to educate the public regarding the proper use of pesticides, fertilizers, and herbicides. In addition, information is circulated at the Household Hazardous Waste Days held at various locations across the Salt Lake Valley. Salt Lake County accepts pesticides, fertilizers, and herbicides that are not used. The Salt Lake City-County Landfill Facility is also available to accept product for reuse of the pesticides, fertilizers, and herbicides.

BMP 22: Continue SWMP program similar to pretreatment program.

GOAL: To develop a program similar to the wastewater pretreatment program that is proactive in working with the businesses in Salt Lake City. The goal is to provide the businesses with information and assistance to help them stay in compliance with storm water objectives.

DESCRIPTION: The Salt Lake City Drainage Utility has developed a program to assist businesses in obtaining their UPDES industrial storm water permits, developing and implementing SWPPPs and staying in compliance with storm water regulations.

MEASUREMENT: The measurement for this BMP is the percent of industries with permits, and the percent of SWPPPs that are implemented. The ability to get businesses to comply and meet storm water standards is very important for the long-term success of the program. The number of inspections, enforcement of illegal discharges, and disconnection of illegal connections is another measurement beneficial to the storm water and pretreatment programs.

REDUCTION OR BENEFIT: The benefit of this program is working with the industries in Salt Lake City in a positive manner to find solutions and BMPs that will mitigate or eliminate pollutants. This approach will work for both short and

long term solutions to improve the quality of water entering receiving waters.

IMPLEMENTATION: Salt Lake City has established a stormwater program that is similar to the pretreatment program and coordinates with the pretreatment group on industrial facilities that both programs identify as potential problem facilities for either program during inspections.

BMP 23: Maintain industrial user NAICS and SIC code database.

GOAL: To have an updated listing of local industries having a Standard Industrial Classification Code, (SIC) requiring them to acquire State Industrial UPDES and Salt Lake City storm water permits and a SWPPP implemented.

DESCRIPTION: Salt Lake City Public Utilities will maintain an updated industrial user SIC code database. The data base will be used to identify industries in Salt Lake City that are required to have State and City Industrial UPDES storm water permits and SWPPPs that are implemented. The updated list will identify any new or existing industries that are required to meet storm water regulations and be inspected on a regular basis.

MEASUREMENT: The measurement of this BMP is the percent of total required industries on the database that obtain permits and meet storm water regulations as a result of contacts made from the use of this data base.

REDUCTION OR BENEFIT: The benefit of having an updated SIC database of industrial users will be to identify and contact new or unregulated industries in Salt Lake City and work with them regarding their compliance with storm water regulations. The end result will be better educated industries regarding storm water and fewer contaminants leaving their facilities to the MS4s storm drain system and eventually to the receiving water bodies.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP in order to have a list of those businesses required to meet storm water regulations. The guidelines given in the State General Permit for Storm Water Discharges Associated with Industrial Activity are used to determine which industries are included in the database. The Salt Lake City Business Licensing data will be reviewed regularly for new businesses to add to the stormwater industrial database.

BMP 24: Coordinate with POTW pretreatment program.

GOAL: To work in parallel with the POTW’s pretreatment program working in partnership with the industrial and business community to provide consistent guidance and direction.

DESCRIPTION: Salt Lake City Public Utilities storm water and pretreatment sanitary sewer personnel work in a team effort to partnership with the business community to identify and remove illicit connections to the storm drain system. Both programs inspect facilities and respond to trouble calls. During inspections if any illicit connections or discharges are noticed a coordinated effort between the two programs is used to remove any illicit connection, or to resolve any illegal discharges.

MEASUREMENT: The measurement for this BMP is the dissemination of information and consistent guidance given to the regulated business community. The number of illicit connections or illegal discharges found and resolved is another important measurement.

REDUCTION OR BENEFIT: The benefit of this BMP is the coordination of program efforts, and providing consistent direction and guidance to the regulated business community. Storm water discharging to the sanitary sewer adds to the hydraulics of the plant and may hydraulically overload the plant. This decreases the efficiency of the plant and water that should not need treatment. Sewer connected to the storm drain system is a pollution and health hazard. Removing any illegal connections or resolving illicit discharges are beneficial to both systems.

IMPLEMENTATION: Salt Lake City Public Utilities will continue to implement this BMP. The pretreatment program has four full-time and one part time position that inspect, and monitor waste streams discharged to the sewer from industries. The storm water program has one full time position to inspect industries regarding storm drain compliance. Coordination and cooperation between the two divisions assists both programs. Salt Lake City stormwater program works closely with the pretreatment group to monitor industrial facilities and discharges to the storm and sanitary sewer systems.

BMP 25: Maintain records and database of all illicit connection investigations.

GOAL: The goal of this BMP is to have records and a database of all illicit connections, their enforcement, and resolution for future reference.

DESCRIPTION: Salt Lake City’s Industrial Storm Water Coordinator maintains files and records of all illicit discharges or connections. Individual files are maintained on each business investigated. These files contain any correspondence, enforcement, and the resolution concerns.

MEASUREMENT: The measurement of this BMP is the number of illicit connection investigations and their resolutions. In 2014, forty-Four reports regarding illicit discharges or connections were investigated. The significant increase in discharges reported can be attributed to increased enforcement, education, public involvement and responsibility.

REDUCTION OR BENEFIT: The benefit of this BMP is an active record of illicit connection inspections, enforcement, and the means of resolving the problem. As illicit connections are removed from the storm drain system the receiving waters have less pollution.

IMPLEMENTATION: Salt Lake City will continue the implementation of this BMP by maintaining an updated database and filing system. The Storm Water Program Manager is responsible for these records and for keeping an updated database of the location, response and enforcement on illicit connections. In 2014, the Storm Water Program implemented a GIS database to track illicit connections. No illicit connections were detected during the reporting period.

BMP 26: Review all new development plans for compliance and illicit connections.

GOAL: The goal of this BMP is to insure that all new commercial and industrial development plans are in compliance and that illicit connections to the storm drain are not constructed.

DESCRIPTION: Salt Lake City Public Utilities has a design and review team that reviews all development plans to insure that illicit connections to the storm drains are not constructed. The design and review team makes sure that the storm drain system is properly connected to the storm drain and not to the sanitary sewer. Additionally, they insure that all laterals that should tie into the sanitary sewer are properly connected. The final review is from the inspection

team that actually works with contractors and developers to make sure that the laterals are physically connected to the proper system.

MEASUREMENT: The measurement for this BMP is the number of plans reviewed.

REDUCTION OR BENEFIT: The benefit of this BMP is an assurance that new connections are properly made. This eliminates illicit discharges to the storm drain system that would be untreated and pollute the receiving bodies of water. Additionally, it provides consistent guidance to the business community.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP by utilizing the design and review team as well as on site inspections to make sure all new developments are properly connected. January 1, through June 30, 2015 Salt Lake City reviewed 469 development plans for compliance and illicit connections.

BMP 27: Promote City County Health Department Hazardous Waste Collection Days.

GOAL: To provide the residents of Salt Lake City with a collection day where, they can properly dispose of household hazardous waste.

DESCRIPTION: Salt Lake City Public Utilities has promoted this BMP by providing information to the general public. Fliers have been inserted in Salt Lake City customer water bills. Salt Lake City will continue to promote the collection of household hazardous waste collection events as well as provide information for the HHW collection facility located at 6030 West 1300 South including Facilities hours of operation, phone number, and the type of Household hazardous wastes that are accepted. Salt Lake City will also encourage reusing the products when possible. For example, paint is used by the graffiti removal program and is available free to the public. Recently E-Waste has been added to the program residents can drop off old electronics at the above mentioned address free of charge.

MEASUREMENT: The measurement for this BMP is the fliers, inserts, and additional information provided by Salt Lake City to promote the Electronic and Household Hazardous Waste Collection at Salt Lake City-County Health Departments permanent facility.

REDUCTION OR BENEFIT: The benefit of this program and BMP is providing a convenient way to properly dispose of broken or unused Electronics, computers, monitors and other household hazardous waste. As the program has developed new ideas such as the reuse program are being implemented. Pollutants that may have been causing potential damage to surface and ground water are eliminated.

IMPLEMENTATION: Salt Lake City Public Utilities has implemented this BMP by hosting Household Hazardous Waste Collection Days in conjunction with Salt Lake Valley Health Department (SLCHD). The amount of HHW collected in 2015 was 40,250 pounds. In addition to the HHW waste collection SLCHD also collected 22,236 pounds of electronic waste (e-waste).

In addition to the hazardous waste collection Salt Lake City has implemented a program to dispose of unwanted or unused pharmaceutical drugs. Drop boxes are located at the Pioneer Police Office and the Public Safety Complex. Over the counter drugs are also accepted. From January 1, 2015 through June30, Salt Lake City collected 760.9 pounds of pharmaceutical drugs which were disposed of and incinerated. The result of this program has a positive impact on water quality and the community by keeping the unused drugs out of the hands of our youth and substance abusers by destroying the drugs by means of incineration.

BMP 28: Continue a program for investigating illicit flows and connections.

GOAL: To conduct on-going field screening in the MS4 to resolve any illicit connections or flows:

DESCRIPTION: Salt Lake City Storm Water Utility has a program for investigating illicit flows or connections. Wet Weather Screening and Dry Weather Screening Programs screen the MS4. The intent of these two programs is to screen suspected major storm sewer outfalls for the presence of excessive pollutants in discharges from the MS4. Salt Lake City maintains a series of storm drain maps for the entire City system. Any suspected illicit flows would be investigated upstream until resolved.

The Wet Weather Screening will include the following field measurements: Temperature, Total Dissolved Solids, pH, and Dissolved Oxygen. A field analysis of Total Chlorine Residual will also be done. The laboratory analysis will include: Biochemical Oxygen Demand, Chemical Oxygen Demand, Total Suspended

Solids, Total Dissolved Solids, Total Nitrogen, Total Kjeldahl Nitrogen, Total Phosphorous, Dissolved Phosphorous, (Total and Dissolved Cadmium, Copper, Lead, Zinc, Arsenic, Chromium, Cyanide, Nickel, Selenium, Silver) and a pH Oil & Grease.

The Dry Weather Screening will include the following field measurements when a suspected flow is identified. Field analysis will include: temperature, pH. Total Chlorine Residual, Copper, Phenols, detergents, flow rate, odors, color, clarity, floatables, deposits/stains, biological growth, vegetation, and structural conditions will also be noted. Chapter VI of this annual report further details dry weather screening and documentation for the year reported.

MEASUREMENT: The measurement for this BMP is the data collected from the area screened during the life of the permit and the illicit flows removed from the MS4.

BENEFIT OR REDUCTION: The benefit of this BMP is the screening of the system and removal of illicit flows that discharge to the Waters of the State.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP with Dry and Wet Weather Screening of the MS4. The Permit requires the entire storm water system to be screened during the life of the Permit. During 2015 Salt Lake City storm drain crews systematically clean and inspect the storm drain system using the map book, any suspected illicit discharges identified are reported and investigated to find and eliminate the source. In addition the stormwater group responds to all reports of illicit discharges or connections. A database and GIS management system is used to track all reported illicit discharges and illegal connections.

BMP 29: Implement Memorandum of Understanding (MOU) with Salt Lake City Public Utilities and Salt Lake County Health Department.

GOAL: To have a MOU between Salt Lake City Public Utilities and the Salt Lake County Health department regarding enforcement of State, County and Local rules, regulations, and Ordinances regarding the MS4.

DESCRIPTION: Salt Lake City Public Utilities and Salt Lake County Health Department will be required to enforce State and local storm sewer, ordinances, and regulations. Salt Lake City has enacted a storm water sewer system ordinance that states the following: The only substances dischargeable

under the ordinance into the city’s storm sewer are listed in the General Permit, Permit # UTS000002 issued to Salt Lake City by the State of Utah. All other such waters must be discharged into the City’s sanitary sewer system. The Health Department also has statutory authority to control possible sources of pollution into the City’s municipal storm sewer. Discharges associated with industrial activities and the quality of storm water discharges from industrial activities. City Ordinance, Health Regulations and the Utah Water Quality Act are ordinances and regulations that are used to promote public health and environmental health quality. Salt Lake City and the Health Department met and prepared a MOU in October 1993. The MOU discusses the procedures and methods that will be used to handle illicit connections, and illegal discharges.

MEASUREMENT: The measurement for this BMP is the number of illicit discharges and illegal connections that are resolved as a result of this MOU between the two agencies.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is an understanding of the procedures, and methods used to deal with illicit connections and discharges between Salt Lake City and the Health Department. With this understanding the agencies are able to work together in a cooperative effort in making sure the illicit connections and discharges are properly handled and enforced. As illicit connections and discharges are removed from the storm drainage system fewer pollutants are discharged to the Waters of the State.

IMPLEMENTATION: Salt Lake City Public Utilities and the Health Department met in September of 1997, to discuss the MOU and develop ways to continue working together on illicit connections and discharges. Salt Lake City Public Utilities will continue implementing this BMP by working with the Health Department regarding illicit connections and Illegal discharges to the municipal separate storm sewer system. Salt Lake City and Salt Lake County Health Department are working on updating the MOU and should be finalized sometime in 2015

BMP 30: Maintain staff to respond to reports of illicit discharges.

GOAL: To have a staff available to respond to any illicit discharges and resolve the problem with clean up, and/or Cease and Desist order and or Notice of Violations issued by SLC and or SLCHD.

DESCRIPTION: Salt Lake City Storm Water Quality has three full-time positions on staff to respond to any reports of illicit discharges and spills. The personnel are trained to respond, identify the pollutant, and investigate the source of the discharge and use regulatory authority to enforce actions against violators so that the illicit discharge activity is corrected.

MEASUREMENT: The measurement for this BMP is the number of illicit discharges that have required response and correction.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is having a resource available to respond to and correct illicit discharge activity, and finding a resolution to the problem. As illicit discharges are removed from the storm drain system the receiving water bodies become less polluted.

IMPLEMENTATION: This BMP has been implemented since September 1993, when a position for the Industrial Storm Water Coordinator was filled, and another full time position for the Stormwater Program Manager was filled in 2010. In 2014, an additional full time employee was added to assist in the response to reports of illicit discharges. In addition, other department personnel have been trained to respond to illicit discharges. In cases where an enforcement action is required against the responsible party, the Salt Lake County Health Department or State of Utah, Division of Water Quality may also participate in the action.

BMP 31: Promote interagency cooperation concerning illicit discharge investigation.

GOAL: To work together in a cooperative effort with other Regulatory agencies to resolve illicit and or illegal discharges.

DESCRIPTION: A cooperative effort between the agencies for a thorough investigation, assessment, and gathering of evidence relating to illicit and illegal discharges has been promoted by Salt Lake City Public Utilities. Salt Lake City notifies the Salt Lake County Health Department and State of Utah, Division of Water Quality regarding illicit flows requiring their assistance. The Salt Lake City Storm water quality group work with the other agencies by providing maps, tracing the system to the illicit discharge and any other means required for investigating and resolving the illicit flow.

MEASUREMENT: The measurement for this BMP is the number of illicit flows

investigated and corrected.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is the interagency cooperation regarding the investigation, and gathering of evidence to resolve illicit and illegal discharges. As these illicit discharges are removed from the storm drain system the receiving water bodies become less polluted.

IMPLEMENTATION: Salt Lake City Public Utilities will continue implementing this BMP by working with other agencies tracing and eliminating illicit discharges. Salt Lake City has worked with the Salt Lake County Health Department, State of Utah Division of Water Quality, and the United States Environmental Protection Agency on past illicit discharge investigations. Salt Lake City also works internally with Fire, Police and HAZMAT crews to respond and investigate illicit and spills discharges.

BMP 32: Pursue prosecutions and court ordered solutions to contamination problems.

GOAL: To resolve significant contamination problems that may require court orders and prosecutions.

DESCRIPTION: Salt Lake City Storm has the responsibility of eliminating significant contamination problems discharging to the MS4. In some incidents the contamination problem may be significant enough that it requires court orders and/or prosecutions.

MEASUREMENT: The measurement used for this BMP is the number of prosecutions and court ordered solutions that resolve significant contamination problems. Salt Lake City has had one case where we worked with the Salt Lake Valley Health Department regarding a court ordered solution.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is in eliminating serious illicit discharges entering the storm drain system. The court ordered solutions are intended to get the violator to comply with the storm water regulations. The reduction of significant contamination problems from the receiving water bodies has a major impact on the improvement of water quality.

IMPLEMENTATION: Salt Lake City Public Utilities will continue implementing this BMP through field investigation such as Dry and Wet Weather Screening, responding to reports of illicit discharges/connections and, working with

interagency entities regarding illicit and illegal discharges. Salt Lake City's Storm Water Quality Coordinators will investigate and involve the proper regulatory agency regarding any findings with significant contamination problems. The State of Utah, Division of Water Quality, and the Salt Lake County Health Department will continue to be made aware of significant contamination problems found in Salt Lake City.

BMP 33: Investigate Dry Weather flows.

GOAL: To Dry Weather Screen the MS4 flows to systematically investigate and remove illicit flows.

DESCRIPTION: Salt Lake City's Storm Water Inspectors will investigate sources of observed dry weather flows. Inspectors will rely mainly on visual observation and use of colorimetric field test kits. This measure will require personnel to trace an observed discharge through the storm drain system.

MEASUREMENT: The measurement used for this BMP is the portion of the MS4 monitored, and the illicit discharges removed.

REDUCTION OR BENEFIT: The benefit of this BMP is the elimination of illegal connections and discharges to the storm drain system. As the illicit discharges are removed from the storm drain system the receiving water bodies become less polluted.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP by investigating dry weather flows through systematically inspecting and cleaning the entire Storm water system throughout the permit cycle conditions of the system including boxes, ditches and outfalls will be noted. During January 1, through June 30, 2015, Salt Lake City Storm Drain crews Storm Drain crews inspected 346,060 feet of storm drain pipe, gutter and ditches 9,421 Inlet boxes and 47 detention basins. The crews are trained to observe and report any unusual or suspected illicit flows or discharges to the Storm Water Coordinator.

BMP 34: Develop a formal storm drain spill response plan.

GOAL: To have a storm drain spill response plan that is consistently used when a spill occurs.

DESCRIPTION: Salt Lake City Public Utilities has developed a storm drain spill response plan that. Salt Lake City Public Utilities and the Salt Lake City Fire Department work together concerning the initial response to containment and cleanup of spilled materials. The departments involved in the spill response plan perform their role and work with the other teams to make sure that a safe, consistent, and efficient containment and cleanup occurs. The Fire Department takes the commanding role and determines what level of spill has occurred. Once a determination has been made Incident Response and Public Utilities assist with system maps and spill response material if necessary that also may include containment, and clean up decisions regarding proper disposal.

MEASUREMENT: The measurement for this BMP is the number of storm drain spill responses.

REDUCTION OR BENEFIT: The benefit of this BMP is a consistent and, safe spill response plan. The spill response plan provides the best possible approach to cleaning spills and eliminating or mitigating pollutants from entering the storm drain system. Thus, the reduction is keeping materials from spills contained and out of receiving water bodies.

IMPLEMENTATION: Salt Lake City Public Utilities will continue implementing this BMP to formalize the spill response process. Salt Lake City Public Utilities has worked with Incident Response and the Fire Department on past incidents that have occurred and will continue work with Salt Lake City Fire by providing maps of the storm and sanitary drainage systems, installing booms and helping with the cleanup efforts. The Salt Lake County Health Department is also involved in the process to make sure cleanup meets their requirements and to issue Notice of Violations when appropriate. The reporting, investigation and response is maintained in a database and the city GIS system. Salt Lake City responded to 24 storm drain spills in 2015.

BMP 35: Develop a list of certified contractors and suppliers for spill response.

GOAL: To have a resource with supplies available to respond to spills.

DESCRIPTION: Salt Lake City has a trained Hazmat Response team capable of handling most of the spills in Salt Lake City. The Hazmat Response team is equipped with protective clothing, booms, pads, pumps, and drums to contain

and cleanup spills. Hazmat Response has a list of certified contractors used for major spills and spills beyond their scope. Salt Lake City uses the list provided by the State of Utah. In addition Salt Lake City will recommend various vendors to Businesses and industries responsible for the spills upon request.

MEASUREMENT: The measurement for this BMP is the generated list of certified contractors.

REDUCTION OR BENEFIT: The benefit of this BMP is the resources available to handle spills as they occur. Thus, pollutants are eliminated or mitigated from getting into the storm drain system.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP of using the Hazmat Response team. The other certified contractors are used upon request or as needed according to the circumstances of the spill.

BMP 36: Provide OSHA HAZWOPER training to applicable personnel.

GOAL: To have personnel trained to respond to spills correctly and safely.

DESCRIPTION: OSHA required Hazardous Materials Operations the training is given by a certified instructor. The class focuses on proper techniques for dealing with spills. This includes: safety, level of protective clothing required, chemical identification, proper containment, decontamination procedures, and proper disposal measures. The training for drainage personnel qualifies them to assist the HAZMAT team. HAZMAT is in charge of these types of spills. The drainage crew involvement might include assistance in determining where the fugitive spill conveys through the drainage system and locations that may require evacuation and other measures.

MEASUREMENT: The measurement for this BMP is the number of personnel trained to respond to spills.

REDUCTION OR BENEFIT: The benefit of this BMP is the availability of trained personnel to work with HAZMAT on hazardous spills. The result is a better cleanup effort, which mitigates pollutants entering the storm drain system.

IMPLEMENTATION: Salt Lake City Public Utilities has implemented this BMP by providing 16-Hour HAZWOPR training to Salt Lake City Public Utility Employees.

In 2015, 36 Salt Lake City Public Utility employees received HAZWOPER training.

BMP 37: Continue to promote public reporting of illicit discharges.

GOAL: To have a program developed that promotes the interest of pollution prevention to the public, and provides information regarding illicit flows and reporting procedures.

DESCRIPTION: The purpose of this BMP is to provide information to the public regarding recognition of illicit flows, and reporting procedures when an illicit discharge has occurred. With this information available the public can take an active role in preventing illicit discharges that pollute their local rivers and streams. Salt Lake City uses a brochure that is inserted into the Storm Water Utility bills to provide information to the public regarding recycling, ways to dispose of hazardous waste, and other pollution prevention tips, the brochure has phone numbers to call regarding questions or information including the Salt Lake City Public Utilities and Salt Lake County Health Department 24-hour hotlines phone numbers.

MEASUREMENT: The measurement for this BMP is the number of illicit flows reported and resolved.

REDUCTION OR BENEFIT: The benefit of implementing this Best Management is a program that provides an opportunity for public involvement in removing illicit flows to their waterways. With an educated public and a program available to report illicit flows more illicit discharges will be investigated and resolved. As these illicit discharges are removed from the storm drain system the receiving waters become less polluted.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP by providing information to the public regarding recognition and reporting procedures of illicit discharges. The quarterly bill stuffers and newspaper inserts will be used to provide pollution prevention information and numbers to call for problems in the community. Since 1998 The Storm Water Coalition has a budgeted for public information and education. The tasks involved included radio and TV advertising, a public perception poll, the newspaper insert, a web page, and business partnerships as a means for education and information. In 2012 the Stormwater Program developed a door hanger for response to stormwater pollution and a flier to be distributed in residential utility billing.

From January 1, through June 30, 2015, 24 illicit discharge incidents were reported and investigated. The reports came in from various sources including SLC dispatch, S.L. City employees, County Health, and businesses.

BMP 38: Continue education program for industrial users on oil and toxic materials disposal.

GOAL: To have an education program that is targeted to industry and business audiences encouraging proper disposal of oil and toxic materials.

DESCRIPTION: The purpose of this BMP is to provide education to industries and businesses that encourages the proper disposal of oil and toxic materials. The Department of Public Utilities has an industrial storm water and wastewater program that provides information to industries. The storm water and wastewater programs are resources that industry can use to obtain information regarding proper disposal methods, both programs make inspections of regulated facilities for compliance of clean water regulations. Additionally, the Salt Lake County Storm Water Coalition has a program that provides public education and information.

MEASUREMENT: The measurement for this BMP is the number of industries and businesses that are educated and properly disposing oil and toxic materials.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is to provide information and education to industry regarding proper disposal of oil and toxic material. As the industries are educated they become more environmentally aware and generally are encouraged to properly dispose of oil and toxic materials. Proper disposal reduces the amount of pollutants that may otherwise pollute the storm drain system, and Waters of the State.

IMPLEMENTATION: Salt Lake City will continue implementation of this BMP through distributing education material to industries and businesses. Inspections will also be conducted at industries that are regulated by the storm water, and wastewater programs. Salt Lake City supports the Salt Lake County Storm Water Coalition program which provides public information and education. Salt Lake City will continue to support these programs to help educate proper disposal of oil and toxic materials via brochures, BMP guidance documents and provide internet links for various sites including the State, City, County and EPA websites.

BMP 39: Continue education program for residential users on oil and toxic materials disposal.

GOAL: To have an education program aimed at residential audiences to promote the proper disposal of oil and household toxic materials.

DESCRIPTION: The purpose of this BMP is to provide education to residential users on the proper disposal of oils and household hazardous waste. The Department of Public Utilities provides brochures with additional information in the Storm Water Utility bills (approximately 48,000 accounts). These bill stuffers promote the Household Hazardous Waste facility located at the landfill. They are used to announce the Hazardous Waste and prescription drug drop off days held within Salt Lake City County. They also provide information regarding what qualifies as a hazardous waste, proper disposal methods, and locations. Radio and Television advertising also provided through the Salt Lake County Storm Water Coalition is another educational tool that has been used to educate residential audiences regarding proper disposal of used oils and hazardous waste.

MEASUREMENT: The measurement for this BMP is the number of residents that are educated and properly disposing of material at the Household Hazardous Waste Facility.

IMPLEMENTATION: Salt Lake City will continue the implementation of this BMP by providing information to residents regarding the proper disposal of oil and household toxic materials. The Public Utilities Department has an educational display in the foyer that provides information on storm water quality. The display is portable and is used at public meetings and events. In 2014, quarterly bill stuffers with disposal information, and numbers to call in the community were provided. The Salt Lake County Storm Water Coalition sponsors radio and television advertising in addition to radio and television the commercial are shown with movie trailers at local movie theaters. Salt Lake City will continue to support these programs to help educate the public of proper disposal of oil and toxic materials. Salt Lake City Public Utilities will continue to support “Household Hazardous Waste Community Collection Events”. Typically drop off days begin in June and go through September. Salt Lake City will continue to provide the residents with a schedule of hazardous waste collection locations and times. The Salt Lake county Health Department will transport the waste to the permanent facility at the landfill “e” waste has also been added to the list of items that can

be dropped off.

BMP 40: Continue procedures for reporting and investigating possible exfiltration of sanitary sewage to the storm drain system.

GOAL: To eliminate infiltration from the sanitary sewer into the storm drain system.

DESCRIPTION: The purpose of this BMP is to investigate the sanitary sewage collection system lines to address any exfiltration that may migrate to the storm drain system. The Sanitary Sewer Utility and Storm Water Utility for Salt Lake City are managed by the Department of Public Utilities. The manager over the two Utilities is responsible for coordinating the investigation, reporting, and the remedy for any exfiltration or infiltration problems that occur in the storm drain or sanitary sewer systems. The methodology used includes the use of a camera to televise the sanitary sewer collection lines. The structural condition of the lines is checked to make sure a problem, or a future potential problem does not exist. Obstructions, in the line are part of the notations made by the camera operator. The operators videotape any areas of concern and the video is viewed by the Sanitary Sewer Manager and if necessary a Public Utilities Engineer. They will determine what action is needed to resolve any exfiltration or infiltration problems. In addition to video inspections of the sanitary sewer system if any suspected problems are observed during inspection of the storm sewer system the cameras may be used in the storm drain system as a means of investigation for possible illicit connections to the storm sewer system.

MEASUREMENT: The measurement for this BMP is the number of problems resolved regarding infiltration of sanitary sewage to the storm drain system. The aggregate portion of the collection system investigated is another measurement.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is to have a storm drain system that is not receiving infiltration of sanitary sewage. The sanitary sewer collection system also benefits from investigating the lines to resolve any problems. The benefit of maintaining two separate systems reduces pollutants as they discharge to receiving waters. By eliminating infiltration of sanitary sewage into the storm drain system the pollutants remain in the sanitary sewer collection lines and convey to the Wastewater Treatment Plant for proper treatment. Thus, the Waters of the State are not receiving untreated raw sewage that may pose a threat to public health, safety, or welfare, or create

a nuisance.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP to eliminate sanitary sewage infiltration into the storm drain system. The sanitary sewer collection crew televises lines, which are prioritized by need. Emergency situations or suspicious collection line problems are first priority. New installations of collection lines are televised after their completion. The remaining sanitary sewer collection lines are systematically televised, inspected, and repaired/replaced annually according to a mapping pattern that assures the lines are all televised within a 15-year period.

MAINLINES

| YEAR | SSO | Block | Clean Root Cut | Repair Install Replace | Rehab | Televise |
|------|-----|-------|-------------------|---------------------------|-------|-------------|
| 2015 | 2 | 38 | 229,694 ft. | 21 | 38 | 651,853 ft. |

MANHOLES

| YEAR | Adjust | Inspect | Replace & Install | Repair | Trouble Calls | Swr. Adj. |
|------|--------|------------|-------------------|--------|---------------|-----------|
| 2015 | 52 | 14,933 ft. | 18 | 46 | 229 | 23 |

BMP 41: Maintain an industrial user database.

GOAL: To have an industrial users database available for tracking purposes of industrial permitted facilities.

DESCRIPTION: Salt Lake City uses City Works for industrial users. As inspections are made and through field screening activities the database is modified. Industries that are determined to contribute substantial pollutant loadings to the City Storm Drain System are kept in this database. The intent of the database record is to be able to track potential pollutants upstream of any outfall. If a certain pollutant is detected in a drainage system outfall, a search of the database will reveal all upstream industries that have indicated the constituent

pollutant is present at the industrial site.

MEASUREMENT: The measurement for this database is an updated database record that is available when a pollutant is detected and traced back to the source as a result of the database.

REDUCTION OR BENEFIT: The benefit of this database is as a resource for tracking potential pollutants upstream of any outfall. The search of the database assists in the efforts and resolving the problem. The reduction of pollutants to the City storm drain system may result from using this database.

IMPLEMENTATION: Salt Lake City has implemented this BMP by updating the records on a relational database. The database is updated with site inspections and SWPPP reviews.

BMP 42: Obtain and review SWPPP prepared by industrial users within the Salt Lake City area.

GOAL: To obtain copies and review SWPPPs prepared by industries in the Salt Lake City area and make sure of their implementation.

DESCRIPTION: Salt Lake City's Storm Water Coordinator is responsible for setting up appointments with the industries in Salt Lake City regarding preparation and implementation of SWPPPs.

MEASUREMENT: The measurement for this BMP is the number of industries that have prepared a SWPPP.

REDUCTION OR BENEFIT: The benefit of obtaining an implemented SWPPP is the training of employees and pollution prevention measures that are in the plan. With a good plan that is properly implemented the industry reduces the amount of pollutants that may have entered the City's Storm Drain System.

IMPLEMENTATION: Salt Lake City's Industrial Storm Water Coordinator will continue implementing this BMP. Appointments are set up with the industries that have been identified with permit requirements. Information such as the Guidance Document for Storm Water Management and the website <http://www.pweng.slco.org/stormwater/html/guide.html> are provided to the business. The State of Utah information sheet regarding requirements for the

contents of a plan is provided. From January 1, through June 30, 2015 Salt Lake City Stormwater Staff updated the Industrial users' data base and visited 4 sites. Salt Lake City will continue to review Industrial SWPPPs to verify that they are prepared and have been implemented.

BMP 43: Identify and prioritize industrial and priority commercial groups.

GOAL: To identify, prioritize and maintain an inventory of industrial and priority commercial sites. And to provide information to target groups with Best Management Practices (BMPs) regarding water quality, including notifying the industrial facilities of the compliance requirements of the State General Industrial Storm Water Permit.

DESCRIPTION: The purpose of this BMP is to identify industrial and priority commercial groups that may have an adverse impact on storm water quality. The State of Utah Industrial General Multi-Sector Permit for Storm Water identifies target industrial groups. These groups are required to obtain a State /City issued Storm Water discharge Permit and implement Storm Water Pollution Prevention Plans (SWPPP), educational material and or sector specific requirements is distributed to these industries. Priority commercial groups will be given applicable informational material pertaining to their business by Salt Lake City's Storm Water Quality Coordinator during site visits.

MEASUREMENT: The measurement of this BMP is the number of industrial permitted facilities. In addition to permitted industrial targeted priority commercial groups are informed and provided guidance material.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is to provide water quality educational material to target industrial and priority commercial groups. The information provided facilitates industrial facilities the opportunity to meet the requirements of the State/City Storm Water Discharge Permits. The benefit of implementing this BMP is that industrial facilities are educated about water quality and, have an understanding of the regulations, and BMPs that they can implement to be in compliance. As a result proper facility management, proper disposal methods, and water quality measurements are available for implementation. With implementation of SWPPP and BMPs a reduction of pollutants are discharged to the storm drain system, and Waters of the State. In addition, priority commercial businesses are educated about water quality, pollution prevention and BMP implementation.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP by distributing information and educational material including providing links to various websites and distributing pamphlets and guidance documents when the opportunity provides itself to industrial and priority commercial businesses. The implementation of BMP 38 regarding education material for industrial users on oil and toxic materials disposal compliments this particular BMP. Salt Lake City has developed a Storm Water information pamphlet mailed out to over 90,000 residents in March of 2009. An updated pamphlet was created and distributed to approximately 48,000 in March 2013. Salt Lake City will continue implement this BMP in 2015.

BMP 44: Staff a position for coordinating storm water pollution prevention.

GOAL: To have a full time position available to work with Industrial and priority commercial businesses to minimize the pollutants released to the Salt Lake City storm drain system.

DESCRIPTION: Salt Lake City Public Utilities has three full time employees, to work with Industrial and priority commercial businesses to minimize the pollutants released to the storm drain system. The Storm Water Quality department is responsible and trained to work with other agencies and departments on illicit discharges or connections, and spill response. The Storm Water Quality group works with Industrial and priority commercial businesses requiring Industrial businesses that fall under SIC/NAICS codes to obtain A State UPDES permit or A No Exposure Certification (NEC), an inventory of priority commercial business will be kept and updated by the Storm Water Quality Coordinator, educational material including pamphlets, guidance documents and links to websites and will distributed various commercial businesses when the opportunity presents itself.

MEASUREMENT: The measurement for this BMP is staffing positions to oversee the MS4 permit.

REDUCTION OR BENEFIT: The benefit of this BMP is having staff available to handle storm water issues and assist the business community in meeting regulations. Water quality improvement to the receiving water bodies is a major goal of the program. Implementation of the BMPs in the permit should have an impact on this goal.

IMPLEMENTATION: Salt Lake City’s staff will continue implementation of this BMP. These positions will work closely with the Salt Lake City POTW pretreatment coordinator and the Salt Lake County Health Department. With a combined effort illicit discharges will be removed from the storm drain system and industry will receive consistent guidance. In 2014 Salt Lake City added a third full time position to the program.

BMP 45: Distribute water quality education materials to Industrial and priority commercial facilities.

GOAL: To reduce the discharge of storm water pollutants from industrial and commercial businesses by taking a proactive approach in educating these users on illicit discharges and the potential impacts; particularly in relation to their specific business or business process.

DESCRIPTION: The City will provide information to industrial and commercial businesses about water quality impacts associated with illicit discharges and improper disposal of waste. The information distributed is aimed at addressing specific users that have facilities or business that are more likely to have discharges that may have an adverse effect on storm water quality. The intent is to educate industrial and commercial businesses about their activities that could potentially impact water quality, regulations and consequences against prohibited discharges.

MEASUREMENT: The measurement of this BMP is the education provided to the industrial and commercial businesses about water quality impacts associated with illicit discharges and improper disposal of waste.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is to provide water quality educational material to target industrial and priority commercial groups about water quality so that they have an understanding of the regulations, and BMPs that they can implement to be in compliance. As a result proper facility management and proper disposal of waste, the storm drain system and receiving water bodies become less polluted.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP by distributing information and educational material including providing links to various websites and distributing pamphlets and guidance documents when the

opportunity provides itself to industrial and priority commercial businesses.

BMP 46: Develop a storm water quality-training program for development review personnel.

GOAL: To expand the knowledge of site development review personnel regarding storm water pollution prevention techniques and practices.

DESCRIPTION: The Salt Lake City Public Utilities Engineering Department is responsible for reviewing site development. As part of this responsibility the review personnel require the development to meet regulations requiring the development and submission of temporary and permanent erosion control plans for both subdivisions and building site development. Salt Lake City development review personnel are trained regarding their role in making sure erosion control plans are included in new development. This training will address storm water pollution that may be contributed through construction activity by uncontrolled erosion and sedimentation, fueling activities and dust generation. Storm water permitting from the State of Utah, BMPs, and wheel cleaning regulations are additional topics discussed in the training.

MEASUREMENT: The measurement for this BMP is the training provided to the development review personnel. The quality of the training and topics discussed should focus on storm water quality techniques and practices for site development.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is providing support and training to the development review personnel to expand their knowledge of storm water pollution prevention techniques. With this information provided to the development review personnel, erosion control plans, and storm water pollution prevention techniques are addressed during reviews. Thus, developments are required to have implemented pollution prevention at the site. As a result fewer pollutants reach the storm drain system and Waters of the State.

IMPLEMENTATION: Salt Lake City will continue to implement this BMP by providing training to development review personnel as needed during the permit period. Salt Lake City Storm Water personal attended several training seminars including the APWA Fall & Storm Water conference in 2014.

BMP 47: Coordinate with Salt Lake County regarding BMP guidance information for construction sites.

GOAL: To have a guidance manual of BMPs for construction sites that can be used by contractors in the Salt Lake area.

DESCRIPTION: The purpose of this BMP is to have a guidance document available for contractors regarding storm water management during construction activities.

MEASUREMENT: The measurement for this BMP is the quality of the guidance document and the BMPs at construction sites that are implemented as a result of this document.

REDUCTION OR BENEFIT: The benefit of this guidance manual is to provide contractors with information regarding BMPs that may be implemented at their construction site. As these BMPs are implemented, storm water pollution prevention techniques and practices are used, and mitigate pollutants from conveying to the storm drain systems and Waters of the State.

IMPLEMENTATION: The guidance manual was developed in May of 1994. And updated in 1999 Salt Lake City has referred this guidance document, “BMPs for Construction Activities” to several contractors in Salt Lake City. Salt Lake County produced a Guidance Document for Storm Water Management, updated manuals and BMP guidance on their website <http://www.pweng.slco.org/stormwater/html/guide.html>.

BMP 48: Continue to obtain and review SWPPP prepared by contractors.

GOAL: To obtain SWPPPs prepared by contractors on all sites in Salt Lake City disturbing greater than one acre or site less than one acre that is part of a common plan of development.

DESCRIPTION: The purpose of this BMP is to obtain and review SWPPPs to insure construction sites are implementing pollution prevention techniques and practices. The State of Utah Storm Water Permit for Construction Activities requires contractors to develop and implement a SWPPP for construction activities that disturb sites greater than one acre or less than one acre that are part of a common plan of development. Salt Lake City Public Utilities requires a

permit for sites that disturb more than one acre.

MEASUREMENT: The measurement for this BMP is the number of construction sites which meet the greater than 1 acre criteria, and or part of a CPOD that have developed and implemented a SWPPP.

REDUCTION OR BENEFIT: The benefit attributed to this BMP is to have construction sites that are in compliance with storm water regulations. The implementation of a SWPPP with BMPs utilized will reduce the problems with pollutants including uncontrolled erosion and sedimentation from entering storm drain systems and Waters of the State.

IMPLEMENTATION: Salt Lake City will continue implementing this BMP. The Storm Water Quality personnel review the permits, and inspect the construction sites. All projects that have construction activity requiring a Salt Lake City Construction Activities Permit will be reviewed by the Salt Lake City plan review engineers or a registered stormwater reviewer. All permitted projects are required to obtain a NOT (Notice of Termination) which requires a final inspection before the release of a certificate of occupancy.

BMP 49: Develop a program to enforcement SWPPP.

GOAL: To have clear understanding of the process for enforcement of non-compliance from construction activity within Salt Lake City.

DESCRIPTION: The purpose of this BMP is to have a process in place regarding the procedures to enforce non-compliance of permitted construction projects through ordinance 53 Title 17, the UPDES and City General Construction Permit. The Salt Lake City Department of Public Utilities is responsible for reviewing the SWPPP, and inspecting construction projects for compliance.

MEASUREMENT: The measurement for this BMP will be the number of enforcement actions taken by Salt Lake City on construction projects that are required to develop and implement a SWPPP for projects that are greater than one acre or projects less than one acre that are part of a common plan of development.

REDUCTION OR BENEFIT: The benefit of this BMP is to have an enforcement program developed for Storm Water Pollution Prevention. The enforcement

policy will be utilized to bring construction sites into compliance with the storm water regulations. The benefit of the enforcement procedures will be construction projects meeting compliance thus fewer pollutants entering the storm drain system and Waters of the State.

IMPLEMENTATION: Salt Lake City has an interdepartmental understanding of the enforcement procedures regarding Storm Water Pollution Prevention and plans to have a written SOP for enforcement procedures in place by the next reporting period. Salt Lake City has a Storm Water General Permit for Construction Activities on Sites 1-5 acres. Salt Lake City will have enforcement authority on these construction sites. Salt Lake City will attempt revise the Salt Lake City Ordinance include all Construction site over 1 acre and site that disturb lees than one acre that are part of a common plan of development. Or sites less than one acre that are in “a sensitive area”.

BMP 50: For City projects identify erosion control measures as a specific bid item.

GOAL: To have consistent erosion control measures for City projects.

DESCRIPTON: Salt Lake City will identify erosion control measures as a specific item in contract bid schedules and performance bond requirements. The purpose of identifying the erosion control measures is to make sure they are implemented to reduce pollutants from construction activity. Construction activity can contribute to storm water pollution through uncontrolled erosion and sedimentation, fueling activities and dust generation. Erosion control plans are needed temporarily during grubbing and the construction phase, and permanently after construction is complete. All construction projects disturbing greater than or equal to one acre or are required to apply for coverage under the Salt Lake City and State of Utah general permit for construction activity. Sites less than one acre that are part of a common plan of development are also required to apply for coverage. The General permit also requires contractors to prepare and implement a SWPPP for construction activity.

MEASUREMENT: The measurement for this BMP is the City projects that have erosion control measures as specific bid items.

REDUCTION OR BENEFIT: The benefit of implementing this BMP is requiring contractors to control erosion on projects within the city. This requirement

mitigates the transportation of storm water pollution through uncontrolled erosion and sedimentation from construction activity.

IMPLEMENTATION: Contractors are required under general contract conditions to obtain a general permit for construction from the Salt Lake City and the State of Utah when disturbing 1 acre or greater in addition Salt Lake city requires permits to be pulled for projects that are less one acre if the project are in a sensitive areas.

BMP 51: Participate in education seminars conducted by State of Utah and other agencies.

GOAL: To share information and new techniques through storm water seminars.

DESCRIPTION: Seminars conducted by the State of Utah and other agencies provide information to educate and train storm water personnel. New techniques and regulations are introduced to assist the storm water personnel in better job performance.

MEASUREMENT: The measurement of this BMP is the training and dissemination of information made available to Salt Lake City storm water personnel.

REDUCTION OR BENEFIT: The benefit of this BMP is a consistent approach to resolving storm water issues State wide and sharing of information.

IMPLEMENTATION: Salt Lake City Storm Water Quality Staff has implemented this BMP by attending seminars, conferences and training classes that have been made available including monthly USWAC, Task Force and Salt Lake County Storm Water Coalition meetings. In addition to the monthlies SWQ employees attended The Environmental Emergency Response Conference held by DEQ on April 16, 2015, in June of 2015 34 Salt Lake City employees including the storm water drainage crews attended and participated in a 16 hour Hazwoper class for first responders. UPDES sampling training put on by SLCo on February 25, the annual Watershed Symposium, 2 more SLC employees have attended and received RSI certifications, if fall of 2015 SLC employees will be attending the annual Stormwater Expo and the Watershed symposium.

INTRODUCTION

The purpose of this chapter is to document any proposed changes to the Storm Water Management Plan (SWMP). Salt Lake City has and will continue to base the SWMP on The 51 BMPs. The 51 BMPs in the Storm Water Management Plan have been organized to address the six minimum control measures, wet weather monitoring and the Industrial and high risk runoff as outlined in the permit. On August 1, of 2015 a *Draft* of the Storm Water Management Plan was revised and turned in to the State of Utah, the revised SWMP address the new MS4 permit requirements that was issued to Salt Lake City on February 1, 2015.

- A. Salt Lake City is currently working on the development and coordination of other departments within the city to address the new requirements of the *Pollution Prevention and Good Housekeeping for Municipal Operation program (O & M Program)*. Other requirements that Salt Lake City is working on is the inventory of Priority Commercial sites including an inspection enforcement program.

INTRODUCTION

The UPDES Permit requires that revisions to the assessments of BMPs and the fiscal analysis of the Permittee be reported. The following discussion identifies any such changes to these items.

A. BMP ASSESSMENTS

The current Storm Water Management Plan addresses all six of the minimum control measures identified in Salt Lake City’s current permit that became effective on February 1, 2015. Salt Lake City has organized the BMPs according to the six minimum control measures in addition to the six minimum control measures Salt Lake City also addresses the *“Pollution Prevention and Good Housekeeping for Municipal Operation Program”* (O & M Program). Other requirements that Salt Lake City is working on is the inventory of Priority Commercial sites including an inspection enforcement program.

B. FISCAL ANALYSIS

The Tables Below show the fiscal Analysis for SLC Storm Water Utility Fund. Section V provides the budget and expenditures for 2012 – 2015.

FIGURE III.1

| STORMWATER UTILITY ENTERPRISE FUND BUDGET SUMMARY FY 2013-2015 | | | | | | |
|---|-----------------------|------------------------------|--------------------------------|-------------------------------|-------------------------------|-------------------------------|
| SOURCES | ACTUAL 2010-2011 | AMENDED BUDGET 2011-12 | PROJECTED ACTUAL 2011-12 | Rate increase 0% | Rate increase 0% | Rate increase 0% |
| | | | | PROPOSED BUDGET 2012-13 | FORECAST BUDGET 2013-14 | FORECAST BUDGET 2014-15 |
| REVENUES | | | | | | |
| METERED SALES | \$ 7,706,410 | \$ 8,050,000 | \$ 8,050,000 | \$ 8,050,000 | \$ 8,050,000 | \$ 8,050,000 |
| INTEREST INCOME | 51,367 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| OTHER REVENUES | 28,221 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| TOTAL REVENUES | \$ 7,785,998 | \$ 8,151,000 | \$ 8,151,000 | \$ 8,151,000 | \$ 8,151,000 | \$ 8,151,000 |
| OTHER SOURCES | | | | | | |
| GRANTS & OTHER RELATED REVENUES | 1,579,714 | 516,000 | 516,000 | 516,000 | 516,000 | 516,000 |
| COUNTY FLOOD CONTROL * | - | - | - | - | - | - |
| IMPACT FEES | 235,794 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 |
| BOND PROCEEDS | - | 8,000,000 | 8,000,000 | - | - | - |
| TOTAL OTHER SOURCES | 1,815,508 | 8,716,000 | 8,716,000 | 716,000 | 716,000 | 716,000 |
| TOTAL SOURCES | \$ 9,601,506 | \$ 16,867,000 | \$ 16,867,000 | \$ 8,867,000 | \$ 8,867,000 | \$ 8,867,000 |
| EXPENSES & OTHER USES | | | | | | |
| EXPENDITURES | | | | | | |
| PERSONAL SERVICES | \$ 1,804,630 | \$ 1,956,611 | \$ 1,956,611 | \$ 2,035,289 | \$ 2,075,995 | \$ 2,117,515 |
| OPERATING & MAINTENANCE | 162,991 | 115,150 | 115,150 | 114,850 | 117,147 | 119,486 |
| TRAVEL & TRAINING | 3,084 | 8,980 | 8,980 | 10,445 | 10,654 | 10,867 |
| UTILITIES | 97,879 | 77,285 | 77,285 | 88,885 | 90,663 | 92,476 |
| PROF & CONTRACT SERVICES | 618,968 | 529,250 | 529,250 | 542,250 | 553,095 | 564,158 |
| PUBLIC SERVICES STREET SWEEPING | 236,000 | 240,000 | 240,000 | 240,000 | 244,800 | 249,696 |
| DATA PROCESSING | 157,649 | 160,000 | 160,000 | 160,000 | 163,200 | 166,464 |
| FLEET MAINTENANCE | 231,062 | 272,000 | 272,000 | 285,000 | 290,700 | 296,514 |
| ADMINISTRATIVE SERVICE FEE | 106,042 | 65,700 | 65,700 | 115,700 | 118,014 | 120,374 |
| PAYMENT IN LIEU OF TAXES | 72,656 | 115,000 | 115,000 | 183,400 | 187,068 | 190,809 |
| RISK MANAGEMENT | 34,089 | 80,000 | 80,000 | 55,000 | 56,100 | 57,222 |
| TRANSFERS TO GENERAL FUND | 386,912 | 401,903 | 401,903 | 401,903 | 409,941 | 418,140 |
| OTHER CHARGES AND SERVICES | 15,562 | 10,405 | 10,405 | 23,737 | 24,213 | 24,695 |
| TOTAL EXPENDITURES | 3,927,524 | 4,032,284 | 4,032,284 | 4,256,459 | 4,341,590 | 4,428,416 |
| OTHER USES | | | | | | |
| CAPITAL OUTLAY | 47,826 | 589,000 | 863,000 | 546,000 | 353,000 | 565,000 |
| CAPITAL IMPROVEMENT BUDGET | 6,202,961 | 12,693,000 | 11,423,953 | 7,094,000 | 5,210,000 | 3,310,000 |
| DEBT SERVICES | 587,469 | 1,400,000 | 1,400,000 | 1,200,000 | 1,200,000 | 1,200,000 |
| TOTAL OTHER USES | \$ 6,838,256 | \$ 14,682,000 | \$ 13,686,953 | \$ 8,840,000 | \$ 6,763,000 | \$ 5,075,000 |
| TOTAL USES | \$ 10,765,780 | \$ 18,714,284 | \$ 17,719,237 | \$ 13,096,459 | \$ 11,104,590 | \$ 9,503,416 |
| EXCESS REVENUE AND OTHER SOURCES OVER (UNDER) USES | | | | | | |
| | \$ (1,164,274) | \$ (1,847,284) | \$ (852,237) | \$ (4,229,459) | \$ (2,237,590) | \$ (636,416) |
| OPERATING CASH BALANCES | | | | | | |
| BEGINNING JULY 1 | \$ 9,632,436 | \$ 8,468,162 | \$ 8,468,162 | \$ 7,615,925 | \$ 3,386,466 | \$ 1,148,876 |
| ENDING JUNE 30 | \$ 8,468,162 | \$ 6,620,878 | \$ 7,615,925 | \$ 3,386,466 | \$ 1,148,876 | \$ 512,460 |
| Cash Reserve Ratio | 216% | 164% | 189% | 80% | 26% | 12% |
| Cash reserve goal above 10% | | | | | | |

FIGURE III.2

STORMWATER UTILITY
CASH FLOW

| | ACTUAL YEAR 2010-2011 | BUDGET YEAR 2011-2012 | BUDGET YEAR 2012-2013 | BUDGET YEAR 2013-2014 | BUDGET YEAR 2014-2015 | BUDGET YEAR 2015-2016 | BUDGET YEAR 2016-2017 | BUDGET YEAR 2017-2018 |
|-------------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| STORMWATER CHARGES | 7,706,410 | 8,050,000 | 8,050,000 | 8,050,000 | 8,050,000 | 8,050,000 | 8,050,000 | 8,050,000 |
| OTHER INCOME | 28,221 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| INTEREST INCOME | 51,367 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 | 100,000 |
| OPERATING INCOME | 7,785,998 | 8,151,000 | 8,151,000 | 8,151,000 | 8,151,000 | 8,151,000 | 8,151,000 | 8,151,000 |
| OPERATING EXPENDITURES | (3,927,524) | (4,032,284) | (4,256,459) | (4,341,590) | (4,428,416) | (4,516,984) | (4,607,323) | (4,738,323) |
| NET INCOME EXCLUDING DEP. | 3,858,474 | 4,118,716 | 3,894,541 | 3,809,410 | 3,722,584 | 3,634,016 | 3,543,677 | 3,412,677 |
| IMPACT FEES | 235,794 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 |
| OTHER RECEIPTS/ BOND PROCEEDS | 0 | 8,000,000 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTHER CONTRIBUTIONS | 1,579,714 | 516,000 | 516,000 | 516,000 | 516,000 | 516,000 | 516,000 | 516,000 |
| CAPITAL OUTLAY | (47,826) | (863,000) | (546,000) | (363,000) | (565,000) | (161,000) | (11,000) | (440,000) |
| DEBT SERVICE (NEW) | 0 | (800,000) | (600,000) | (600,000) | (600,000) | (600,000) | (600,000) | (600,000) |
| DEBT SERVICE | (587,489) | (600,000) | (600,000) | (600,000) | (600,000) | (600,000) | (600,000) | (600,000) |
| OTHER INCOME & EXPENSE | 1,180,213 | 8,453,000 | (1,030,000) | (837,000) | (1,049,000) | (645,000) | (495,000) | (924,000) |
| AVAILABLE FOR CAPITAL | 6,038,687 | 10,571,716 | 2,864,541 | 2,972,410 | 2,673,584 | 2,989,016 | 3,048,677 | 2,488,677 |
| CAPITAL IMPROVEMENTS | (6,202,961) | (11,423,853) | (7,094,000) | (5,210,000) | (3,310,000) | (1,510,000) | (1,510,000) | (950,000) |
| CASH INCREASE/(DECREASE) | (1,164,274) | (852,237) | (4,229,459) | (2,237,590) | (636,416) | 1,479,016 | 1,538,677 | 1,538,677 |
| BEGINNING CASH BALANCE | 9,632,436 | 8,468,162 | 7,615,925 | 3,386,466 | 1,148,876 | 512,460 | 1,981,476 | 3,530,153 |
| CASH INCREASE/(DECREASE) | (1,164,274) | (852,237) | (4,229,459) | (2,237,590) | (636,416) | 1,479,016 | 1,538,677 | 1,538,677 |
| ENDING BALANCES | 8,468,162 | 7,615,925 | 3,386,466 | 1,148,876 | 512,460 | 1,981,476 | 3,530,153 | 5,068,830 |
| DEBT SERVICE COVERAGE | 6.57 | 6.86 | 3.25 | 3.17 | 3.10 | 3.03 | 2.85 | 284.35% |
| RATE CHANGE | 5.90% | 5.59% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| ANNUAL RESIDENTIAL STORM WATER BILL | \$50.88 | \$53.88 | \$53.88 | \$53.88 | \$53.88 | \$53.88 | \$53.88 | \$53.88 |
| BILL (1991-\$36.00) | 215.61% | 188.87% | 79.56% | 26.46% | 11.57% | 44.09% | 76.62% | 106.96% |
| Cash Reserve Ratio | | | | | | | | |

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2/13/2012

FIGURE III.3 CONTINUED

Department of Public Utilities
STORM DRAIN CAPITAL IMPROVEMENT PROJECTS
SIX YEAR BUDGET PROPOSAL
FOR FISCAL YEAR 2012-13 BUDGET

Last Update
2/13/2012

| COST CENTER | PROJECT NUMBERS | DESCRIPTION | CRITICALITY RATING | CONDITION RATING | FISCAL YR | | | | | | PROJECTS DELAYED | |
|-------------|-----------------|---|--------------------|------------------|-------------|-----------|---------|-----------|-----------|---------|------------------|---------|
| | | | | | 2011 - 2012 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | | |
| 10301 | | ZENITH AVE - 1100 EAST TO RICHMOND STREET JOB NO. 102195 | 5 | 0 | | 10,000 | | | | | | |
| 10301 | | HUDSON CIR - ZENITH AVENUE TO SOUTH CUL-DE-SAC END JOB NO. 102195 | 5 | 0 | | 10,000 | | | | | | |
| 10301 | | SIMPSON AVE - 700 EAST TO 900 EAST JOB NO. 102195 | 5 | 0 | | 10,000 | | | | | | |
| 10301 | | ZENITH AVE - 800 EAST TO 900 EAST JOB NO. 102195 | 5 | 0 | | 10,000 | | | | | | |
| 10301 | | GOSHEN STREET - 700 SOUTH TO INDIANA AVENUE JOB NO. 102195 | 5 | 0 | | 10,000 | | | | | | |
| 10301 | | CONCRETE STREETS REHAB. JOB NO. 102198 | 5 | 0 | | 30,000 | | | | | | |
| 10301 | | KENSINGTON AVENUE (1500 S) - 400 EAST TO 500 EAST JOB NO. 102191 | 5 | 0 | | 25,000 | | | | | | |
| 10301 | | ROOSEVELT AVENUE (1450 S) - 300 EAST TO 400 EAST JOB NO. 102191 | 5 | 0 | | 20,000 | | | | | | |
| 10301 | 53470836 | 500/700 SOUTH REHAB PHASE 5 - 4400 W to 5600 west | 5 | 0 | | 1,000,000 | | | | | | |
| | | CONTINGENCY PROJECTS | | | | 100,000 | | | | | | |
| | | PUBLIC UTILITY DEFINED PROJECTS | | | | | | | | | | |
| 10301 | 53470825 | OIL DRAIN PROJECT (2011 Bond) | 5 | 0 | | 500,000 | | | | | | |
| 10301 | 53470816 | AIRPORT LIGHT RAIL TRANSIT | 5 | 0 | | 20,000 | | | | | | |
| 10301 | 53470838 | 700 SOUTH REHAB PHASE 1 | 5 | 0 | | 75,000 | | | | | | |
| 10301 | 53470771 | 900 SOUTH - 900 EAST TO 1100 EAST | 5 | 0 | | 2,000 | | | | | | |
| 10301 | | 800 EAST STORM DRAIN - 2700 SOUTH TO STRAFFORD AVENUE | 5 | 0 | | 113,000 | | | | | | |
| 10301 | | LITTLE GOGGIN DRAIN BONNEVILLE CENTER C&D | 5 | 0 | | 65,000 | | | | | | |
| 10301 | | MIDDLE BRIGHTON CULVERT REHABILITATION | 5 | 0 | | 150,000 | | | | | | |
| 10301 | 53470806 | 500 SOUTH BRIGHTON CANAL TO GLADIOLA ST. | 5 | 0 | | 400,000 | | | | | | |
| 10301 | | GLADIOLA STORM DRAIN - 500 SOUTH TO RAILROAD CROSSING | 4 | 0 | | 500,000 | | | | | | |
| 10301 | | GLADIOLA STORM DRAIN - RAILROAD CROSSING 900 SOUTH | 4 | 0 | | | 450,000 | | | | | |
| 10301 | | GLADIOLA STORM DRAIN - 900 SOUTH TO 1300 SOUTH | 4 | 0 | | | 100,000 | | | | | |
| 10301 | | DELONG STREET STORM DRAIN | 4 | 0 | | | | 150,000 | | | | 400,000 |
| 10301 | | RICHMOND STREET STORM DRAIN | 2 | 0 | | | | | | | | |
| 10301 | 53470806 | BRIGHTON DRAIN WIDENING FOR SORENSON (Annual payments of \$266,000) | 3 | 0 | | 286,000 | | | | | | |
| 10301 | 534750007 | LEE DRAIN PIPE IMPROVEMENT UNDER BANGSTER | 3 | 0 | | | | 500,000 | | | | |
| 10301 | 53470842 | STORM DRAIN REPAIR AT MAIN STREET AND SOUTH TEMPLE | 3 | 0 | | | | | | | | |
| 10301 | | CLEANOUT BOX REHABILITATION (LDS) | 3 | 4 | | | | 60,000 | | | | 60,000 |
| 10301 | 53470723 | TESSARO (1200 NORTH - 600 WEST TO 650 WEST) | 5 | 4 | | | | 60,000 | | | | 60,000 |
| 10301 | | 2100 EAST STORM DRAIN - WESTMINSTER AVENUE (1630 S) TO 1700 SOUTH | 5 | 4 | | | | 240,000 | | | | |
| 10301 | | 1500/EAST STORM DRAIN - EMIGRATION CREEK (APPROX. 1800 S) TO 1700 SOUTH | 3 | 0 | | | | 320,000 | | | | |
| 10301 | | LEE DRAIN - PIPE OPEN CHANNEL NORTH OF PIONEER ROAD | 4 | 4 | | | | 150,000 | | | | |
| | | | | | | | | 20,000 | | | | |
| | | | | | | 3,863,863 | | 3,969,000 | 1,110,000 | 60,000 | | 460,000 |
| | | | | | | | | | | | | |
| | | RIPIAN CORRIDOR PROJECTS | | | | | | | | | | |
| 10301 | | EMIGRATION CULVERT AT 1500 EAST | | | | | | | | | | |
| 10301 | 53470850 | RED BUTTE CULVERT AT 1300 EAST & 1000 SOUTH - REHAB | 5 | 4 | | | | 250,000 | | | | |
| 10301 | 53470851 | RED BUTTE CULVERT AT SUNNYSIDE AVENUE - REHAB | 5 | 4 | | | | 300,000 | | | | |
| 10301 | 53470558 | EMIGRATION CREEK AT 1300 EAST - CULVERT - REHAB | 5 | 4 | | | | 385,000 | | | | |
| 10301 | | RED BUTTE CULVERT REHAB AT 1500 EAST (CIPP) | 5 | 4 | | | | 200,000 | | | | |
| 10301 | | MILLER PARK | | | | | | 375,000 | | | | |

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2/13/2012

FIGURE III.3 CONTINUED

Department of Public Utilities
STORM DRAIN CAPITAL IMPROVEMENT PROJECTS
 SIX YEAR BUDGET PROPOSAL
 FOR FISCAL YEAR 2012-13 BUDGET

Last Update
2/13/2012

| COST CENTER | PROJECT NUMBERS | DESCRIPTION | CRITICALITY RATING | CONDITION RATING | FISCAL YR | | | | | | PROJECTS DELAYED | |
|-------------|-----------------|---|--------------------|------------------|-------------|------------|-----------|-----------|-----------|-----------|------------------|-----------|
| | | | | | 2011 - 2012 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | | |
| 10301 | | 900 SOUTH & JORDAN AVES. - WATER GRADING BASE | | | | 315,000 | 500,000 | 500,000 | 500,000 | 500,000 | | |
| 10301 | | RCO PROJECTS | | 1 | 0 | 0 | 1,825,000 | 500,000 | 500,000 | 500,000 | 500,000 | 0 |
| 10301 | | LOCAL AREA PROJECTS (WORK BY CITY CREWS) | | | | | | | | | | |
| 10301 | 53470665 | DRAIN BOXES VARIOUS LOCATIONS | | 3 | 0 | 3,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | |
| 10301 | 534740019 | VARIOUS PROJECTS | | | | 203,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 0 |
| 10301 | 534740019 | AVENUE CROSSWALKS | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | ADA RAMPS | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | SID VARIOUS STREETS -- DIP STONE REPLACEMENT | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | CONTRIBUTIONS BY DEVELOPERS | | 3 | 0 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | |
| | | | | | | 650,000 | 650,000 | 650,000 | 650,000 | 650,000 | 650,000 | 0 |
| | | MASTER PLAN PROJECTS | | | | | | | | | | |
| 10301 | 53470784 | NORTH TEMPLE VIADUCT DIVERSION PROJECT | | 5 | 4 | 1,000,000 | | | | | | |
| 10301 | | GATSBY DIVERSION | | 3 | 3 | 5,000,000 | | | | | | 500,000 |
| 10301 | 53470823 | FOLSOM STORM DRAIN (2011 Bond) | | 5 | 1 | | | | | | | 500,000 |
| 10301 | | FOOTHILL DRIVE (2800 E) - EMIGRATION CREEK TO 2300 EAST | | 3 | 3 | | | | | | | 4,200,000 |
| 10301 | | 600 EAST - 900 SOUTH TO THE AVENUES | | 3 | 3 | | | | | | | 400,000 |
| 10301 | | 1700 SOUTH 500 WEST | | 3 | 3 | | | | | | | 5,000,000 |
| | | TOTAL COLLECTION LINES | | | | 10,716,963 | 6,644,000 | 4,560,000 | 2,460,000 | 1,410,000 | 1,410,000 | 6,080,000 |
| | | TOTAL CAPITAL IMPROVEMENTS | | | | 11,423,953 | 7,094,000 | 5,210,000 | 3,310,000 | 1,510,000 | 1,510,000 | 6,080,000 |
| 2750.10 | | Motive Replacement Auto & Truck | | | | | | | | | | |
| 10201 | | 10 WHEEL DUMP TRUCK | | | | 120,000 | | | | | | |
| 10201 | | BOBTAIL DUMP - 2 1/2 TON (REPLACE 36830) | | | | 148,000 | | 90,000 | 120,000 | | | |
| 10201 | | 2 TON DUMP TRUCK | | | | | | 65,000 | | | | |
| 10201 | | 34 PICKUP 4X4 | | | | | | | | | | |
| 10201 | | 1 TON DUMP (REPLACE 36086) | | | | | 40,000 | | | | | |
| 10701 | | 1/2 TON PICKUP EXT CAB WITH SHELL - HYBRID | | | | | 40,000 | | | | | |
| 10701 | | CANYON PU 4X4 EXT CAB | | | | | | | | | | |
| | | | | | | 268,000 | 80,000 | 155,000 | 120,000 | 0 | 0 | 0 |
| 2750.30 | | Field Maint Equipment | | | | | | | | | | |
| 10201 | | BACKHOE - REPLACEMENT PROGRAM | | | | 9,000 | | | 150,000 | | | 0 |
| 10201 | | TRACTOR TRUCK (Replace 36660) | | | | 165,000 | 275,000 | | 285,000 | | | 0 |
| 10201 | | TRACK EXCATOR W/DOZER BLADE | | | | | | | | 150,000 | | |
| 10201 | | BACKHOE 4X4 (REPLACE 3645 - JD710) | | | | 125,000 | | | | | | |

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FIGURE III.3 CONTINUED

Department of Public Utilities
STORM DRAIN CAPITAL IMPROVEMENT PROJECTS
 SIX YEAR BUDGET PROPOSAL
 FOR FISCAL YEAR 2012-13 BUDGET

Last Update
2/13/2012

| COST CENTER | PROJECT NUMBERS | DESCRIPTION | CRITICALITY RATING | CONDITION RATING | FISCAL YR | | | | | | PROJECTS DELAYED | |
|-------------|-----------------|---|--------------------|------------------|-------------|------------|-----------|-----------|-----------|-----------|------------------|-----------|
| | | | | | 2011 - 2012 | 2012-13 | 2013-14 | 2014-15 | 2015-16 | 2016-17 | | |
| 10301 | | 900 SOUTH & JORDAN AVES. - WATER GRADING BASE | | | | 315,000 | | 500,000 | 500,000 | 500,000 | 500,000 | |
| 10301 | | RCO PROJECTS | | 1 | 0 | | | | | | | |
| | | | | | | 0 | 1,825,000 | 500,000 | 500,000 | 500,000 | 500,000 | 0 |
| 10301 | 53470665 | LOCAL AREA PROJECTS (WORK BY CITY CREWS) | | | | | | | | | | |
| 10301 | 534740019 | DRAIN BOXES VARIOUS LOCATIONS | | 3 | 0 | 3,000 | | | | | | |
| 10301 | 534740019 | VARIOUS PROJECTS | | | | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | |
| | | | | | | 203,000 | 200,000 | 200,000 | 200,000 | 200,000 | 200,000 | 0 |
| 10301 | 534740019 | AVENUE CROSSWALKS | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | ADA RAMPS | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | SID VARIOUS STREETS -- DIP STONE REPLACEMENT | | 3 | 0 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | |
| 10301 | 534740019 | CONTRIBUTIONS BY DEVELOPERS | | 3 | 0 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | |
| | | | | | | 650,000 | 650,000 | 650,000 | 650,000 | 650,000 | 650,000 | 0 |
| | | MASTER PLAN PROJECTS | | | | | | | | | | |
| 10301 | 53470784 | NORTH TEMPLE VIADUCT DIVERSION PROJECT | | 5 | 4 | 1,000,000 | | | | | | |
| 10301 | | GATSBY DIVERSION | | 3 | 3 | | | | | | | 500,000 |
| 10301 | 53470823 | FOLSOM STORM DRAIN (2011 Bond) | | 5 | 1 | 5,000,000 | | | | | | 500,000 |
| 10301 | | FOOTHILL DRIVE (2800 E) - EMIGRATION CREEK TO 2300 EAST | | 3 | 3 | | | | | | | 4,200,000 |
| 10301 | | 600 EAST - 900 SOUTH TO THE AVENUES | | 3 | 3 | | | | | | | 400,000 |
| 10301 | | 1700 SOUTH 500 WEST | | 3 | 3 | | | | | | | 500,000 |
| | | TOTAL COLLECTION LINES | | | | 10,716,863 | 6,644,000 | 4,560,000 | 2,460,000 | 1,410,000 | 1,410,000 | 6,060,000 |
| | | TOTAL CAPITAL IMPROVEMENTS | | | | 11,423,353 | 7,094,000 | 5,210,000 | 3,310,000 | 1,510,000 | 1,510,000 | 6,060,000 |
| 2750.10 | | Motive Replacement Auto & Truck | | | | | | | | | | |
| 10201 | | 10 WHEEL DUMP TRUCK | | | | 120,000 | | | | | | |
| 10201 | | BOBTAIL DUMP - 2 1/2 TON (REPLACE 36830) | | | | 148,000 | | 90,000 | 120,000 | | | |
| 10201 | | 2 TON DUMP TRUCK | | | | | | 65,000 | | | | |
| 10201 | | 34 PICKUP 4X4 | | | | | | | | | | |
| 10201 | | 1 TON DUMP (REPLACE 36086) | | | | | 40,000 | | | | | |
| 10701 | | 1/2 TON PICKUP EXT CAB WITH SHELL - HYBRID | | | | | 40,000 | | | | | |
| 10701 | | CANYON PU 4X4 EXT CAB | | | | | | | | | | |
| | | | | | | 268,000 | 80,000 | 155,000 | 120,000 | 0 | 0 | 0 |
| 2750.30 | | Field Maint Equipment | | | | | | | | | | |
| 10201 | | BACKHOE - REPLACEMENT PROGRAM | | | | 9,000 | | | 150,000 | | | 0 |
| 10201 | | TRACTOR TRUCK (Replace 36660) | | | | 165,000 | 275,000 | | 285,000 | | | 0 |
| 10201 | | TRACK EXCATOR W/DOZER BLADE | | | | | | | | 150,000 | | |
| 10201 | | BACKHOE 4X4 (REPLACE 3645 - JD710) | | | | 125,000 | | | | | | |

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2/13/2012

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INTRODUCTION

Salt Lake City is required to monitor the MS4 and obtain data throughout the reporting period. Monitoring data are discussed and presented in two categories:

- Wet Weather Monitoring
- Dry Weather Screening

A. WET WEATHER MONITORING

Wet Weather sampling is done at three locations. Each location represents a specific land use category – Residential, Industrial, and Mixed Use. Sampling is done twice each year. Weather forecasts are monitored on a daily basis to determine when a representative storm event is expected. Approximately 24 hours prior to the prediction of a representative storm, preparations for sampling begin. At this point in the event, the sampling units are programmed to take samples at specified volume intervals, based on predicted rain volume.

Grab samples are taken at each station on the rising limb of the hydrograph and analyzed for pH, Oil and Grease, and Total Cyanide. An automatic sampler continues to sample at each location throughout the storm event. When the runoff ceases, or when flow returns to approximate normal base flow, the sample bottles are collected. This sample is then composited base on flow rate and total volume and taken to a certified laboratory for analysis of the samples collected. The composite sample is analyzed for pH, BOD, Hardness, Nitrogen, Phosphorus, TDS, TSS, and metals. During the storm event, field measurements of pH and temperature are taken at each sampling site. In addition, general observations such as rain gage reading, flow level and rate reading, and status of equipment are recorded by the automatic sampler.

See Appendix II for Storm Event and Sampling Data Results.

B. DRY WEATHER SCREENING

Salt Lake City Dry Weather Screening program, Salt Lake City is required to screen all outfalls at least once during the permit term. Salt Lake City Department of Public Utilities completed monitoring and inspection of all identified outfalls and storm drain system throughout the permit cycle. The Storm Water Utility will perform dry weather screening based on the current MS4 Permit.

Storm Event Description

Rainfall data in Table VI.1 is presented for each sampling event during the 2014 reporting period.

TABLE IV.1 – Sampling Event Rainfall Data

| Date | Sampling Site(s) | Duration storm event (hrs) | Rainfall Amount (inches) |
|---------|------------------|----------------------------|--------------------------|
| 5/14/15 | Forest Dale | Approx 10 Hrs. | .25" |
| 5/14/15 | Gale Street | 5.5 Hrs. | .16" |
| 5/14/15 | Lee Drain | N/A | .07" |
| N/A | Forest Dale | N/A | N/A** |
| N/A | Gale Street | N/A | N/A** |
| N/A | Lee Drain | N/A | N/A** |

Appendix I – 2014 Weather Data, presents the documentation of climatic conditions during each storm event.

* Duration and rainfall amount taken from Gale Street location due to Automatic Sampler Error and proximity to Forest Dale site. ** No Fall 2014 sampling Event no qualifying storm events.

Summary of Wet Weather Monitoring

The outfalls were sampled and results are reported for: storm grab (rising limb), and storm composite samples. Analytical results for constituents are presented in Tables (VI.2 to VI.7).

TABLE IV.2

| Lee Drain Grab Sample Results | | | |
|-------------------------------|-------|---------|--------|
| Parameter | Units | 5/14/15 | N/A ** |
| pH (at time of grab) | pH | 8.3 | N/A ** |
| Oil and Grease | mg/L | ND | N/A ** |
| Cyanide, Total | mg/L | 0.002 | N/A ** |

TABLE IV.3

| Lee Drain Composite Sample Results | | | |
|------------------------------------|--------------|---------------|---------------|
| <i>Parameter (Inorganic)</i> | <i>Units</i> | <i>N/A</i> | <i>N/A **</i> |
| pH | pH | | |
| Biochemical Oxygen Demand (BOD) | mg/L | | |
| Hardness, as CaCO ₃ | mg/L | | |
| Total Kjeldahl Nitrogen | mg/L | | |
| Total Nitrogen | mg/L | | |
| Phosphorus, Dissolved | mg/L | | |
| Phosphorus, Total | mg/L | | |
| Solids, Total Dissolved (TDS) | mg/L | | |
| Solids, Total Suspended (TSS) | mg/L | | |
| <i>Parameters (Metals)</i> | <i>Units</i> | | |
| Cadmium, Total | mg/L | | |
| Copper, Total | mg/L | | |
| Lead, Total | mg/L | | |
| Mercury, Total | mg/L | | |
| Selenium, Total | mg/L | | |
| Zinc, Total | mg/L | | |
| Visual Oil & Grease | Y/N | None observed | |

TABLE IV.4

| Forest Dale Grab Sample Results | | | |
|---------------------------------|--------------|----------------|---------------|
| <i>Parameter</i> | <i>Units</i> | <i>5/14/15</i> | <i>N/A **</i> |
| pH (at time of grab) | pH | 8.0 | <i>N/A **</i> |
| Oil and Grease | mg/L | ND | <i>N/A **</i> |
| Cyanide, Total | mg/L | ND | <i>N/A **</i> |

TABLE IV.5

| Forest Dale Composite Sample Results | | | |
|--------------------------------------|--------------|----------------|---------------|
| <i>Parameter (Inorganic)</i> | <i>Units</i> | <i>5/14/15</i> | <i>N/A **</i> |
| pH | pH | 7.9 | <i>N/A **</i> |
| Biochemical Oxygen Demand (BOD) | mg/L | 16 | <i>N/A **</i> |
| Hardness, as CaCO ₃ | mg/L | 71 | <i>N/A **</i> |
| Total Kjeldahl Nitrogen | mg/L | 3 | <i>N/A **</i> |
| Total Nitrogen | mg/L | 3.0 | <i>N/A **</i> |
| Phosphorus, Dissolved | mg/L | 0.04 | <i>N/A **</i> |

| | | | |
|-------------------------------|--------------|--------|---------------|
| Phosphorus, Total | mg/L | .038 | N/A ** |
| Solids, Total Dissolved (TDS) | mg/L | 84 | N/A ** |
| Solids, Total Suspended (TSS) | mg/L | 184 | N/A ** |
| Parameters (Metals) | Units | | N/A ** |
| Cadmium, Total | mg/L | 0.0002 | N/A ** |
| Copper, Total | mg/L | 0.0271 | N/A ** |
| Lead, Total | mg/L | 0.0123 | N/A ** |
| Mercury, Total | mg/L | N/D | N/A ** |
| Selenium, Total | mg/L | N/D | N/A ** |
| Zinc, Total | mg/L | 0.09 | N/A ** |
| Visual Oil & Grease | Y/N | NO | N/A ** |

TABLE IV.6

| Gale Street Grab Sample Results | | | |
|---------------------------------|--------------|----------------|---------------|
| Parameter | Units | 5/14/15 | N/A ** |
| pH (at time of grab) | pH | 8.0 | N/A ** |
| Oil and Grease | mg/L | ND | N/A ** |
| Cyanide, Total | mg/L | 0.007 | N/A ** |

TABLE IV.7

| Gale Street Composite Sample Results | | | |
|--------------------------------------|--------------|----------------|---------------|
| Parameter (Inorganic) | Units | 5/14/15 | N/A ** |
| pH | pH | 7.6 | N/A ** |
| Biochemical Oxygen Demand (BOD) | mg/L | 17 | N/A ** |
| Hardness, as CaCO3 | mg/L | 188 | N/A ** |
| Total Kjeldahl Nitrogen | mg/L | 2 | N/A ** |
| Total Nitrogen | mg/L | 2.9 | N/A ** |
| Phosphorus, Dissolved | mg/L | 0.05 | N/A ** |
| Phosphorus, Total | mg/L | 0.31 | N/A ** |
| Solids, Total Dissolved (TDS) | mg/L | 300 | N/A ** |
| Solids, Total Suspended (TSS) | mg/L | 38 | N/A ** |
| Parameters (Metals) | Units | | N/A ** |
| Cadmium, Total | mg/L | 0.0002 | N/A ** |
| Copper, Total | mg/L | 0.0130 | N/A ** |
| Lead, Total | mg/L | 0.0047 | N/A ** |
| Mercury, Total | mg/L | ND | N/A ** |
| Selenium, Total | mg/L | 0.0013 | N/A ** |

| | | | |
|---------------------|------|---------------|---------------|
| Zinc, Total | mg/L | 0.05 | <i>N/A **</i> |
| Visual Oil & Grease | Y/N | None observed | <i>N/A **</i> |

Storm Grab Summary:

Grab samples were taken during 2015 for the spring rain event at all three sites and were taken on the rising limb of the hydrograph. All samples are collected and taken to CHEMTECH-FORD laboratories for analysis at the earliest time possible.

** Fall 2015 sampling will be reported during the next annual report.

Composite Sample Summary:

Composite samples were taken in the Spring of 2015 at the Forest Dale and Gale Street location, the Lee Drain Sampling Location Storm event didn't qualify for as a representative sample and didn't trigger to start the automatic sampler, the automatic sampler at the Gale Street site picked up the sample and SLC ran all the samples and reported even though the storm event didn't meet the criteria for a "representative sample. Salt Lake City continued to monitor the weather reports through the spring in an attempt to collect a sample from the Lee Drain and Gale Street location see weather data attached in this appendix I

See attached weather data in Appendix I

Event Mean Concentrations

Annual Event Mean Concentrations (EMCs) for constituents are calculated for each constituent for each outfall. To calculate an EMC, the calculated loading per event for each of the sampled storms is summed and divided by the total volume for the sampled events and converted to milligrams per liter.

Annual Event Mean Concentrations (EMCs) were calculated for each outfall, representing an EMC for specific land uses. This analysis provides information regarding the effect of land use within a basin on stormwater quality. Table AII.2 shows the annual EMC's for each land use and Citywide.

INTRODUCTION

In accordance with the Permit requirements, the following data indicate Budget and Annual Expenditures for fiscal year 2014-15. Salt Lake City fiscal calendar is from July 1 to June 30. All expenditures and budgets are based on fiscal reporting. The capital necessary to accomplish the storm water management program will continue to be funded through the stormwater utility fees collected from the users.

A. BUDGET AND ANNUAL EXPENDITURES

The budget and annual expenditures for the 2014/15 (actual) and 2015/16 (projected) for the Storm Water Utility are presented in Table V.1.

B. STORM WATER QUALITY IMPLEMENTATIONS COSTS

The annual operation expense associated with the storm water management program is presented in Table VII.2. The annual expenses shown are those for the Storm water utility, and are storm water quality implementation costs. Other portions of the program such as Neighborhood Cleanup programs are funded under the general fund.

TABLE V.1

| BUDGET AND ANNUAL EXPENDITURES | | |
|--|-------------------------|----------------------------|
| <i>Budget Year (June 30 to July 1)</i> | <i>2014/15 (actual)</i> | <i>2015/16 (projected)</i> |
| STORM WATER CHARGES | \$ 8,265,477 | \$ 8,050,000 |
| OTHER INCOME | \$ 21,168 | \$ 1,000 |
| INTEREST INCOME | \$ 36,068 | \$ 100,000 |
| OPERATING INCOME | \$ 8,322,713 | \$ 8,151,000 |
| OPERATING EXPENDITURES | \$ (4,436,032) | \$ (5,488,398) |
| NET INCOME EXCLUDING DEPRECIATION | \$ 3,886,681 | \$ 2,662,602 |
| OTHER PAYMENTS/BOND PROCEEDS | \$ 0 | \$ 0 |
| OTHER CONTRIBUTIONS | \$ 393,891 | \$ 716,000 |
| CAPITAL OUTLAY | \$ (189,684) | \$ (34,500) |
| DEBT SERVICE | \$ (1,018,621) | \$ (1,020,000) |
| DEBT SERVICE NEW | \$ 0 | \$ 0 |
| OTHER INCOME & EXPENSE | \$ (115,906) | \$ (0) |
| AVAILABLE FOR CAPITAL | \$ 3,188,173 | \$ 2,324,102 |
| CAPITAL IMPROVEMENTS | \$ (2,755,582) | \$ (5,527,500) |
| BEGINNING CASH BALANCE | \$ 7,184,400 | \$ 7,616,991 |
| CASH INCREASE/(DECREASE) | \$ (432,591) | \$ (3,203,398) |
| ENDING BALANCES | \$ 7,616,991 | \$ 4,413,593 |

TABLE V.2

| ESTIMATED ANNUAL STORM WATER QUALITY IMPLEMENTATION COSTS | | | | | |
|--|--|--|--|--|--|
| <i>Program Item</i> | <i>2010-11 Annual Estimated Costs</i> | <i>2011-12 Annual Estimated Costs</i> | <i>2012-13 Annual Estimated Costs</i> | <i>2013-14 Annual Estimated Costs</i> | <i>2014-15 Annual Estimated Costs</i> |
| Personnel 3 Full Time Equivalent | \$188,844 | \$221,594 | \$280,605 | 298,823 | 347,241 |
| Vactor Truck Maintenance ** | \$85,000 | \$112,787 | \$119,950 | 88,714 | 95,647 |
| Street Sweeping and TAN CAN Program (2009)*** | \$640,000 | \$620,405 | \$821,508 | \$821,508 | \$821,508 |
| Public Education | \$13,000 | \$13,000 | \$13,000 | \$13,000 | \$13,000 |
| Wet Weather Testing | \$3,000 | \$3,000 | \$3,000 | \$3,000 | \$3,000 |
| Other Sampling | \$1,000 | \$1,000 | \$1,000 | 1,000 | 1,000 |
| Total Estimated Annual Cost For Storm Water Quality | <u>\$739,076</u> | <u>\$930,000</u> | <u>\$971,786</u> | <u>\$1,239,063</u> | <u>\$1,281,396</u> |

** 2010 Lower Vactor truck maintenance expenses due to depreciation methods.

INTRODUCTION

The purpose of this chapter is to present a program summary describing the number and nature of enforcement actions, inspections, and public education programs.

A. ENFORCEMENT ACTIONS

From January 1, through June 30, 2015 Salt Lake City Storm Water Division personnel responded to and investigated 24 violations issuing several Warning and or Notice of Violations including cost recovery. These investigations were initiated for various reasons including:

- Salt Lake City Storm Drainage personnel observing unusual characteristics in the flow of a storm drainage conveyance. These observations have included discharges with sanitary sewer characteristics, oil sheen, suds from surfactants, and unusual odors or color. When such observations occur storm drainage personnel work together as a team to trace the storm drain system to the source. Additionally, illicit discharges and connections into the system observed by drainage personnel have been investigated and resulted in enforcement activity.
- Salt Lake City Pre-Treatment personnel work closely with the Storm Water personnel to resolve illicit connections and discharges from either system. Enforcement actions have resulted from the two programs working together in the past.
- Salt Lake City personnel working in various capacities such as administrators, inspectors, and other field personnel have reported illicit discharges that have resulted in enforcement actions.
- State of Utah, Division of Water Quality, and Salt Lake Valley Health Department have reported illicit discharges. In these cases the State of Utah and/or Health Departments have requested Salt Lake City Public Utilities assistance in the investigations and enforcement actions.
- Citizen complaints regarding illicit discharges are another source of information.
- Business complaints regarding illicit discharges are another source of information.

- Industries have reported spills or leaks at their facility that have required enforcement.

B. INSPECTIONS

Industrial Inspections

Salt Lake City actively works in partnership with the regulated industrial and the business community to provide consistent guidance and direction. Inspections of the businesses that are required to obtain a State Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP) are key elements of Salt Lake City’s storm water program.

Industries that do not have UPDES Storm Water Permits or a SWPPP prepared and implemented are assisted in the process of obtaining a Permit, preparing and implementing a SWPPP, and given additional information as required. Once these industries obtain the Permit and SWPPP they are scheduled for inspections throughout their permit cycle. Industries that are reported with an illicit discharge or illicit connection are also inspected. These inspections may result in enforcement actions.

Construction Inspections

Construction sites greater than or equal to one acre or less than one acre that are part of a common plan of development are required to be permitted by the State of Utah and Salt Lake City Public Utilities. A copy of the SWPPP is reviewed for all new permits. These construction sites are inspected during various phases of the project until final stabilization.

Summary of Inspections

Salt Lake City conducted 272 inspections were conducted from January 1, through June 30, 2015. These totals include industrial inspections, construction inspections, and incident responses. A complete listing of inspections is included Appendix IV.

C. PUBLIC EDUCATION PROGRAMS

Salt Lake City, in conjunction with Salt Lake County, conducted a public opinion survey in 2010. The results of the surveys shaped the public involvement and education plan of

the Salt Lake City Storm Water Management Program. Salt Lake City participated in a number of public education programs throughout 2015. The public education plan is designed to stimulate the public to alter its lifestyle and to make the financial commitment necessary to preserve water quality. Education is recognized as an effective management tool, a non-structural source of control that fosters recognition on the part of resident habits that result in degradation of water runoff quality.

Salt Lake City

In 2011, Salt Lake City purchased an EnviroScape® watershed model to use in presentations at the City public and private schools upon request. This model represents a watershed where students reenact various scenarios to demonstrate non-point source pollution and its effects on our lakes and rivers. The city also participates in the annual Water Quality Fair at Hogle Zoo reaching more than 1200 students. In addition More than 48,000 utility customers received flyers in their billing statement, providing storm water education and guidance.

Stormwater Coalition

The public education and information program is primarily completed as part of the Storm Water Coalition. The budget for Salt Lake City was \$13,000. The budget is used for a General Media Campaign, Movie Theatre Advertisement, Television Commercial, Storm Water Posters, Activity Books, Pencils, Magnets, and Notepads.

Activities conducted as part of the public involvement and education plan include: media campaigns, information booth, BMP Guidance Document, Newspaper Inserts, Decals, Target Group Presentations, and Waterway Clean-ups.

A summary of the coalition educational program activities is included in Appendix III.

INTRODUCTION

Salt Lake City is required by the UPDES Permit to identify long-term water quality improvements or degradation trends. Salt Lake City has collected data from storm events on a routine basis since the issuance of the permit. The intent of the monitoring is to determine any trends in stormwater quality to assist with the implementation of BMPs.

In accordance with the permit, Salt Lake City is required to prepare a summary of five years of wet weather monitoring during the final year of the permit. Tables and five year analysis is for the previous permit. Salt Lake City will be contracting Stantec consulting for the duration of the current permit to include the with the SLCo monitoring data for a broader view of the trends in Salt Lake County.

SAMPLING LOCATIONS

Three sampling locations representing various land uses have been established to conduct the wet weather monitoring (See Figures IX.1-IX.3):

- JOR 8.32 Located at 900 South Gale Street represents mixed land use (commercial, residential and light industrial).
- MIL 2.60 Located at the Forest Dale golf course represents residential land use.
- LED 1.87 Located at 5500 West on the Lee Drain represents industrial land use.

Sampling at the above locations is conducted twice a year, during the spring and fall. Sampling includes grab samples taken on the rising limb of a representative storm, and a flow-weighted composite sample collected throughout the duration of the storm. The majority of sampling events in the past 5 years have occurred in May and October. Not all locations have been sampled each year due to either a lack in precipitation or sampling equipment malfunctions. Appendix II provides additional sampling information.

EVENT MEAN CONCENTRATIONS (EMC's)

Automated samplers are used to collect twelve individual samples throughout the storm event. The samples are then combined based on flow into one composite sample. The composite sample concentration is a volume-weighted average of all the individual samples that were taken. Therefore, the EMC for flow-weighted composite samples is simply the concentration of the composite sample.

RESULTS

Analyses were conducted on pollutant concentrations of the composite results during a storm event. An analysis of the average pollutant concentrations (2011 – 2015) for each outfall was conducted in order to evaluate differences due to land use. The results are provided in Table VII.1 and Figure VII.2 - VII.7

TABLE VII.1

| Station | Land use | 2011 -2015 Cumulative 5-year Average Concentration (mg/L) | | | | | |
|----------|-------------|---|-------------------|------------------|--------------|------------|------------|
| | | TSS | Total Phosphorous | BOD ₅ | Total Copper | Total Lead | Total Zinc |
| JOR 8.32 | Mixed | 158.7 | 0.49 | 26.2 | 0.03 | 0.022 | 0.110 |
| MIL 2.60 | Residential | 145.4 | 0.28 | 15.3 | 0.02 | 0.010 | 0.100 |
| LED 1.87 | Industrial | 101.6 | 0.26 | 6.3 | 0.01 | 0.004 | 0.040 |

FIGURE VII.2

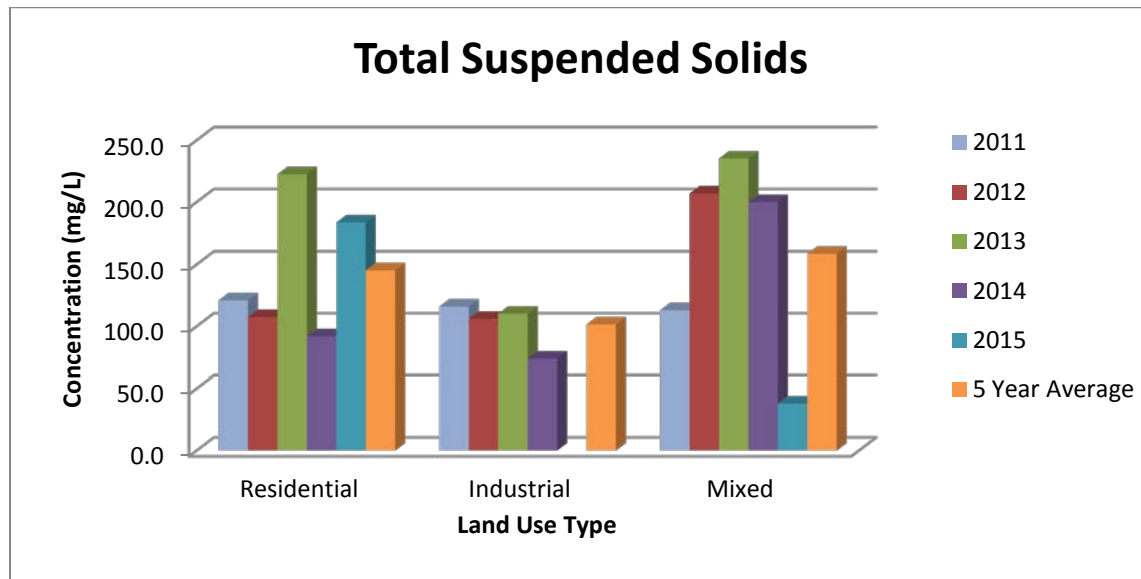


FIGURE VII.3

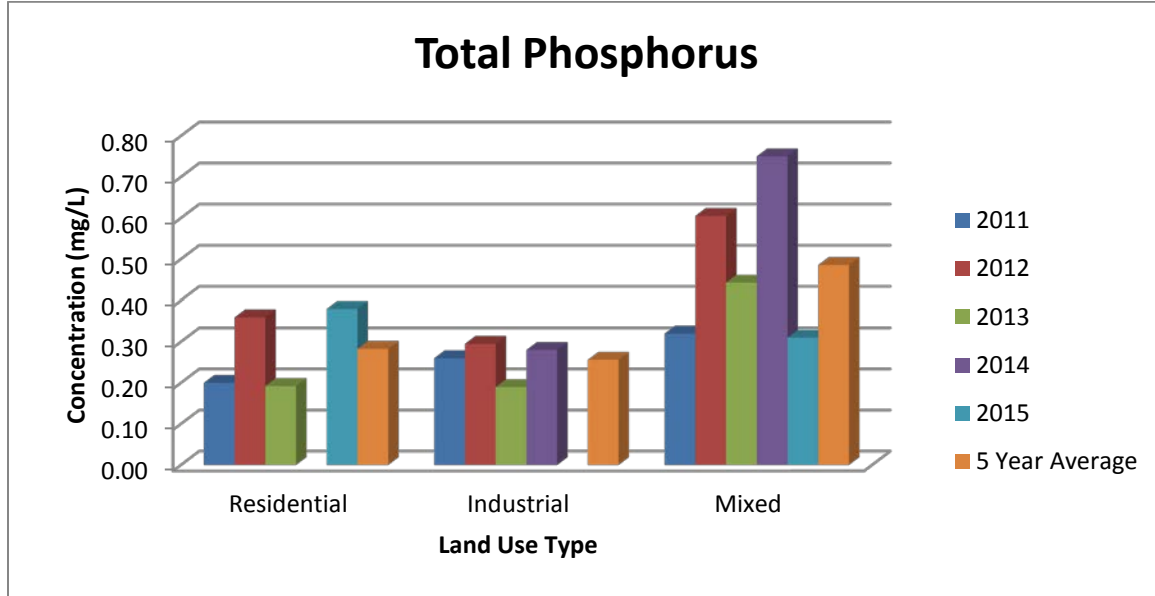


FIGURE VII.4

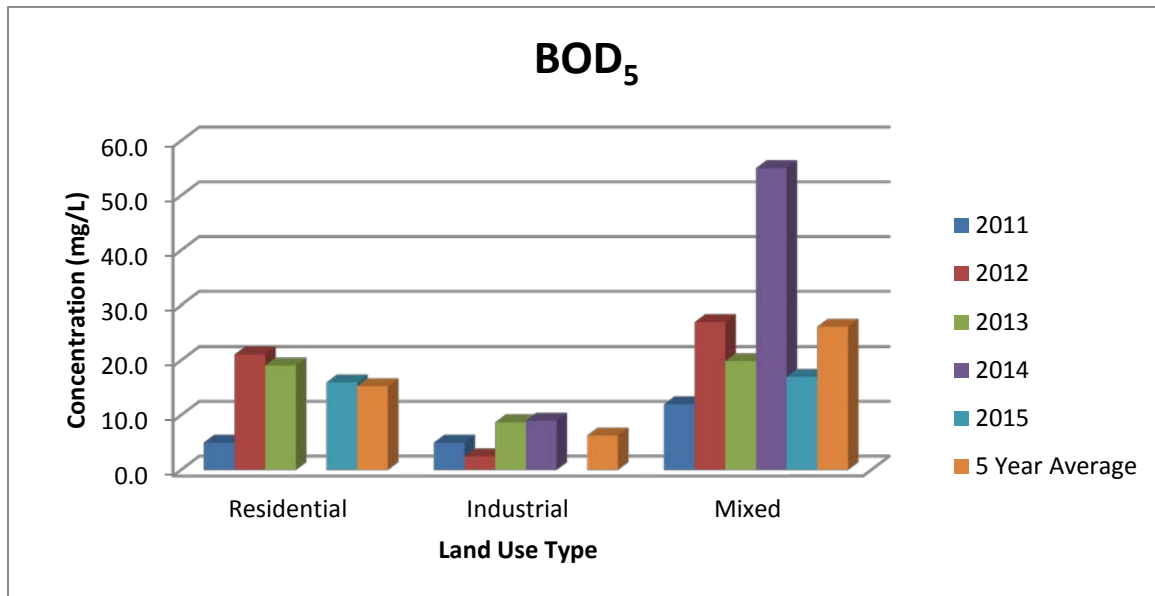


FIGURE VII.5

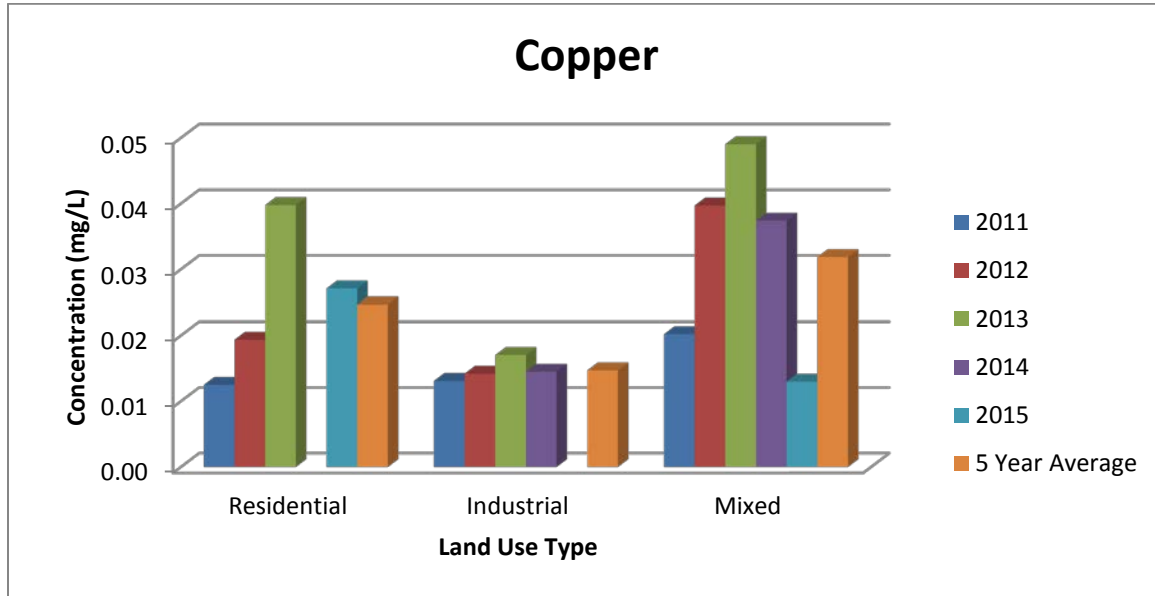


FIGURE VII.6

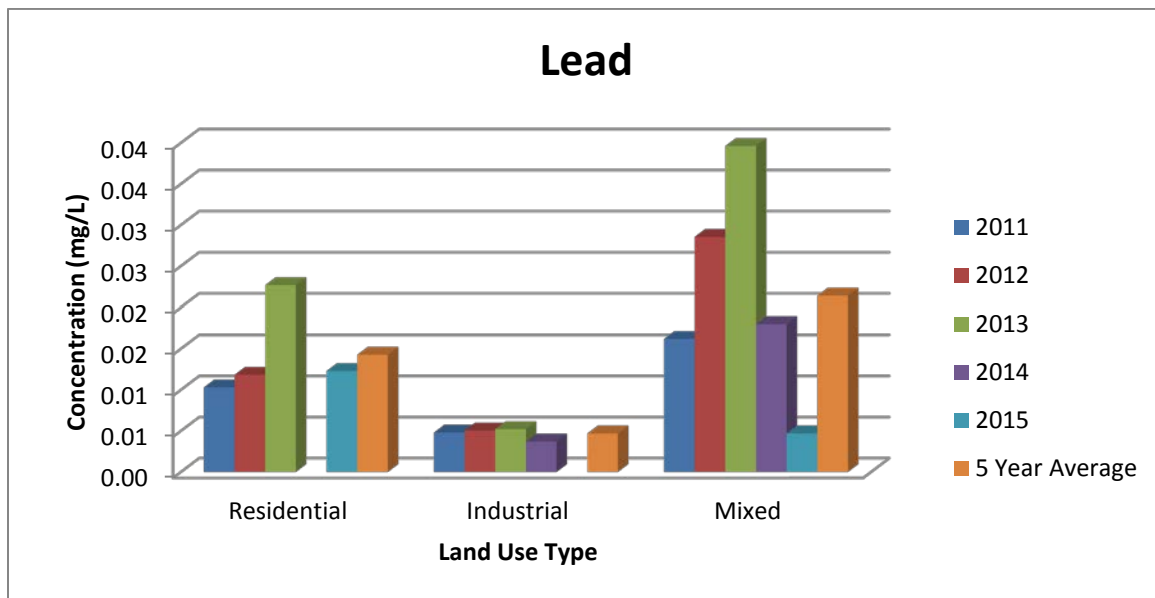
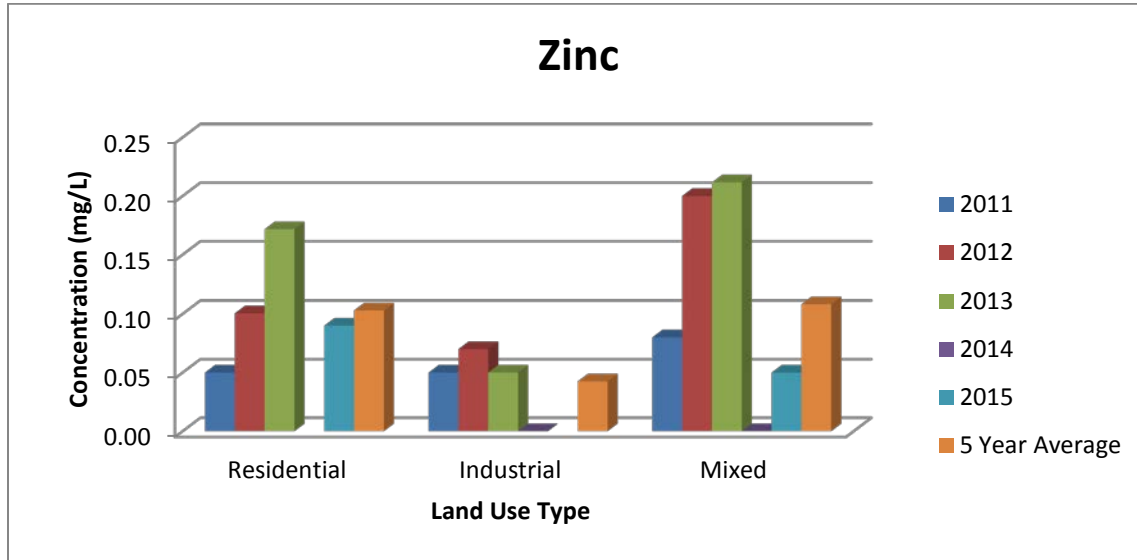


FIGURE VII.7




Cumulative 5- year average concentration trends based on Land use

- The mixed land use had the highest runoff concentrations of Total Suspended Solids, BOD₅, Total Lead, Total Zinc, Total Copper and Total Phosphorus.
- Industrial land use had the lowest concentration of all 5 constituents.

It appears that the mixed land use and the residential land use had increases in annual concentrations of Total suspended solids. It should also be noted that this land use area has little treatment of stormwater potentially leading to the high concentrations of all constituents. This is the area of focus for a new stormwater treatment facility. The industrial land use is highly impervious but most conveyances are grassy swales which allow for infiltration and treatment of stormwater. The industrial land use is also newer development with increased storm water quality requirements.

SALT LAKE CITY REPORT CERTIFICATION

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person, or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”


































Jeffrey T. Niermeyer
Director, Salt Lake City Public Utilities

Appendix I - 2015 Weather Data for Wet Weather Sampling Storm Events

Weather History for KSLC - March, 2015

 Today  Forecast

March Precip Stats: Actual Month Total: 0.51 in | Average Month Total: 1.79 in

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--|--|--|--|--|--|--|
| 1  Actual: 48° 32° 0.00 in Average: 49° 30° 0.05 in | 2  Actual: 42° 32° T in Average: 49° 30° 0.05 in | 3  Actual: 38° 29° 2.5 in Average: 50° 30° 0.05 in | 4  Actual: 40° 25° 0.00 in Average: 50° 31° 0.05 in | 5  Actual: 50° 27° 0.00 in Average: 50° 31° 0.06 in | 6  Actual: 55° 30° 0.00 in Average: 51° 31° 0.05 in | 7  Actual: 59° 31° 0.00 in Average: 51° 32° 0.05 in |
| 8  Actual: 58° 32° 0.00 in Average: 52° 32° 0.05 in | 9  Actual: 59° 32° 0.00 in Average: 52° 32° 0.05 in | 10  Actual: 65° 35° 0.00 in Average: 52° 32° 0.06 in | 11  Actual: 65° 42° T in Average: 53° 33° 0.05 in | 12  Actual: 58° 42° 0.05 in Average: 53° 33° 0.05 in | 13  Actual: 64° 37° 0.00 in Average: 53° 33° 0.06 in | 14  Actual: 69° 42° 0.00 in Average: 53° 34° 0.05 in |
| 15  Actual: 73° 50° 0.00 in Average: 54° 34° 0.06 in | 16  Actual: 74° 52° 0.00 in Average: 54° 34° 0.06 in | 17  Actual: 74° 47° 0.00 in Average: 54° 34° 0.06 in | 18  Actual: 62° 44° 0.00 in Average: 55° 34° 0.06 in | 19  Actual: 60° 34° 0.00 in Average: 55° 35° 0.06 in | 20  Actual: 68° 38° 0.00 in Average: 55° 35° 0.06 in | 21  Actual: 71° 42° 0.00 in Average: 55° 35° 0.06 in |
| 22  Actual: 66° 41° 0.00 in Average: 56° 35° 0.06 in | 23  Actual: 58° 45° T in Average: 56° 35° 0.07 in | 24  Actual: 57° 36° 0.00 in Average: 56° 35° 0.06 in | 25  Actual: 51° 33° 0.00 in Average: 56° 36° 0.07 in | 26  Actual: 61° 35° 0.00 in Average: 57° 36° 0.06 in | 27  Actual: 72° 39° 0.00 in Average: 57° 36° 0.06 in | 28  Actual: 74° 49° 0.00 in Average: 57° 36° 0.07 in |
| 29  Actual: 66° 39° 0.00 in Average: 57° 36° 0.06 in | 30  Actual: 74° 40° 0.00 in Average: 57° 36° 0.06 in | 31  Actual: 78° 48° 0.00 in Average: 58° 37° 0.07 in | | | | |

Calendar Legend

| | | | | | |
|---|---|---|--|---|---|
|  Sunny Clear |  Mostly Cloudy |  Partly Cloudy |  Cloudy |  Rain |  Snow |
|  Hail Flurries |  Thunderstorms |  Hazy Fog |  Sleet |  '?' denotes 'chance of' |  Unknown |

Appendix I – WEATHER DATA | 2015

Weather History for KSLC - April, 2015

□ Today □ Forecast

April Precip Stats: Actual Month Total: 1.10 in | Average Month Total: 1.99 in

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--|--|--|--|--|--|--|
| | | | 1 Actual: 54° 37° 0.00 in Average: 58° 37° 0.06 in | 2 Actual: 50° 37° 0.00 in Average: 58° 37° 0.07 in | 3 Actual: 56° 31° 0.00 in Average: 58° 37° 0.06 in | 4 Actual: 68° 39° 0.00 in Average: 58° 37° 0.06 in |
| 5 Actual: 70° 49° 0.00 in Average: 59° 37° 0.07 in | 6 Actual: 57° 42° 0.00 in Average: 59° 37° 0.07 in | 7 Actual: 64° 39° 0.00 in Average: 59° 38° 0.07 in | 8 Actual: 55° 37° T in Average: 59° 38° 0.06 in | 9 Actual: 58° 39° T in Average: 60° 38° 0.07 in | 10 Actual: 66° 39° 0.00 in Average: 60° 38° 0.07 in | 11 Actual: 70° 45° 0.00 in Average: 60° 38° 0.07 in |
| 12 Actual: 57° 42° T in Average: 60° 39° 0.06 in | 13 Actual: 74° 39° 0.00 in Average: 61° 39° 0.07 in | 14 Actual: 76° 35° MM in Average: 61° 39° 0.06 in | 15 Actual: 37° 29° MM in Average: 61° 39° 0.07 in | 16 Actual: 55° 32° T in Average: 62° 39° 0.06 in | 17 Actual: 62° 38° 0.00 in Average: 62° 40° 0.07 in | 18 Actual: 67° 41° 0.00 in Average: 62° 40° 0.06 in |
| 19 Actual: 68° 43° 0.00 in Average: 62° 40° 0.07 in | 20 Actual: 69° 43° 0.00 in Average: 63° 40° 0.06 in | 21 Actual: 75° 45° 0.00 in Average: 63° 41° 0.07 in | 22 Actual: 74° 48° 0.00 in Average: 63° 41° 0.07 in | 23 Actual: 69° 52° T in Average: 64° 41° 0.06 in | 24 Actual: 68° 49° 0.02 in Average: 64° 41° 0.06 in | 25 Actual: 59° 42° 0.12 in Average: 64° 42° 0.07 in |
| 26 Actual: 52° 39° 0.42 in Average: 65° 42° 0.07 in | 27 Actual: 60° 39° 0.00 in Average: 65° 42° 0.07 in | 28 Actual: 71° 43° 0.00 in Average: 66° 43° 0.07 in | 29 Actual: 80° 49° 0.00 in Average: 66° 43° 0.07 in | 30 Actual: 71° 55° 0.00 in Average: 66° 43° 0.07 in | | |

Calendar Legend

- | | | | | | |
|---------------|---------------|---------------|--------|-------------------------|---------|
| Sunny Clear | Mostly Cloudy | Partly Cloudy | Cloudy | Rain | Snow |
| Hail Flurries | Thunderstorms | Hazy Fog | Sleet | '?' denotes 'chance of' | Unknown |

Appendix I – WEATHER DATA | 2015

Weather History for KSLC - May, 2015

□ Today □ Forecast

May Precip Stats: Actual Month Total: 2.64 in | Average Month Total: 1.95 in

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|--|--|--|--|--|--|--|
| | | | | | 1 Actual: 75° 50° 0.00 in Average: 67° 44° 0.07 in | 2 Actual: 82° 59° 0.00 in Average: 67° 44° 0.08 in |
| 3 Actual: 79° 57° T in Average: 67° 44° 0.07 in | 4 Actual: 76° 57° T in Average: 68° 44° 0.06 in | 5 Actual: 69° 55° 0.01 in Average: 68° 45° 0.07 in | 6 Actual: 65° 53° 0.02 in Average: 68° 45° 0.07 in | 7 Actual: 67° 48° 0.04 in Average: 69° 45° 0.07 in | 8 Actual: 65° 48° 0.02 in Average: 69° 46° 0.07 in | 9 Actual: 51° 47° 0.86 in Average: 70° 46° 0.07 in |
| 10 Actual: 61° 44° 0.00 in Average: 70° 46° 0.06 in | 11 Actual: 73° 44° 0.00 in Average: 70° 47° 0.07 in | 12 Actual: 78° 58° 0.00 in Average: 71° 47° 0.06 in | 13 Actual: 76° 54° 0.00 in Average: 71° 47° 0.07 in | 14 Actual: 72° 58° 0.01 in Average: 71° 47° 0.06 in | 15 Actual: 58° 48° 0.01 in Average: 72° 48° 0.07 in | 16 Actual: 52° 44° 0.20 in Average: 72° 48° 0.06 in |
| 17 Actual: 63° 48° 0.53 in Average: 72° 48° 0.06 in | 18 Actual: 67° 49° 0.25 in Average: 73° 48° 0.06 in | 19 Actual: 61° 49° 0.23 in Average: 73° 49° 0.06 in | 20 Actual: 68° 50° T in Average: 73° 49° 0.07 in | 21 Actual: 68° 48° T in Average: 74° 49° 0.06 in | 22 Actual: 64° 51° T in Average: 74° 50° 0.06 in | 23 Actual: 60° 49° 0.19 in Average: 74° 50° 0.06 in |
| 24 Actual: 66° 47° 0.04 in Average: 75° 50° 0.06 in | 25 Actual: 71° 52° 0.01 in Average: 75° 50° 0.05 in | 26 Actual: 61° 56° 0.11 in Average: 75° 51° 0.06 in | 27 Actual: 71° 51° 0.01 in Average: 76° 51° 0.05 in | 28 Actual: 71° 51° 0.10 in Average: 76° 51° 0.06 in | 29 Actual: 76° 51° 0.00 in Average: 76° 51° 0.05 in | 30 Actual: 85° 56° 0.00 in Average: 77° 52° 0.06 in |
| 31 Actual: 91° 61° 0.00 in Average: 77° 52° 0.05 in | | | | | | |

Calendar Legend

| | | | | | |
|---------------|---------------|---------------|--------|-------------------------|---------|
| Sunny Clear | Mostly Cloudy | Partly Cloudy | Cloudy | Rain | Snow |
| Hail Flurries | Thunderstorms | Hazy Fog | Sleet | '?' denotes 'chance of' | Unknown |

Appendix II - 2015 Monitoring Data
2015 Spring Grab Samples



5/29/2015

Work Order: 1505139

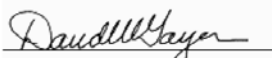
Salt Lake City Public Utilities
Attn: Greg Archuleta
1530 South West Temple
Salt Lake City, UT 84115

Client Service Contact: 801.262.7299

The analyses presented on this report were performed in accordance with the National Environmental Laboratory Accreditation Program (NELAP) unless noted in the comments, flags or case narrative. If the report is to be used for regulatory compliance, it should be presented in its entirety, and not be altered.



Approved By:


Dave Gayer, Laboratory Director

9632 South 500 West

Sandy, Utah 84070

801.262.7299 Main

866.792.0093 Fax

www.chemtechford.com

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CHEMTECH-FORD
LABORATORIES

Certificate of Analysis

Lab Sample No.: 1505139-01

| | |
|--|--|
| Name: Salt Lake City Public Utilities | Sample Date: 5/14/2015 9:30 PM |
| Sample Site: Gale | Receipt Date: 5/15/2015 3:51 PM |
| Comments: | Sampler: Dustin White |
| Sample Matrix: Water | Project: Storm water grab |
| PO Number: 51-1-11-5161 | |

| Parameter | Sample Result | Minimum Reporting Limit | Units | Analytical Method | Preparation Date/Time | Analysis Date/Time | Flag |
|------------------------------|---------------|-------------------------|----------|-------------------|-----------------------|--------------------|------|
| Inorganic | | | | | | | |
| Cyanide, Total | 0.007 | 0.002 | mg/L | SM 4500 CN-E | 05/18/2015 11:00 | 5/19/2015 10:00 | |
| Dissolved Organic Carbon | 9.0 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Oil & Grease (HEM) | ND | 6 | mg/L | EPA 1664A | 05/19/2015 08:43 | 5/20/2015 9:30 | |
| pH | 8.0 | 0.1 | pH Units | SM 4500 H-B | 05/15/2015 16:00 | 5/15/2015 16:00 | |
| Total Organic Carbon | 14.3 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Total Suspended Solids (TSS) | 38 | 20 | mg/L | SM 2540 D | 05/19/2015 13:00 | 5/19/2015 13:00 | |



Certificate of Analysis

Lab Sample No.: 1505139-02

| | |
|--|--|
| Name: Salt Lake City Public Utilities | Sample Date: 5/14/2015 10:03 PM |
| Sample Site: Forest Dale (FD) | Receipt Date: 5/15/2015 3:51 PM |
| Comments: | Sampler: Dustin White |
| Sample Matrix: Water | Project: Storm water grab |
| PO Number: 51-1-11-5161 | |

| Parameter | Sample Result | Minimum Reporting Limit | Units | Analytical Method | Preparation Date/Time | Analysis Date/Time | Flag |
|------------------------------|---------------|-------------------------|----------|-------------------|-----------------------|--------------------|------|
| Inorganic | | | | | | | |
| Cyanide, Total | ND | 0.002 | mg/L | SM 4500 CN-E | 05/18/2015 11:00 | 5/19/2015 10:00 | |
| Dissolved Organic Carbon | 11.1 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Oil & Grease (HEM) | ND | 5 | mg/L | EPA 1664A | 05/19/2015 08:43 | 5/20/2015 9:30 | |
| pH | 8.0 | 0.1 | pH Units | SM 4500 H-B | 05/15/2015 16:00 | 5/15/2015 16:00 | |
| Total Organic Carbon | 12.8 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Total Suspended Solids (TSS) | 58 | 20 | mg/L | SM 2540 D | 05/19/2015 13:00 | 5/19/2015 13:00 | |

4 of 7



Certificate of Analysis

Lab Sample No.: 1505139-03

| | |
|--|--|
| Name: Salt Lake City Public Utilities | Sample Date: 5/14/2015 10:33 PM |
| Sample Site: Lee Drain | Receipt Date: 5/15/2015 3:51 PM |
| Comments: | Sampler: Dustin White |
| Sample Matrix: Water | Project: Storm water grab |
| PO Number: 51-1-11-5161 | |

| Parameter | Sample Result | Minimum Reporting Limit | Units | Analytical Method | Preparation Date/Time | Analysis Date/Time | Flag |
|------------------------------|---------------|-------------------------|----------|-------------------|-----------------------|--------------------|------|
| Inorganic | | | | | | | |
| Cyanide, Total | 0.002 | 0.002 | mg/L | SM 4500 CN-E | 05/21/2015 12:00 | 5/22/2015 9:06 | |
| Dissolved Organic Carbon | 8.6 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Oil & Grease (HEM) | ND | 5 | mg/L | EPA 1664A | 05/19/2015 08:43 | 5/20/2015 9:30 | |
| pH | 8.3 | 0.1 | pH Units | SM 4500 H-B | 05/15/2015 16:00 | 5/15/2015 16:00 | |
| Total Organic Carbon | 15.9 | 0.5 | mg/L | SM 5310 C | 05/18/2015 09:30 | 5/18/2015 9:30 | |
| Total Suspended Solids (TSS) | 114 | 20 | mg/L | SM 2540 D | 05/19/2015 13:00 | 5/19/2015 13:00 | |

CHAIN OF CUSTODY

CHEMTECH - FORD ANALYTICAL LABORATORY

BILLING ADDRESS: Same
BILLING CITY/STATE/ZIP:
PURCHASE ORDER #:

COMPANY: Salt Lake City Public Utilities
ADDRESS: 1530 S. West Temple
CITY/STATE/ZIP: Salt Lake City, UT 84115
PHONE #: (801) 483-6821
CONTACT: Greg Archuleta
EMAIL: greg.archuleta@slc.gov.com
PROJECT: Storm Water Grab
turnaroundrequired.com

TURNAROUND REQUIRED: *
* Expedited turnaround subject to additional charge

Mark 'X' here if you want a copy sent to DEQ Division of Drinking Water.

Main monitoring data table with columns for Lab ID #, Sample Date, Sample Time, Sample Location, Matrix, Analytical Tests Requested, Bacteriological tests, and System #.

4.7

ON ICE

NOT ON ICE

Special Instructions:

Signature and date table for Relinquished By, Received by, and Date/Time.

CHEMTECH-FORD 6100 South Straiter Street (300 West) Murray, UT 84107 Phone: 801-262-7299 FAX: 801-262-7378 www.chemtechford.com
Payment Terms are net 30 days OAC. 1.5% interest charge per month (18% per annum). Client agrees to pay collection costs and attorney's fees.



CHEMTECH FORD LABORATORIES
Sample Receipt

Work Order # DS139

Delivery Method:

- UPS
- FedEx
- Walk-in
- USPS
- Chemtech Courier
- Customer Courier

| Sample # | Container | Chemtech Lot # or Preservative | Number of Subsamples | Preserved by Client/Third Party | Preserved in Receiving/Laboratory | Filtered in Field by Client | Misc Volume (oz/ml) | Comments | Receiving Temperature <u>6.7</u> °C | |
|----------|-----------|--------------------------------------|----------------------|---------------------------------|-----------------------------------|-----------------------------|---------------------------|----------|-------------------------------------|--|
| | | | | | | | | | | |
| 01-03 | C | A59,962,252 | | | | | | | | |
| | AD | | | | | | | | | |
| | 0 | 312,340,242 | | | | | | | | |
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| | T(1-2) | 890,135 GAP | | | | | | | | |
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| Sample Condition (check if yes) |
|--|
| <input type="checkbox"/> Custody Seals |
| <input checked="" type="checkbox"/> Containers Intact |
| <input type="checkbox"/> COC/Labels Agree |
| <input type="checkbox"/> Preservation Confirmed |
| <input checked="" type="checkbox"/> Received on Ice |
| <input checked="" type="checkbox"/> Correct Containers(s) |
| <input checked="" type="checkbox"/> Sufficient Sample Volume |
| <input type="checkbox"/> Headspace Present (NOC) |
| <input type="checkbox"/> Temperature Blank |
| <input checked="" type="checkbox"/> Received within Holding Time |

| Plastic Containers |
|----------------------------|
| A- Plastic Unpreserved |
| B- Miscellaneous Plastic |
| C- Cyanide Qt (NaOH) |
| E- Colliform/Ecol/HPC |
| F- Sulfide Qt (Zn Acetate) |
| L- Mercury 1631 |
| M- Metals Pint (HNO3) |
| N- Nutrient Pint (H2SO4) |
| R- Radiological (HNO3) |
| S- Sludge Cup/Tubs |
| Q- Plastic Bag |

| Glass Containers |
|-----------------------------|
| D- 625 (Na2S2O3) |
| G- Glass Unpreserved |
| H- HAAs (NH4C) |
| J- 508/515/525 (Na2SO3) |
| K- 515.3 Herbicides |
| O- Oil & Grease (HCl) |
| P- Phenols (H2SO4) |
| T- TOC/TOX (H3PO4) |
| U- 531 (NiCAA, Na2S2O3) |
| V- 524/THMC (Ascorbic Acid) |
| W- 820 VOC (1:1 HCl) |
| X- Vial Unpreserved |
| Y- 624/504 (Na2S2O3) |
| Z- Miscellaneous Glass |



Certificate of Analysis

Report Footnotes

Abbreviations

ND = Not detected at the corresponding Minimum Reporting Limit.

1 mg/L = one milligram per liter or 1 mg/Kg = one milligram per kilogram = 1 part per million.

1 ug/L = one microgram per liter or 1 ug/Kg = one microgram per kilogram = 1 part per billion.

1 ng/L = one nanogram per liter or 1 ng/Kg = one nanogram per kilogram = 1 part per trillion.

Flag Descriptions

2015 Spring Composite Samples



6/1/2015

Work Order: 1505136

Salt Lake City Public Utilities


**Attn: Greg Archuleta
1530 South West Temple
Salt Lake City, UT 84115**

Client Service Contact: 801.262.7299

The analyses presented on this report were performed in accordance with the National Environmental Laboratory Accreditation Program (NELAP) unless noted in the comments, flags or case narrative. If the report is to be used for regulatory compliance, it should be presented in its entirety, and not be altered.



Approved By:


Dave Gayer, Laboratory Director

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Sandy, Utah 84070

801.262.7299 Main

866.792.0093 Fax

www.chemtechford.com

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Certificate of Analysis

Lab Sample No.: 1505136-01

| | |
|--|--|
| Name: Salt Lake City Public Utilities | Sample Date: 5/15/2015 1:15 AM |
| Sample Site: Gale | Receipt Date: 5/15/2015 3:56 PM |
| Comments: | Sampler: Dustin White |
| Sample Matrix: Water | Project: Storm Water Composite |
| PO Number: 51-1-11-5161 | |

| Parameter | Sample Result | Minimum Reporting Limit | Units | Analytical Method | Preparation Date/Time | Analysis Date/Time | Flag |
|------------------------------|---------------|-------------------------|----------|-------------------|-----------------------|--------------------|------|
| Calculations | | | | | | | |
| Dissolved Nitrogen | ND | 1.0 | mg/L | Calc | 05/29/2015 17:19 | 5/29/2015 17:19 | |
| Hardness, Total as CaCO3 | 188 | 1 | mg/L | SM 2340 B | 05/29/2015 17:08 | 5/29/2015 17:11 | |
| Total Nitrogen | 2.9 | 1.0 | mg/L | - | 05/29/2015 18:03 | 5/29/2015 18:03 | |
| Inorganic | | | | | | | |
| Biochemical Oxygen Demand | 17 | 5 | mg/L | SM 5210 B | 05/15/2015 16:41 | 5/20/2015 13:05 | |
| Dissolved Kjeldahl Nitrogen | ND | 1 | mg/L | SM4500 NH3-D | 05/25/2015 07:56 | 5/29/2015 16:20 | |
| Nitrate as N | 0.9 | 0.1 | mg/L | EPA 300.0 | 05/15/2015 17:00 | 5/15/2015 17:00 | |
| Nitrite as N | ND | 0.5 | mg/L | EPA 300.0 | 05/15/2015 17:00 | 5/15/2015 17:00 | |
| pH | 7.6 | 0.1 | pH Units | SM 4500 H-B | 05/15/2015 16:00 | 5/15/2015 16:00 | |
| Phosphorus, Dissolved as P | 0.05 | 0.01 | mg/L | SM 4500 P-E | 05/16/2015 13:30 | 5/16/2015 17:00 | |
| Phosphorus, Total as P | 0.31 | 0.01 | mg/L | SM 4500 P-E | 05/16/2015 13:30 | 5/16/2015 17:00 | |
| Total Dissolved Solids (TDS) | 300 | 20 | mg/L | SM 2540 C | 05/18/2015 11:54 | 5/18/2015 11:54 | |
| Total Kjeldahl Nitrogen | 2 | 1 | mg/L | SM 4500 NH3-D | 05/25/2015 07:56 | 5/29/2015 16:20 | |
| Total Suspended Solids (TSS) | 38 | 20 | mg/L | SM 2540 D | 05/19/2015 13:00 | 5/19/2015 13:00 | |
| Metals | | | | | | | |
| Calcium, Total | 48.9 | 0.2 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:29 | |
| Cadmium, Total | 0.0002 | 0.0002 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:00 | |
| Copper, Total | 0.0130 | 0.0010 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:00 | |
| Lead, Total | 0.0047 | 0.0005 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:00 | |
| Mercury, Total | ND | 0.0002 | mg/L | EPA 245.1 | 05/19/2015 10:49 | 5/20/2015 11:13 | |
| Magnesium, Total | 16.1 | 0.2 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:29 | |
| Selenium, Total | 0.0013 | 0.0005 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:00 | |
| Zinc, Total | 0.05 | 0.01 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:29 | |

3 of 6



CHEMTECH-FORD
LABORATORIES

Certificate of Analysis

Lab Sample No.: 1505136-02

| | |
|--|--|
| Name: Salt Lake City Public Utilities | Sample Date: 5/15/2015 1:15 AM |
| Sample Site: Forest Dale | Receipt Date: 5/15/2015 3:56 PM |
| Comments: | Sampler: Dustin White |
| Sample Matrix: Water | Project: Storm Water Composite |
| PO Number: 51-1-11-5161 | |

| Parameter | Sample Result | Minimum Reporting Limit | Units | Analytical Method | Preparation Date/Time | Analysis Date/Time | Flag |
|------------------------------|---------------|-------------------------|----------|-------------------|-----------------------|--------------------|------|
| Calculations | | | | | | | |
| Dissolved Nitrogen | 1.0 | 1.0 | mg/L | Calc | 05/29/2015 17:19 | 5/29/2015 17:19 | |
| Hardness, Total as CaCO3 | 71 | 1 | mg/L | SM 2340 B | 05/29/2015 17:08 | 5/29/2015 17:11 | |
| Total Nitrogen | 3.0 | 1.0 | mg/L | - | 05/29/2015 18:03 | 5/29/2015 18:03 | |
| Inorganic | | | | | | | |
| Biochemical Oxygen Demand | 16 | 5 | mg/L | SM 5210 B | 05/15/2015 16:41 | 5/20/2015 13:05 | |
| Dissolved Kjeldahl Nitrogen | 1 | 1 | mg/L | SM4500 NH3-D | 05/20/2015 07:36 | 5/22/2015 17:01 | |
| Nitrate as N | ND | 0.1 | mg/L | EPA 300.0 | 05/15/2015 17:00 | 5/15/2015 17:00 | |
| Nitrite as N | ND | 0.5 | mg/L | EPA 300.0 | 05/15/2015 17:00 | 5/15/2015 17:00 | |
| pH | 7.9 | 0.1 | pH Units | SM 4500 H-B | 05/15/2015 16:00 | 5/15/2015 16:00 | |
| Phosphorus, Dissolved as P | 0.04 | 0.01 | mg/L | SM 4500 P-E | 05/16/2015 13:30 | 5/16/2015 17:00 | |
| Phosphorus, Total as P | 0.38 | 0.03 | mg/L | SM 4500 P-E | 05/16/2015 13:30 | 5/16/2015 17:00 | |
| Total Dissolved Solids (TDS) | 84 | 20 | mg/L | SM 2540 C | 05/18/2015 11:54 | 5/18/2015 11:54 | |
| Total Kjeldahl Nitrogen | 3 | 1 | mg/L | SM 4500 NH3-D | 05/20/2015 07:36 | 5/22/2015 16:48 | |
| Total Suspended Solids (TSS) | 184 | 20 | mg/L | SM 2540 D | 05/19/2015 13:00 | 5/19/2015 13:00 | |
| Metals | | | | | | | |
| Calcium, Total | 21.1 | 0.2 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:33 | |
| Cadmium, Total | 0.0002 | 0.0002 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:05 | |
| Copper, Total | 0.0271 | 0.0010 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:05 | |
| Lead, Total | 0.0123 | 0.0005 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:05 | |
| Mercury, Total | ND | 0.0002 | mg/L | EPA 245.1 | 05/19/2015 10:49 | 5/20/2015 11:13 | |
| Magnesium, Total | 4.5 | 0.2 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:33 | |
| Selenium, Total | ND | 0.0005 | mg/L | EPA 200.8 | 05/19/2015 08:30 | 5/20/2015 18:05 | |
| Zinc, Total | 0.09 | 0.01 | mg/L | EPA 200.7 | 05/19/2015 08:30 | 5/20/2015 17:33 | |



CHEMTECH FORD LABORATORIES
Sample Receipt

Work Order # 05136

Delivery Method:

- USPS
- FedEx
- Walk-in
- Chemtech Courier
- Customer Courier

Receiving Temperature 6.7 °C

| Sample Condition (check if yes) |
|--|
| <input type="checkbox"/> Custody Seals |
| <input type="checkbox"/> Containers Intact |
| <input checked="" type="checkbox"/> COC/Labels Agree |
| <input checked="" type="checkbox"/> Preservation Confirmed |
| <input checked="" type="checkbox"/> Received on Ice |
| <input checked="" type="checkbox"/> Correct Container(s) |
| <input checked="" type="checkbox"/> Sufficient Sample Volume |
| <input type="checkbox"/> Headspace Present (VOC) |
| <input type="checkbox"/> Temperature Blank |
| <input checked="" type="checkbox"/> Received within Holding Time |

| Plastic Containers |
|-----------------------------|
| A- Plastic Unpreserved |
| B- Acetone |
| C- Cyanide Oil (NACOH) |
| E- Coliform/Ecol/HPC |
| F- Sulfide Oil (7% Acetate) |
| L- Mercury 2.631 |
| M- Metals Print (HND3) |
| N- Nutrient Print (H2SO4) |
| R- Radiological (HND3) |
| S- Sludge Cups/Tubs |
| G- Plastic Bag |

| Glass Containers |
|-----------------------------|
| D- 651 (N2/SO3) |
| G- Glass Unpreserved |
| H- HAA5 (NH4Cl) |
| I- 508/515/525 (N2/SO3) |
| K- 515.3 Herbicides |
| O- Oil & Grease (HC) |
| P- Phenols (H2SO4) |
| T- TOC/TOX (H3PO4) |
| U- 531 (MGAA, M225203) |
| V- 524/7PHAC (Asorbic Acid) |
| W- 826/VOG (L1-HCl) |
| X- 826/VOG (H2SO4) |
| Z- Miscellaneous Glass |

| Sample # | Container | Chemtech Lot # or Preservative | Misc Volume (oz/ml) | Comments | Prepared in Field by Client | | | Prepared in Receiving/Laboratory | | | Prepared by Client/Third Party | | | | | | | |
|----------|-----------|--------------------------------------|---------------------------|----------|-----------------------------|----------------------|-------------------|----------------------------------|----------------------|-------------------|--------------------------------|----------------------|-------------------|--|--|--|--|--|
| | | | | | Number of Subsamples | Number of Containers | Number of Samples | Number of Subsamples | Number of Containers | Number of Samples | Number of Subsamples | Number of Containers | Number of Samples | | | | | |
| 01-05 | A1/2 | | | | | | | | | | | | | | | | | |
| | AR | | | | | | | | | | | | | | | | | |
| | M | 267 | | | | | | | | | | | | | | | | |
| | N | 261 | | | | | | | | | | | | | | | | |
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Certificate of Analysis

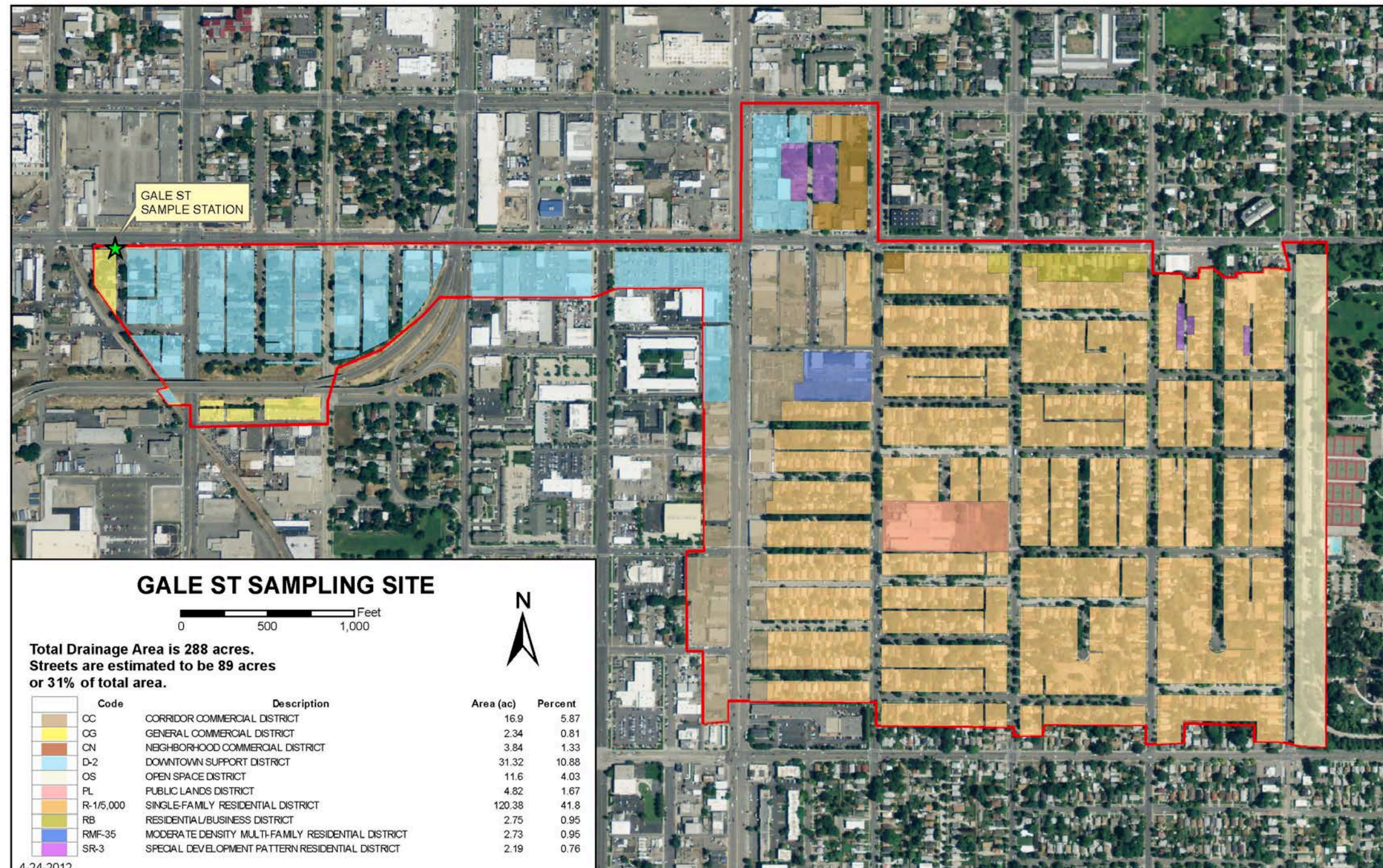
Report Footnotes

Abbreviations

ND = Not detected at the corresponding Minimum Reporting Limit.
1 mg/L = one milligram per liter or 1 mg/Kg = one milligram per kilogram = 1 part per million.
1 ug/L = one microgram per liter or 1 ug/Kg = one microgram per kilogram = 1 part per billion.
1 ng/L = one nanogram per liter or 1 ng/Kg = one nanogram per kilogram = 1 part per trillion.

Flag Descriptions

FIGURE AII.1 – GALE STREET DRAINAGE BASIN MAP (JOR 8.32)



file - O:\Arcview\arcgis projects\stormwater\galest sampler4-9-12.mxd

FIGURE AI.2 – LEE DRAIN DRAINAGE BASIN MAP (LED 1.87)

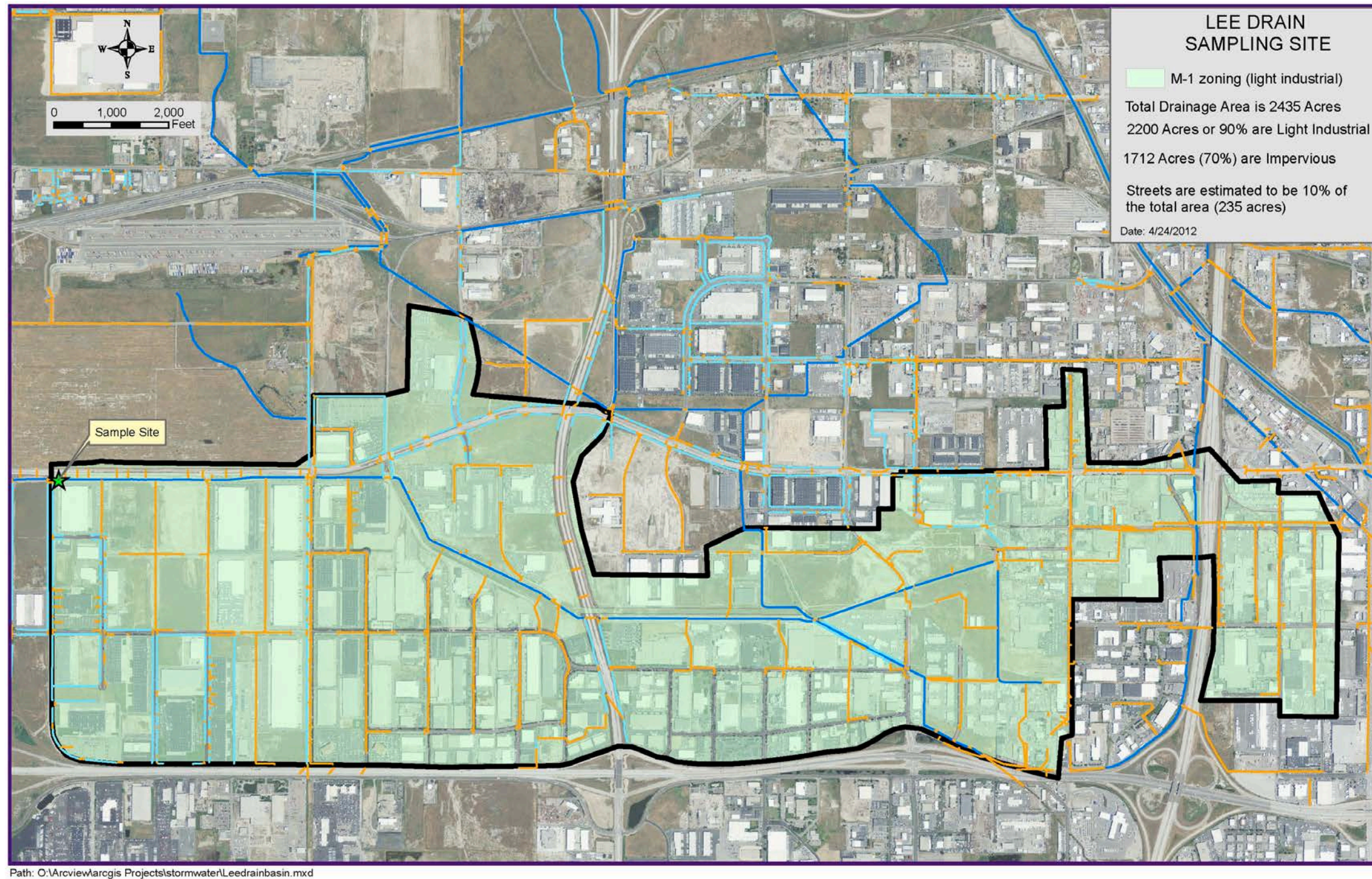


FIGURE AII.3 FOREST DALE DRAINAGE BASIN MAP (MIL 2.60)

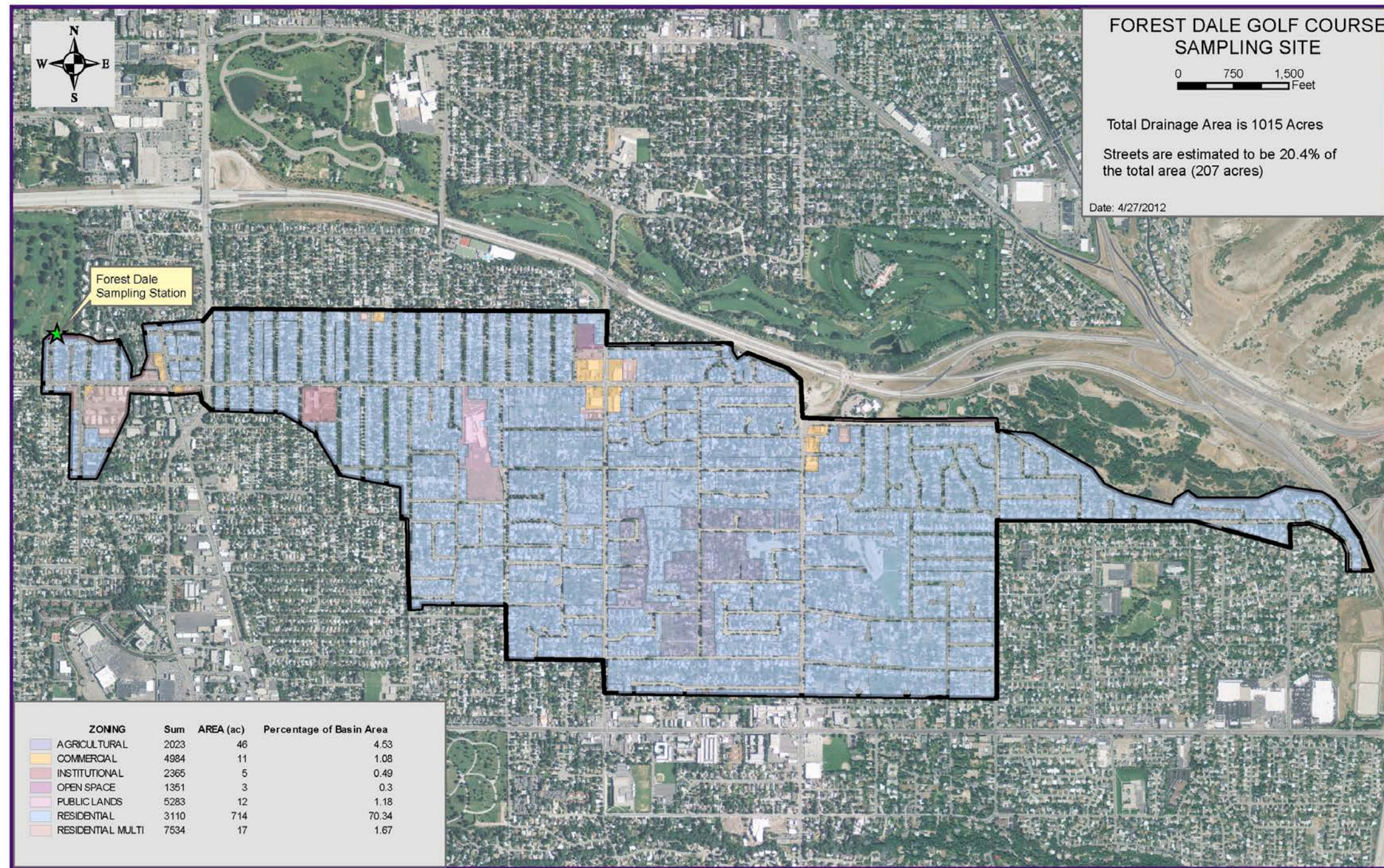


TABLE AII.1 Annual Event Mean concentration Results

| Year | Constituent | MIL 2.60 - Residential | LED 1.87 - Industrial | JOR 8.32 - Mixed | Annual Salt Lake City EMC |
|------|-------------------------------|------------------------|-----------------------|------------------|---------------------------|
| 2010 | Total Suspended Solids (mg/L) | 273.45 | 196.03 | 288.79 | 238.03 |
| 2011 | | 121.02 | 116.02 | 113.02 | 116.57 |
| 2012 | | 107.50 | 106.02 | 207.03 | 121.15 |
| 2013 | | 222.52 | 115.05 | 215.85 | 144.50 |
| 2014 | | 92.01 | 74.01 | 200.03 | 126.57 |
| 2015 | | 184.00 | NA | 38.00 | 111.00 |
| 2010 | Total Phosphorus (mg/L) | 0.76 | 0.50 | 0.68 | 0.63 |
| 2011 | | 0.20 | 0.26 | 0.32 | 0.26 |
| 2012 | | 0.36 | 0.30 | 0.61 | 0.36 |
| 2013 | | 0.07 | 0.20 | 0.59 | 0.20 |
| 2014 | | NA | 0.28 | 0.75 | 0.48 |
| 2015 | | 0.38 | NA | 0.31 | 0.35 |
| 2010 | BOD ₅ (mg/L) | 45.02 | 11.00 | 39.63 | 28.15 |
| 2011 | | 5.00 | 5.00 | 12.00 | 6.19 |
| 2012 | | 21.10 | 2.50 | 27.00 | 12.35 |
| 2013 | | 7.33 | 11.83 | 40.85 | 14.38 |
| 2014 | | NA | 9.00 | 55.01 | 28.19 |
| 2015 | | 16.00 | NA | 17.00 | 16.50 |
| 2010 | Total Copper (mg/L) | 0.05 | 0.03 | 0.06 | 0.04 |
| 2011 | | 0.01 | 0.01 | 0.02 | 0.01 |
| 2012 | | 0.02 | 0.01 | 0.04 | 0.02 |
| 2013 | | 0.02 | 0.02 | 0.04 | 0.02 |
| 2014 | | NA | 0.01 | 0.04 | 0.02 |
| 2015 | | 0.03 | NA | 0.01 | 0.02 |
| 2010 | Total Lead (mg/L) | 0.03 | 0.01 | 0.05 | 0.02 |
| 2011 | | 0.01 | 0.00 | 0.02 | 0.01 |
| 2012 | | 0.01 | 0.01 | 0.03 | 0.01 |
| 2013 | | 0.01 | 0.01 | 0.03 | 0.01 |
| 2014 | | NA | 0.00 | 0.02 | 0.01 |
| 2015 | | 0.01 | NA | 0.00 | 0.01 |
| 2010 | Total Zinc (mg/L) | 0.23 | 0.12 | 0.29 | 0.19 |

Appendix II – MONITORING DATA | **2015**

| | | | | | |
|------|--|------|------|------|------|
| 2011 | | 0.05 | 0.05 | 0.08 | 0.06 |
| 2012 | | 0.10 | 0.07 | 0.20 | 0.10 |
| 2013 | | 0.07 | 0.04 | 0.09 | 0.06 |
| 2014 | | NA | 0.00 | 0.00 | 0.00 |
| 2015 | | 0.09 | NA | 0.05 | 0.07 |

APPENDIX III – PUBLIC EDUCATION PROGRAMS

Salt Lake County Stormwater Quality Fair 2015: The Coalition hosted a two day Water Quality Fair for Salt Lake Valley 4th grade students in May of 2015 at Utah’s Hogle Zoo. It was the eighth year of the Fair. In 2015 over 3,000 Salt Lake County 4th grade students attended, as well as 500 adult chaperones. The growth has been attributed to additional cities financially contributing funding for buses for schools that might not otherwise be able to attend.

School children attended from the following cities: Salt Lake City, Sandy City, Cottonwood Heights City, South Salt Lake City, West Valley City, Riverton City, Taylorsville City and Draper City. All students visited 12 booths designed to educate about stormwater pollution and prevention and other water topics. In addition, all guests received printed materials to take home, designed to reinforce the principals learned at the water fair.

The 2016 Water Fair will continue to host schools from the current cities above in with its full capacity reserved nine months prior to the Fair. As spots open up other Cities will be recruited to bring in new schools from underserved areas of the County. In addition, South Salt Lake City staff has plans to design a new Stormwater lesson to present at the Fair to educate the kids about Stormwater prevention and pollution in a unique and fun way.

Media Campaign

Eighty-four percent of Salt Lake County residents continue to list our TV Media Campaign as their main source for gathering information on Stormwater pollution and protection. The Coalition, with the assistance of a consultant, conducted a mass media campaign for the spring of 2015. The Media Campaign is our most effective tool in continuing the education of our residents about stormwater pollution and prevention. In 2015 the Coalition partnered with the two top Nielsen rated TV stations in the Salt Lake County market to reach the largest number of Salt Lake County residents. The Coalition has chosen to partner up with two local stations rather than simply placing media spots. By doing so the Coalition has been able to leverage their limited funds with both local stations matching dollar for dollar the Coalition’s media budget with bonus advertising.

Television:

Spring Campaign 2015 - A three-week television campaign ran in May/ 2015 as part of our partnership with the top three local TV stations. The County purchased and ran over 150 spots in news and primetime targeted toward the ideal demographic 25-54 age group. Over 2.1

million viewers saw the Coalition TV spot a minimum of 3 times during the three-week period. As a rule of thumb it generally takes a viewer three times to see a message over a short period of time to incorporate the message into their daily life.

Live Location Shots on Local News Programming - As part of our partnership package with the Top Rated News Station in Utah, the top two stations sent their top Weather Personalities to broadcast live from our Fair in 2015. The broadcast personalities were on site during the noon hour, broadcasting live four times from the Salt Lake County Water Quality Fair.

All the live shots from the Fair showcased the numerous booth activities highlighting Stormwater and Salt Lake County 4th grade students actively engaged in learning about stormwater. The live remotes were seen by over 150,000 residents, 3+ times as a result of the four live shots from two stations during two Water Quality Fairs. Teasers and actual running of our spot occurred as part of news coverage that day.

Movie Theatre Advertisement:

The Coalition's two current TV spots ran at the four largest Megaplex theatres for a four-week run during the months of June 2015. The campaign months were selected due to the high frequency of viewers during those time periods (blockbuster movies). The spots ran an average of 3 times before the beginning of each movie (37 screens) and ran on the big screen TV in the main lobby of all three theatres an average of 10 times daily. Over 1,000,000 Salt Lake County residents saw our message a minimum of three times in one sitting on a monthly basis.

Internet Advertising with local TV Partners:

A teaser, coalition border ad and internet link to our Coalition website was placed on two local TV websites during the months of April, May and June 2015. Between the two websites, our leader boards received over 250 million hits between both stations over a one-month period. Each station estimates that on a monthly basis over 100,000 new viewers logged-on and viewed our advertisement during the 6 months noted above. We anticipate that as the way people view media changes we will expand this area of advertising to reach traditional TV viewers who now seek their information via the Internet.

Educational Materials

The Coalition's educational materials are designed to promote and educate the community at large about stormwater quality issues. These materials include information, as well as, items designed to promote the stormwater program, and are primarily obtained through the Salt Lake County Stormwater Coalition.

Bilingual educational printed materials:

The Coalition continues to disperse Spanish translated materials to our Spanish speaking residents about stormwater prevention and pollution.

Brochures:

Over 1,000 Informational brochures regarding specific activities were distributed throughout the County during the first six months of 2015:

- Pet waste disposal
- Landscaping
- Erosion control
- Fresh concrete and mortar application
- Paint and household hazardous waste
- Household and vehicle maintenance

Lip Balm and Reusable Grocery Bags:

In 2015, Lip Balm and Reusable Grocery Bags were produced as leave behinds for giveaways at Public Events and local school distribution. They were a huge success and we plan to order more for 2016. Five thousand bags and two thousand lip balms were distributed in Salt Lake County in 2015.

Dr. Strangewater and the Downstream Deputies Activity Book:

The Coalition reprinted the popular Dr. Strangewater and the Downstream Deputies in 2015 and continues to distribute the 8-page stormwater educational activity book designed to supplement the Dr. Strangewater DVD. The book's theme builds upon the information shared from the DVD in the same manner as the activity book.

Educational DVD:

Dr. Strangewater and the Downstream Deputies DVD - The Coalition continues to distribute an educational DVD entitled "Dr. Strangewater and the Downstream Deputies" to educate 4th grade students about stormwater in a fun way, giving them valuable tips on keeping stormwater clean.

Internet and Social Media

In 2015, we continue to work actively with Cities and Agencies within the Coalition to provide relevant and timely information on our newly designed Coalition Website designed to educate residents in a more detailed level about stormwater pollution and prevention and act as a resource for residents to contact their municipalities. In addition, the website highlights local, urban areas throughout the County that residents can visit which are affected by stormwater.

In 2015, a web campaign was simultaneously launched via our partner TV Networks websites and social media to connect with the Coalition’s website, Facebook and Twitter page. The benefits of the Coalition’s Website, along with social media tools continue to be slowly cultivated as we enter into a new level of conversation with our Salt Lake County residents.

Stream Crossing Identification

In 2015, we continued to maintain the current stream crossing signs posted throughout the County. Stream crossing signs act as a reminder to residents as they are traveling throughout the County of the bodies of water that are prevalent throughout the County not in some far off location. In addition, bringing to top of mind their activities, which affect stormwater pollution and prevention.

Additional

In addition to these programs, the Coalition has developed other stormwater education components for the general public. Below is a summary of the activities conducted during 2014/2015:

KSL Weather Lab Project 2015:

KSL Weather Lab was hosted by two local weather personalities at the Discovery Gateway where over 1,500 children, age 7 through 11, learned about the effects of stormwater pollution and received Coalition education materials to take home and share with their family members. Salt Lake County elementary school children visited the “Weather Lab” twice a week during the months of April and May 2014 and May 2015.

Droplet Character:

Our brand of the Droplet Character, in conjunction with the ‘*We All Live Downstream*’ slogan continues to receive an 80% recognition with our Salt Lake County residents and keeping our stormwater clean. We will continue to use both on all new printed and produced pieces and all electronic media.

Public Events:

The Coalition participates in information booths each year. The information booths provide an additional mechanism to reach a larger audience regarding stormwater quality. Informational brochures and “leave behind” items such as pencils and magnets are distributed at the booths. In addition, the information booths provide a forum for the public to respond to and comment on the stormwater program. Over 12,000 Salt Lake County residents were exposed to our message at many public events in 2015. Below is a sampling of the events:

May 2015

Salt Lake County Stormwater Quality Fair

In addition over 10,000 promotional materials were distributed to County residents at these

Appendix IV - Inspection Data

2015 – Industrial Inspections

2015 – Illicit Discharge Response

2015 – Construction Site Inspections

2015 – Industrial Site Inspections

| License | Business Name | Street Name | Address | Zip | Site Contact/Corporate Contact | Email | State Permit | SIC Code | Sector | NAICS Code Description | Inspection Date | SSID Number | SSID Issue | SSID Expire | Follow Up Date | Next Inspection Date | Note | Business License Type New/Renew |
|---------------|---|--------------|---------------------|------------|-----------------------------------|--|--------------|----------|--------|-------------------------------------|-----------------|-------------|------------|-------------|----------------|----------------------|--|---------------------------------|
| LIC1998-00688 | KOMATSU EQUIPMENT COMPANY | DISTRIBUTION | 1486 S Distribution | 84104-0000 | Jim Slade | jims@komatsueq.com | UTR001032 | 3531 | AB | ALL OTHER MOTOR VEHICLE DEALERS | 2/17/2015 | SSID000039 | 8/8/2011 | 12/31/2013 | | ##### | Applied for NEC-NEC denied. Needs to renew MSGP Permit | License Issued |
| N/A | SALT LAKE CITY CORPORATION WATER RECLAMATION FACILITY | 2300 N | 1365 W 2300 N | 84116 | Giles Demke | Giles.demke@slcgov.com | UT0021725 | 4952 | T | | 3/4/2015 | SSID000001 | 3/4/2015 | 11/30/2019 | | 2016- March | 1.0 MGD or more Site is in compliance, SWPPP well maintained | |
| NA | Utah Air National Guard | 2200 W | 765 N. 2200 West | 84116 | Mark Emery, Environmental Manager | mark.emery@ang.af.mil | UTR000436 | 4581 | S | Air Refueling and Aircraft de-icing | 5/27/2015 | SSID000074 | ##### | 12/31/2017 | | 2020 - May | | |

2015 – Illicit Discharge Response

ILLICIT DISCHARGE DETECTION AND ELIMINATION

January 1 - June 30, 2015

| Zone | Year | Date | # | Dir | Location | Address | SLVHD/City Contact | Business Contacts | Company Name | Incident Type | Material Discharged | Action Taken | Comments | Result | GIS | File Cabinet | Computer | SLC Cost Recovery |
|------|------|-----------|-------|-----|---------------------|-------------------------|--|-------------------------|----------------------------------|--|---|--|---|---------|-----|--------------|----------|------------------------------|
| 4 | 2015 | 1/8/2015 | 1061 | S | Major St. | 1061 S. Major St. | Ron Lund/Greg Archuleta SLC SRT member | Tom Vasiliou | A and B Sewer and drain cleaning | Accidental Spill | Hydraulic Fluid | cleaned up with absorbent material by SLC/SLVHD SLC street sweepers called out | SLC public Services billed Customer for time and material no storm drains effected. | Closed | N | No | no | Public Service cost recovery |
| 4 | 2015 | 1/15/2015 | 2278 | S | 800 East | 2278 S 800 East | Greg Archuleta/Brandon Peterson/SLVHD Karla B. | Resident | N/A | Report of a broken sewer line. By neighbor | None | Brandon Peterson and Greg Archuleta responded. | Did not find any evidence of a discharge. Brandon looked at clean out and found location of line no obvious sign of a break | Closed | n | No | no | N/A |
| 3 | 2015 | 1/23/2015 | 500s | | 300 East | 500 South 300 East | Anthony Garcia | Joe Schmidtke | Wasatch Commercial Builders | bmp and housekeeping | broken bags of cement and stucco and scattered material | Clean up by Contractor | evidence of cement, mortar, stucco on the ground and not being controlled or maintained | | | | | |
| 3 | 2015 | 1/23/2015 | 410S | s | Denver Street | 410 South Denver Street | Anthony Garcia | Ben Macbeth | Wasatch Commercial Builders | Spill | Cement wash out container overflowing with water | Contractor pumped container then had emptied | Water from cement wash out was escaping and flowing down gutter. Going south on Denver | | | | | |
| 4 | 2015 | 1/29/2015 | 1700S | | 1700 South 425 West | | Anthony Garcia/Greg Archuleta/Kevin Okleberry | NONE | ? | Reported bags of material had fallen off a truck | Gypsum- white powder | Clean up by SLCPU /SLCHD | High PH 13 | CLOSED | | | | |
| 3 | 2015 | 1/29/2015 | 500e | e | 420 South | 420 South 500 East | Anthony G./Greg A./Kevin O./Bill Menskey | Jim Waters 801-355-8473 | Goodyear/Cache Valley Tire INC | Illegal Discharge | Degreasing an washing of shop floors | Owner was having Emerald go out clean all catch basins and gutter on 500 East | | pending | | | | |
| 1 | 2015 | 1/30/2015 | 1300 | N | Rosewood Park | 1300 N 1000 west | Greg Archuleta/Dustin White | Will Snarr | Tesoro/SLC | water main break and diesel line break | Diesel fuel mixed with water main break | shutdown water main and diesel line contained and started | Clean up efforts are ongoing Tesoro is taking the lead and has | closed | Y | no | yes | n/a |

| | | | | | | | | | | | | | | | | | | |
|---|------|-----------|------|---|----------|---------------------|---|--|------------------|----------------------|---|--|---|----------|---|----|-----|-----|
| | | | | | | | | | | | | remediation efforts | contracted envirocare. Clean up finished and SLC water main to park moved to West side of the Park | | | | | |
| 1 | 2015 | 2/27/2015 | 2410 | W | 1700 S | 2410 W 1700 S | Greg Archuleta/Dustin White | Rob Daniels 801.972.3279 ext.1285 | IFA | organic sheen in box | unknown-possible organic material from products stored in IFA lot | Educated Rob Daniels on good housekeeping and state permits. Will require follow up | Rob Daniels said he would work on improving housekeeping measure and consider the material stored near storm drains. Follow up with Dustin White | on going | Y | no | yes | n/a |
| 1 | 2015 | 3/10/2015 | 800 | N | 550 W | 800 N 550 W | Greg Archuleta/Dustin White/Anthony Garcia/ Jesse Stewart | Brian Beazer, 801-212-2752, cell: 801-580-1312 | UPRR | Discharge | Hydrocarbon | Ongoing-Envirocare hired to monitor booms and mitigate and remove pollution from storm system. | Discharge has been identified by SLC as coming from UPRR north rail yard. SLC line east of the yard has been consistently dry while the west end of pipe coming out of UP's property has had continual flow with a hydrocarbon sheen and smell. SLC has been paying Envirocare since 3/10/15 to clean up and remediate as much as possible. | on going | Y | Y | yes | yes |
| 4 | 2015 | 4/2/2015 | 1300 | S | 700 West | 1300 South 700 West | Anthony Garcia | | Granite/ Penhall | Discharge | Cement slurry from cement cutting on viaduct | Contractor had halted cement cutting activity to install more BMPS and clean up the slurry in the gutters. | No evidence of cement getting into storm drains due to contractor had installed gravel bags around inlets/ also | closed | | | | |

contractor did add straw waddle and check down damns to help minimize cement slurry from flowing down viaduct

| | | | | | | | | | | | | | | | | | | |
|---|------|-----------|-----|---|--------------|--------------------|---|----------------------------|-----------------------|-------------------|---|---|--|--------|---|----|---|----|
| 1 | 2015 | 4/3/2015 | 625 | S | Redwood | 625 S Redwood Rd. | Anthony Garcia/Dustin White/Karla Bartholomew | 801-637-1532 | Umana Carpet Cleaners | Illegal Discharge | soapy water, SLCHD took samples for surfactants | Educated carpet cleaner and went and met with his boss/partner and educated him. We also investigated where they said they had been discharging in the apartment complex which they live at 425 S 1000 E. It looks like they had been dumping in a storm drain there too. Karla was going to follow up with possible fines and Possible NOV. We are closing this out on our end. We responded, educated and made sure the discharge was cleaned up. | The owner of carpet cleaner said he would find a sanitary sewer to now dump into. It was clearly stated to him not to discharge anything that was not sanitary sewer and that he may have to get some permission to dump into some peoples sewers. | closed | y | no | y | no |
| 3 | 2015 | 4/10/2015 | 814 | S | Jefferson St | 814 S Jefferson St | Dustin White/Anthony Garcia/ Eric Ferguson/ Karla Bartholomew | Bernard Cross 385-216-9359 | N/A | Discharge | Paint can was washed out in the gutter. No paint reached the storm drain. | Educated the individual and made him clean up- he brushed dry paint with wire brush and swept up and trashed the remnants | No paint reached the storm drain and the individual cleaned up the paint | closed | Y | no | Y | No |

| | | | | | | | | | | | | | | | | | | |
|---|------|-----------|------|---|------------------|--------------------------|---|------------------------------|--------------------------------|------------------|---------------------------------------|--|---|-------------------------------|---|----|---|----------------------------|
| 1 | 2015 | 4/14/2015 | 2140 | N | Redwood Rd | 2140 N Redwood Rd Ste 30 | Dustin White/ Greg Archuleta/ Karla Bartholomew | Ryan Preece, 801-301-1690 | Power Engineering | Discharge | Propylene Glycol, 2-3 gallons | After tracking down the culprit, Power Engineering, they were required to lay down absorbent and sweep the product up and then to throw into the trash. They also were required to remove and replace the sod where the product had reached the open ditch. Power engineering was required to submit a P2 plan to SLC. Warning letter sent and cost recovery for SLC employee's time will be done. | An employee accidentally spilled 2-3 gallons of propylene glycol and then rinsed the spilled product with 40- 50 gallons of water down the drainage gutter and into the ditch. The Warehouse supervisor instructed the employee to do so and did not follow the current spill plan that Power Engineering has in place. | Closed Warning letter sent | Y | Y | Y | SLCPU (time) cost recovery |
| 2 | 2015 | 4/20/2015 | 950 | N | Canyon Rd. | 950 N. Canyon Rd. | Anthony Garcia / John Hogan | | Memory Grove Park / City Creek | Discolored Water | Blue Dye/ took a sample no traceables | Took a ph test and pulled a sample and went up stream to see if I could locate a source I was unable to see anything. | possible a pond dye due to I was unable to see in the grab sample and due to follow up the next day the color was reduced | CLOSED | | | | |
| 3 | 2015 | 4/23/2015 | 2400 | E | Sunnyside Avenue | 2400 E Sunnyside | Greg Archuleta/ Kevin Okleberry | Kurt Larson | Larson Pool Plastering | Accidental Spill | plaster mix | Responsible Party Cleanup | Hose on pump popped out of Eco pan and discharged estimated about 5-10 gal into gutter Contractor was cleaning up upon arrival of SLC employee. SLVHD possible NOV | Closed out | y | no | y | No |

| | | | | | | | | | | | | | | | | | | |
|---|------|-----------|------|---|-------------|---------------------|------------------------------|--------------|----------------------|----------------------|---|--|---|--------|---|----|---|----|
| 4 | 2015 | 4/23/2015 | 2017 | S | Lincoln St. | 2017 S. Lincoln St. | Greg Archuleta | Rod Ramoneda | Coit Carpet cleaning | Discharge | Waste Water from carpet cleaning activities | Investigate allegations of a carpet cleaner discharging waste water into a parking lot storm drain | Caller reported to DEQ NRC call center on 4/22/2015 at 5:00 pm discharge took place on 4/21/2015. No proof of discharge, so no warning letter will be sent out. Greg educated and informed the carpet cleaners (Rod Romando) about the stormwater system and reminded them discharging their waste in the system is absolutely not acceptable and illegal. Rod Romando with Coit told Greg that their protocol was to discharge into the sanitary sewer. He said they're supposed to use the customer's bath tub, toilet or to take it back to their shop for disposal. | closed | Y | no | Y | No |
| 1 | 2015 | 4/24/2015 | 474 | W | 900 North | 474 W 900N | Greg Archuleta/Jesse Stewart | Alex Mongold | Tesoro | Accidental Discharge | Diesel, Hydrogen Sulfide, hydrocarbons | Tesoro hired envirocare to wipe up all discharged material. Envirocare used oil pads to wipe up spots of oil. The affected grass was cut and disposed of. Tesoro | Unit relief valve on the FCC unit failed causing the release of an undetermined amount of diesel fuel, hydrocarbons and hydrogen sulfide. Tesoro set up | Closed | Y | no | Y | |

| | | | | | | | | | | | | | | | | | | | |
|---|------|-----------|------|---|--------------------|------------------------|---------------------------------|--------------|---------------------|------------------|--|--|---|----------------|---|---|---|---|--|
| | | | | | | | | | | | protected storm drains with booms as a precaution. Storm drain system was not affected. | an incident command center and was proactive in the clean up and involving SLC. | | | | | | | |
| 4 | 2015 | 4/27/2015 | 1190 | E | Harvard Ave. | Harvard Ave. 1190 East | Anthony Garcia | Roy Keats | Tycoon Construction | Discharge | pumping sewer waste water from broken city main | turned pump off and was making contractor clean site/ they did contract Envirocare to clean street and inlets down Harvard Ave | | | | | | | |
| 4 | 2015 | 5/8/2015 | 2166 | S | 1700 E | 2166 S 1700 E | Dustin White/Steve Bergen, SLC/ | John Plugu | SLC School District | Dye Test | None. Report was for bright green water that ended up being fluorescent dye. No harm+L1204 | None required/dye is not harmful in any way. | The green dye was testing the storm boxes on the track around the football field. The storm line being tested dumps right into parleys creek in the park. A SLC Parks worker noticed the bright green dye and informed Steve Bergen who informed Dustin White. After some investigation, John Plugu with SLC school district was tracked down and it was determined they were dye testing the lines and the green substance was of no harm. | Closed | N | N | Y | N | |
| 3 | 2015 | 5/11/2015 | 200 | W | 700 South 200 West | | Anthony Garcia | Bo Velasquez | Dimond A-Questar | Accidental Spill | Sand Slurry/Flowabel fill | No product reached the drain. | nothing reached the storm drain | Warning letter | | | | | |

| | | | | | | | | | | | | | | | | | | |
|---|------|-----------|------|---|--------------------------|------------------------|-----------------------------------|---------------|---------------------|--|--------------------|---|--|--------|---|---|---|---|
| 4 | 2015 | 5/12/2015 | 1190 | E | Harvard Ave. | Harvard Ave. 1190 East | Anthony Garcia | Roy Keats | Tycoon Construction | Discharge | dirty ground water | stop pumping and was going to get the street cleaned up | we will need to issue a NOV, Due to this is the second offense in 2 weeks | | | | | |
| 1 | 2015 | 6/5/2015 | 2800 | N | 2800 North Rose Park LN. | | Anthony Garcia/ Jeremy Roberts | Telaini Lewis | | Grey water Discharge into County Canal | Grey Water | SLCHD is taking the lead and working with property owner and tenant | | Closed | | | | |
| 1 | 2015 | 6/5/2015 | | N | I-15 Freeway 500 North | | Anthony Garcia/ Nell Johansen | | | | | | | | | | | |
| 4 | 2015 | 6/15/2015 | 2826 | E | Devereaux | 2826 E Devereaux | Dustin White | | N/A | Pool discharge (allowable) | Pool water | Pool discharges are allowable discharges as long as the pool water is dechlorinated or dechlorinated to that of drinking water standards. No action taken, no action necessary. Used opportunity as public outreach and education- called owner and informed them of the requirements to discharge pool water | No initial response at the homeowner's house, but there was a noticeable hose coming from the backyard that appeared to be draining a pool. The curb was dry and appears any water discharged had dried up. No water to test for PH. The closest storm drain box was dry, this day was hot and close to 100 degrees- took opportunity to call homeowner and inform them of the requirements of discharging pool water. | closed | Y | N | Y | N |

2014 – Construction Site Inspections

January 1 - June 30, 2015

| DATE | Zone | 2015 Construction site Inspections: Project | Location/ Job site | SWP PP Insp. | Acr es | UTR NO. | SLSW # | Compl aint | Colum n1 | Comments | em ail | Column2 | Hard Copy | Electronic | GIS | Enforce ment Action | Colum n3 | Colum n4 |
|----------|------|---|----------------------|--------------|--------|------------|----------|------------|----------|---|--------------|-------------------------------|--------------|------------|-----|---------------------|--------------|----------|
| 01/05/15 | 4 | Taylor Gardnes | 1710 S West Temple | YES | 3.5 | UTR369 487 | SW002 68 | | | drive by due to storm | 801-710-7117 | Ktanner@kier | | | | Kirk Tanner | | |
| 1/6/2015 | 2 | Columbus Court PUD | 47&65 E - Silverhawk | yes | 4 | UTR359 517 | SW002 37 | yes | no | follow up inspection for SWPPP violations | yes | utahsbuilder3@gmail.com | | Yes | | Jeff Allred | 801-631-9859 | |
| 1/6/2015 | 2 | Marmalde Library | 500 North 300 West | YES | 1 | UTR368 037 | SW002 49 | NO | NO | up to code | YES | kellyr@ascentconstruction.com | | | | Kelly Rasmussen | 801-514-8371 | |
| 01/06/15 | 4 | Sugarhouse Plaza | 2100 S 1100 E | YES | >1 | | SW002 47 | NO | NO | drive by due to storm | yes | tim@allstateconstruction.org | 801-706-4043 | yes | yes | Tim Maynes | | |
| 01/06/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365 929 | SW001 58 | no | no | up to code | yes | chad@rimrock.us | | yes | yes | | | |
| 01/06/15 | 4 | Industrial Supply | 1635 South 300 West | YES | 4.45 | UTR368 345 | SW002 51 | NO | NO | UP TO CODE | | jessie.jacobsen@big-d.com | 801-430-0496 | | | Ruben Mendez | 801-484-8644 | |
| 01/06/15 | 4 | Enclave Apartments | 247 West 1400 South | no | | UTR367 325 | SW002 39 | NO | NO | sweeper truck was out | YES | aday@netwasatch.com | 280-390-5211 | | | Anthony Day | | |
| 01/06/15 | 4 | Taylor Gardnes | 1710 S West Temple | NO | 3.5 | UTR369 487 | SW002 68 | | yes | TRACKIING concerns but was cleaning the road upon arrival | 801-710-7117 | Ktanner@kier | | | | Kirk Tanner | | |
| 01/06/15 | 4 | Legacy Village at Sugarhouse | 1214 Wilmington Ave | no | 2.39 | UTR369 501 | SW002 71 | NO | NO | project has not started | | | | | | | | |
| 01/07/15 | 4 | Enclave | 247 West | YES | | UTR367 | SW002 | NO | NO | sweeper | YES | aday@netwasatch.com | 280-390-5211 | | | Anthony | | |

| 15 | | Apartment s | 1400 South | | 325 | 39 | | | truck was out Heavy tracking and a warning | S | | | | | Day |
|----------|---|--------------------------|-------------------------|-----|------|----|---------------------|----|--|---|-------------------|--|--|---------------------------------|-------------------|
| 01/07/15 | 4 | Tracy Aviary-Vet Clinic | Liberty Park | YES | | | SW002 25 | NO | NO | UP TO CODE | 801 - 232 - 724 6 | bengusco@gmail.com | | Ben Gustafson | |
| 01/07/15 | 4 | Tracy Aviary-Rain Forest | Liberty Park | YES | | | SW002 74 | NO | NO | Project just started and up to code | | agray@sirg.com ANDREW | | Andrew Grey | |
| 01/07/15 | 4 | Home 2 Suites-Foothill | 2350 South Foothill Dr. | YES | | | UTR369 417 SW002 73 | NO | NO | Minor track out | 801 - 707 - 432 6 | wes@rimrock.us | 801-707-4326 | Wes Hogan | |
| 01/08/15 | 4 | Industrial Supply | 1635 South 300 West | YES | 4.45 | | UTR368 345 SW002 51 | NO | NO | UP TO CODE | | jessie.jacobsen@big-d.com | 801-430-0496 | Ruben Mendez 801-484-8644 | |
| 01/08/15 | 4 | Enclave Apartments | 247 West 1400 South | YES | | | UTR367 325 SW002 39 | NO | NO | A Stop Work Notice was issued-heavy tracking | YES | aday@netwasatch.com | 280-390-5211 | Anthony Day | |
| 01/09/15 | 4 | Belmont Plaza | 200 east | yes | 1.07 | | UTR365 959 SW001 98 | no | no | PROJECT was repatching the street due to utility tie-ins | | nsimpson@landmarkexc.com | | Nate Hutchinson 801-473-9503 | |
| 01/09/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | | UTR365 645 SW002 08 | NO | NO | PROJECT NEEDS SILT FENCING INSTALLED AND SWPPP NEEDED to be updated | yes | menlovec@gmail.com | 801-671-4697 | Ken Menlove | |
| 1/14/15 | 3 | Encore Apartments | 352 South Denver St. | YES | 1.5 | | UTR367 325 | NO | NO | UP TO CODE | YES | mhenriksen@netwasatch.com | 702-429-9700 | M | Micheal Henriksen |
| 1/15/15 | 3 | State Street Plaza | 253 So State | yes | 1 | | UTR362 001 SW001 08 | No | No | UP TO CODE | Yes | easton@thelaportegroup.com | Yes | Yes | Yes |
| 1/15/15 | 3 | Utah Performin | Main St. 113 south | yes | 2.57 | | UTR365 965 SW001 82 | NO | NO | current and up to date on SWPPP | yes | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | Logan Probst/ Brent Hansen | |

| | | | | | | | | | | | | | |
|-----------|---|------------------------------------|--------------------------|-------------------|-------|---------------|---------------|-----|--|------------------------|-----------------------------------|-------------------------|------------------|
| 1/15/15 | 3 | g Arts | 111 Main | 111 South Main st | yes | | UTR366 197 | NO | NO | up to code and current | yes | steve.powell@okland.com | 801-4401821 |
| 1/15/15 | 3 | Liberty Crest Apartments | 200 East 141 So. | YES | 1.2 | SW002 72 | NO | NO | Project just started and getting SWPPP installed | YES | rick@kierconstructioncorp.com | 801-809-6760 | Rick Millward |
| 1/16/15 | 3 | Western Region Non-Profit Housing | 700 South 223 West | YES | | UTR367 631 | SW002 22 | | | | | | |
| 1/16/15 | 3 | Lumpy's Downtown | 145 Pierpont Ave. | YES | | SW002 76 | | | PROJECT IS UP TO CODE | | ala@spadex.net | 801-301-7669 | Aaron Bringhurst |
| 1/21/2015 | 1 | Macland subdivision PUD | 1570 W. 500 N. | yes-short | 1.168 | UTR365 593 | SW001 84 | yes | permits are expired I did talk to dave on the phone about the issue | yes | lovely23@yahoo.com | | |
| 1/21/2015 | 1 | West Station Apartments | Harold st.167 N. | yes | 3 | UTR367 353 | SW002 03 | NO | UP TO CODE | YES | smarston@pentalonconstruction.com | | |
| 1/21/2015 | 1 | SLC Regional Athletic Complex | 161 Regent St. | yes | 167 | UTR367 377 | SW002 14 | NO | Hughes has taken over project and is mobile with some aspect of project but renoylds is onsite | yes | jeremy@hughesgc.com | | |
| 1/21/2015 | 1 | Larkin Tree Farm | 2828 N 2200 W | yes | 6 | UTR364 491 | SW002 05 | No | State permit is expired | yes | brentl@jonesexcavating.com | | 385-226-6808 |
| 1/21/2015 | 1 | Barcode Labeling | 1955 Bending River Court | no | 1.36 | UTR | SW002 69 | NO | PROJECT HAS NOT STARTED | YES | | | |
| 1/21/15 | 3 | US Federal Courthouse | 350 So. main | yes | 1.2 | UTR319 916 | SW000 46 | No | current and up to code | YES | brian.peatross@okland.com | 801-870-1316 | Brian Peatross |
| 1/21/15 | 3 | American Cancer Society hope Lodge | | yes | 1.7 | UTR366 801 | SW001 87 | NO | CURRENT and up to code | YES | jimb@randoco.com | 801-430-6100 | Jim Bradley |
| 1/21/15 | 3 | Wall Mansion | So. Temple 411 E. | no | 0.8 | | | no | DEMO HAS STARTED | NO | | | |
| 1/22/2 | 1 | Chevron | 651 So. | NO | 0.6 | UTR | SW002 | NO | NO WORK | YES | | | |

| | | | | | | | | | | | | | | | | | |
|-----------|---|-------------------------------------|------------------------------------|-----|------|------------|------------|-----|----|----|--|-----|---|--------------|-----|-----------------|--------------|
| 015 | | Pipeline | Redwood Rd. | | | | | | | 67 | HAS STARTED | S | | | | | |
| 1/22/2015 | 2 | Columbus Court PUD | 47&65 E - Silverhawk | YES | 4 | UTR359 517 | SW002 37 | yes | no | | 47 E IS COMPLETE | yes | utahsbuilder3@gmail.com | | Yes | Jeff Allred | 801-631-9859 |
| 1/22/2015 | 2 | Marmalade Library | 500 North 300 West | YES | 1 | UTR368 037 | SW002 49 | NO | NO | | Minor housekeeping needed-track out | YES | kellyr@ascentconstruction.com | | | Kelly Rasmussen | 801-514-8371 |
| 1/26/2015 | 1 | Center Point #C | 1891 West 2100 South | yes | 6.47 | UTR368 463 | SW002 53 | | | | drive by NO WORK BEING DONE | YES | kdavis@sirg.com | 801-636-5587 | | Kevin Davis | |
| 1/26/2015 | 1 | Ace Intermain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367 119 | SW002 04 | | NO | | up to code | yes | spencer@midgleyconstruction.com | | | | |
| 1/27/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367 749 | SW002 26 | | NO | | Warning issued due to BMPS and SWPPP not updated | YES | smerrill@brubakerconstruction.com | | | | |
| 1/27/2015 | 1 | UTA Depot Service Center | 200 south 669 West | yes | 1.5 | UTR368 515 | SW002 55 | | NO | | in compliance | yes | kirkw@arnell-west.com | 801-499-3724 | | Kirk Walden | |
| 1/27/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | YES | | UTR369 769 | SW002 76 | | NO | | Warning issued due to BMPS | YES | jeremy@whitcon.com | 801-520-4227 | | Jeremy Cox | |
| 1/28/2015 | 1 | Varian Medical | 1700 South Pioneer | YES | | UTR368 657 | SW002 57 | | | | Up to code | YES | jsarten@jacobsenconstruction.com | 801-386-4754 | | James Sarten | |
| 1/28/2015 | 1 | Price Realty # 6&7 | 3505 west Ninigret Dr. | YES | | UTR367 981 | SW002 42 | | | | heavy tracking talked to Spencer about it | YES | spencer@midgleyconstruction.com | | | Spencer Robison | |
| 1/29/2015 | 1 | I-80 Logistics Project Building 1&2 | 350 North John Glenn | YES | 30 | UTR367 841 | SW00228-29 | | NO | | Project has started Big-D and SUNROC | YES | ocramm@big-d.com , riadams@sunroc.com | | | | |
| 1/29/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | NO | 1.5 | UTR367 749 | SW002 26 | | NO | | FOLLOW UP | YES | smerrill@brubakerconstruction.com | | | | |
| 1/29/2015 | 1 | UTA Depot Service | 200 south 669 West | NO | 1.5 | UTR368 515 | SW002 55 | | NO | | FOLLOW UP | yes | kirkw@arnell-west.com | 801-499-3724 | | Kirk Walden | |

| | | | | | | | | | | | | | | | | | | |
|-----------|---|-----------------------------------|------------------------------------|-----|--------|------------|----------|-------|--|--------------|--|--------------|--------------|--|--|-----|------------------------------|--|
| | | Center | | | | | | | | | | | | | | | | |
| 1/29/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | NO | | UTR369 769 | SW002 76 | NO | FOLLOW UP | YES | jeremy@whitcon.com | 801-520-4227 | Jeremy Cox | | | | | |
| 1/29/2015 | 1 | Costco | 5595 W. 300 S. | 5.2 | | | | | | | | | | | | | | |
| 1/29/2015 | 1 | 9th South Oxbow Phase II | 900 South 1100 West | no | | UTR368 235 | SW002 65 | | work has stopped until spring | YES | | | | | | | | |
| 2/4/2015 | 1 | Landmark building #12 | 2100 south 4800 West | yes | | UTR367 857 | SW002 58 | NO | PROJECT NEEDS TO RE-ESTABLISHED SILT FENCING | YES | spencer@midgleyconstruction.com | | | | | | | |
| 2/4/2015 | 1 | IDI Meridian Commercial Center #1 | 4325 West Commercial Way | yes | 12.3 3 | UTR366 691 | SW001 93 | NO | up to code and current on SWPPP | YES | jeremy@furstconstruction.com | 801-509-6490 | Jeremy Evans | | | | | |
| 02/04/15 | 4 | O.C. Tanner phase 2 | 1950 So. State St. | YES | 1.22 | UTR368 389 | SW002 52 | NO NO | UP TO CODE | yes | cturner@big-d.com | 801-430-0540 | | | | | Carl Turner-801-430-0540 | |
| 02/04/15 | 4 | Belmont Plaza | 200 east | yes | 1.07 | UTR365 959 | SW001 98 | no no | UP TO CODE | | nsimpson@landmarkexc.com | | | | | | Nate Hutchinson 801-473-9503 | |
| 02/04/15 | 4 | Taylor Gardnes | 1710 S West Temple | YES | 3.5 | UTR369 487 | SW002 68 | | UP TO CODE | 801-710-7117 | Ktanner@kier | | | | | | Kirk Tanner | |
| 02/05/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | YES | 2 | UTR363 289 | SW001 38 | no no | drive by due to storm | yes | thansen@pentalonconstruction.com | | no | | | | no | |
| 02/05/15 | 4 | Sugarhouse Plaza | 2100 S 1100 E | YES | >1 | | SW002 47 | NO NO | drive by due to storm | yes | tim@allstateconstruction.org | 801-706-4043 | yes | | | yes | Tim Maynes | |
| 02/06/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365 929 | SW001 58 | no no | drive by due to storm | yes | chad@rimrock.us | | yes | | | | yes | |
| 02/09/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | UTR365 645 | SW002 08 | NO NO | project is up to code | yes | menlovec@gmail.com | 801-671-4697 | | | | | Ken Menlove | |
| 02/09/15 | 4 | Industrial Supply | 1635 South 300 West | YES | 4.45 | UTR368 345 | SW002 51 | NO NO | Project is complete BMPS | | jessie.jacobsen@big-d.com | 801-430-0496 | | | | | Ruben Mendez 801-484- | |

| | | | | | | | | | | | | | | | | | | | |
|-----------|---|--|-----------------------|-----|------|------------|----------|-----|----|---|-------------------|--------------------------------|--------------------------------|-----|--|-----|-----|------------------------------|------|
| | | | | | | | | | | need to be removed | | | | | | | | | 8644 |
| 02/09/15 | 4 | Sugar House Park Hidden Grove Pavilion | Sugar House Park | YES | | | SW002 66 | NO | NO | PROJECT HAS STARTED AND IS UP TO CODE | 801 - 735 - 149 3 | duane@baileybuilders.com | | | | | | Duane Christensen | |
| 02/09/15 | 4 | Bergeson Residence | 2397 E. 1300 South | YES | 1 | | | NO | NO | SWPPP NOT ONSITE | yes | Ron Spackman 801-573-3094 | | | | | | | |
| 02/09/15 | 4 | Redbutte Creek Culvert Rehab | Harvard Ave 1300 East | YES | | | SW002 75 | NO | NO | Nobody onsite during SWPPP inspection | 801 - 491 - 889 8 | rick@wediutah.com | | | | | | Rick Zobell | |
| 2/10/2015 | 2 | Utah Metal Works | 1500 North 800 West | yes | 0.84 | | | no | no | sidewalk is being poored | | | | | | | | | |
| 2/10/2015 | 2 | Columbus Court PUD | 47&65 E - Silverhawk | yes | 4 | UTR359 517 | SW002 37 | yes | no | follow up inspection for SWPPP violations | yes | utahsbuilder3@gmail.com | | Yes | | | | Jeff Allred 801-631-9859 | |
| 2/10/2015 | 2 | Marmalde Library | 500 North 300 West | YES | 1 | UTR368 037 | SW002 49 | NO | NO | up to code | YES | kellyr@ascentconstruction.com | | | | | | Kelly Rasmussen 801-514-8371 | |
| 2/10/15 | 3 | Wall Mansion | So. Temple 411 E. | no | 0.8 | | | no | no | DEMO HAS STARTED | NO | | | | | | | | |
| 2/10/15 | 3 | State Street Plaza | 253 So State | yes | 1 | UTR362 001 | SW001 08 | No | No | UP TO CODE | Yes | easton@thelaportegroup.com | | Yes | | Yes | Yes | | |
| 2/10/15 | 3 | Utah Performing Arts | Main St. 113 south | yes | 2.57 | UTR365 965 | SW001 82 | NO | NO | current and up to date on SWPPP | yes | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | | | | | Logan Probst/ Brent Hansen | |
| 2/10/15 | 3 | 111 Main | 111 South Main st | yes | | UTR366 197 | | NO | NO | up to code and current | yes | steve.powell@okland.com | | | | | | 801-4401821 | |
| 2/10/15 | 3 | American Cancer Society hope Lodge | | yes | 1.7 | UTR366 801 | SW001 87 | NO | NO | CURRENT and up to code | YES | jimb@randoco.com | 801-430-6100 | | | | | Jim Bradley | |
| 2/10/15 | 3 | Wall Mansion | So. Temple 411 E. | no | 0.8 | | | no | no | DEMO HAS STARTED | NO | | | | | | | | |
| 02/10/15 | 4 | Enclave Apartments | 247 West 1400 South | YES | | UTR367 325 | SW002 39 | NO | NO | Up to code | YES | aday@netwasatch.com | 280-390-5211 | | | | | Anthony Day | |

| | | | | | | | | | | | | | |
|-----------|---|--------------------------------------|--------------------------|-----------|-------|-----------|---------|--------|---|-----|--|----------------|--|
| 2/12/2015 | 1 | Macland subdivision PUD | 1570 W. 500 N. | yes-short | 1.168 | UTR365593 | SW00184 | yes | permits are expired I did talk to dave on the phone about the issue | yes | lovemy23@yahoo.com | | |
| 2/12/2015 | 1 | Price Realty # 6&7 | 3505 west Ninigret Dr. | YES | | UTR367981 | SW00242 | | heavy tracking talked to Spencer about it | YES | spencer@midgleyconstruction.com | | Spencer Robison |
| 2/12/2015 | 1 | Cache Valley Electric | 3850 W California Ave | YES | | UTR369981 | | | Preconstruction meeting with Rusty/Tom Stuart | YES | | | Rusty |
| 2/12/2015 | | Sweets Candy | Directors Row 3780 West | YES | | UTR368851 | SW0259 | NO NO | UP TO CODE | YES | millgatee@yahoo.com, centerpnt@aol.com | Ernie Millgate | Ron Huffman -801-529-0616 / 801-330-5855 |
| 2/12/2015 | 1 | Barcode Labeling | 1955 Bending River Court | no | 1.36 | UTR | SW00269 | NO NO | BMPS where being installed no other work | YES | | | |
| 2/17/2015 | 1 | Chevron Pipeline | 651 So. Redwood Rd. | NO | 0.6 | UTR | SW00267 | NO NO | NO WORK HAS STARTED | YES | | | |
| 2/17/2015 | 1 | Center Point BLD #C | 1891 West 2100 South | yes | 6.47 | UTR368463 | SW00253 | | drive by NO WORK BEING DONE | YES | kdavis@sirg.com | 801-636-5587 | Kevin Davis |
| 2/17/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367119 | SW00204 | NO | up to code | yes | spencer@midgleyconstruction.com | | |
| 2/17/2015 | 1 | Bridges at Citifront | 49 N. 600 West. | yes | 5 | UTR108244 | SW00159 | N | project is complete SWPPP not updated | no | del@rimrock.us 8014503979 | | |
| 2/17/2015 | 1 | West Station Apartments | Harold st.167 N. | yes | 3 | UTR367353 | SW00203 | NO | UP TO CODE | YES | smarston@pentalonconstruction.com | | |
| 2/18/2015 | 1 | Bridges at Citifront | 49 N. 600 West. | yes | 5 | UTR108244 | SW00159 | YES | project is complete SWPPP not updated | no | del@rimrock.us 8014503979 | | |
| 02/18/15 | 4 | Sugarhouse Plaza | 2100 S 1100 E | YES | >1 | | SW00247 | YES NO | SCHEDULED A FINAL INSPECTION BUT PROJECT | yes | tim@allstateconstruction.org | 801-706-4043 | yes yes Tim Maynes |

| | | | | | | | | | | | | | | |
|-----------|---|-------------------------------------|------------------------------------|-------|------|------------|------------|----|--------------------------------------|--|---|--|--------------|-------------------------|
| | | | | | | | | | IS NOT COMPLETE | | | | | |
| 2/23/2015 | 1 | 9th South Oxbow Phase II | 900 South 1100 West | no | | UTR368 235 | SW002 65 | | work has stopped until spring | YES | | | | |
| 2/23/2015 | 1 | I-80 Logistics Project Building 1&2 | 350 North John Glenn | YES | 30 | UTR367 841 | SW00228-29 | NO | Project has started Big-D and SUNROC | YES | ocramm@big-d.com , riadams@sunroc.com | | | |
| 2/24/2015 | 1 | UTA Depot Distric Service Center | 200 south 669 West | yes | 1.5 | UTR368 515 | SW002 55 | NO | up to code | yes | kirkw@arnell-west.com | 801-499-3724 | Kirk Walden | |
| 2/24/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | yes | | UTR369 769 | SW002 76 | NO | uo to code | YES | jeremy@whitcon.com | 801-520-4227 | Jeremy Cox | |
| 2/24/15 | 3 | Arlington Park | 757 McClelland St | YES | | | SW002 40 | NO | NO | IN COMPLIANCE | | Jeff Bech /Mitch Spence | 801-550-8136 | Jeff Bech /Mitch Spence |
| 02/24/15 | 4 | Home 2 Suites-Foothill | 2350 South Foothill Dr. | YES | | UTR369 417 | SW002 73 | NO | NO | up to code | 801-707-4326 | wes@rimrock.us | 801-707-4326 | Wes Hogan |
| 02/24/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | YES | 2 | UTR363 289 | SW001 38 | no | no | drive by due deficient inspection report | yes | thansen@pentalonconstruction.com | | no no |
| 02/24/15 | 4 | Legacy Village at Sugarhouse | 1214 Wilmington Ave | short | 2.39 | UTR369 501 | SW002 71 | NO | NO | project has not started | | | | |
| 02/24/15 | 4 | Spring hill Suites | Highland Dr. | | | | | | | | | | | |
| 2/26/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367 749 | SW002 26 | | NO | up to code | YES | smerrill@brubakerconstruction.com | | |
| 2/26/15 | 3 | Encore Apartments | 352 South Denver St. | YES | 1.5 | UTR367 325 | | NO | NO | UP TO CODE | YES | mhenriksen@netwasatch.com | 702-429-9700 | Micheal Henriksen |
| 2/26/15 | 3 | Liberty Crest Apartment | 200 East 141 So. | YES | 1.2 | | SW002 72 | NO | NO | Project just started and getting | YES | rick@kierconstructioncorp.com | 801-809-6760 | Rick Millward |

| | | | | | | | | | | | | | | | | | | |
|-----------|---|-----------------------------------|-----------------------|-----|------|------------|----------|----|----|---|-----|-----------------|--|--|-----|-----|--|----------------------------|
| | | s | | | | | | | | SWPPP installed | | | | | | | | |
| 2/26/15 | 3 | Trolley Towns | 539 Denver st | yes | | UTR368 043 | SW002 41 | NO | NO | PROJECT IS UP TO CODE | | | benh@ivoryhomes.com | 801-520-9164 | | | | Ben Hanson |
| 2/26/15 | 3 | Western Region Non-Profit Housing | 700 South 223 West | YES | | UTR367 631 | SW002 22 | | | | | | | | | | | |
| 2/27/2015 | 1 | SLC Regional Athletic Complex | 161 Regent St. | yes | 167 | UTR367 377 | SW002 14 | | NO | project is up to code | yes | | jeremy@hughesgc.com | | | | | |
| 03/04/15 | 4 | Taylor Gardnes | 1710 S West Temple | YES | 3.5 | UTR369 487 | SW002 68 | | | UP TO CODE | | 801 - 710 - 711 | Ktanner@kier | | | | | Kirk Tanner |
| 03/04/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | YES | 2 | UTR363 289 | SW001 38 | no | no | drive by due to storm | yes | | thansen@pentalonconstruction.com | | no | no | | |
| 03/04/15 | 4 | Sugarhouse Plaza | 2100 S 1100 E | YES | >1 | | SW002 47 | NO | NO | drive by due to storm | yes | | tim@allstateconstruction.org | 801-706-4043 | yes | yes | | Tim Maynes |
| 03/04/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365 929 | SW001 58 | no | no | drive by due to storm | yes | | chad@rimrock.us | | yes | yes | | |
| 03/04/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | UTR365 645 | SW002 08 | NO | NO | project is up to code | yes | | menlovec@gmail.com | 801-671-4697 | | | | Ken Menlove |
| 03/04/15 | 4 | O.C. Tanner phase 2 | 1950 So. State St. | YES | 1.22 | UTR368 389 | SW002 52 | NO | NO | UP TO CODE | yes | | cturner@big-d.com | 801-430-0540 | | | | Carl Turner-801-430-0540 |
| 03/04/15 | 4 | Enclave Apartments | 247 West 1400 South | no | | UTR367 325 | SW002 39 | NO | NO | sweeper truck was out | YES | | aday@netwasatch.com | 280-390-5211 | | | | Anthony Day |
| 3/6/15 | 3 | Union Station-Marriott | 140 S. 300 West | yes | 3 | UTR362 345 | SW001 52 | No | No | up to code and current on SWPPP | yes | | duaine@rimrock.us ierskine@rimrock.us | | yes | yes | | |
| 3/9/15 | 3 | Utah Performing Arts | Main St. 113 south | yes | 2.57 | UTR365 965 | SW001 82 | NO | NO | some small amount of cement wash out on the ground had contractor clean | yes | | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | | | | Logan Probst/Brent Hanse n |
| 3/9/15 | 3 | 111 Main | 111 South Main st | yes | | UTR366 197 | | NO | NO | up to code and current | yes | | steve.powell@okland.com | | | | | 801-440182 |

| | | | | | | | | | | CODE | | | | | | | | | n |
|-----------|---|--------------------------------------|--------------------------|-----|-------|------------|----------|----|-----|--|-----------------|--|--|--|--|--|--|--|---------------------------------|
| 03/17/15 | 4 | Tracy Aviary-Vet Clinic | Liberty Park | YES | | | | | | UP TO CODE | 801 - 232 - 724 | | | | | | | | Ben Gustafson |
| 03/17/15 | 4 | Tracy Aviary-Rain Forest | Liberty Park | YES | | | | | | Project just started and up to code | | | | | | | | | Andrew Grey |
| 3/17/2015 | 4 | Liberty Lake Resteration | Liberty Park | yes | | | | | | NO WORK BEING DONE | 801 - 381 - 484 | | | | | | | | |
| 3/23/2015 | 1 | Center Point BLD #C | 1891 West 2100 South | yes | 6.47 | UTR368 463 | SW002 53 | | | drive by NO WORK BEING DONE | YES | | | | | | | | Kevin Davis |
| 3/23/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367 119 | SW002 04 | | | up to code | yes | | | | | | | | spencer@midgleyconstruction.com |
| 3/23/2015 | 1 | Varian Medical | 1700 South Pioneer | YES | | UTR368 657 | SW002 57 | | | Driveby gas lines where being installed | YES | | | | | | | | James Sarten |
| 3/23/2015 | 1 | Barcode Labeling | 1955 Bending River Court | no | 1.36 | UTR 69 | SW002 69 | NO | NO | PROJECT HAS STARTED | YES | | | | | | | | |
| 3/25/2015 | 1 | Landmark building #12 | 2100 south 4800 West | yes | | UTR367 857 | SW002 58 | | | PROJECT NEEDS TO RE-ESTABLISHED SILT FENCING | YES | | | | | | | | spencer@midgleyconstruction.com |
| 3/25/2015 | 1 | IDI Meridian Commercial Center #1 | 4325 West Commercial Way | yes | 12.33 | UTR366 691 | SW001 93 | | NO | up to code and current on SWPPP | YES | | | | | | | | Jeremy Evans |
| 3/25/2015 | 1 | Navajo Express | 5670 West | yes | | UTR367 091 | SW002 85 | | yes | Project is just starting BMPS are installed | yes | | | | | | | | Gary Thorn |
| 3/25/2015 | 1 | Price Realty # | 3505 west Ninigret | YES | | UTR367 981 | SW002 42 | | | heavy tracking | YES | | | | | | | | Spencer Robison |

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|-----------|---|-----------------------------------|------------------------------------|-------|------|-----------|---------|----|----|---|-------------|--|--------------|-----|--|-----|--|--------------------------|
| | | 6&7 | Dr. | | | | | | | talked to Spencer about it | | | | | | | | |
| 3/25/2015 | 1 | Cache Valley Electric | 3850 W California Ave | YES | | UTR369981 | | | | Preconstruction meeting with Rusty/Tom Stuart | YES | | | | | | | Rusty |
| 3/25/2015 | 1 | Costco | 5595 W. 300 S. | 5.2 | | | | | | NO WORK HAS STARTED | | | | | | | | |
| 3/26/2015 | 1 | UTA Depot District Service Center | 200 south 669 West | yes | 1.5 | UTR368515 | SW00255 | | NO | up to code | yes | kirkw@arnell-west.com | 801-499-3724 | | | | | Kirk Walden |
| 3/26/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | yes | | UTR369769 | SW00276 | | NO | uo to code | YES | jeremy@whitcon.com | 801-520-4227 | | | | | Jeremy Cox |
| 3/26/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367749 | SW00226 | | NO | up to code | YES | smerrill@brubakerconstruction.com | | | | | | |
| 3/26/2015 | 1 | West Station Apartments | Harold st.167 N. | yes | 3 | UTR367353 | SW00203 | | NO | UP TO CODE | YES | smarston@pentalonconstruction.com | | | | | | |
| 04/02/15 | 4 | Enclave Apartments | 247 West 1400 South | no | | UTR367325 | SW00239 | NO | NO | sweeper truck was out | YES | aday@netwasatch.com | 280-390-5211 | | | | | Anthony Day |
| 04/03/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365929 | SW00158 | no | no | drive by due to storm | yes | chad@rimrock.us | | yes | | yes | | |
| 04/03/15 | 4 | Legacy Village at Sugarhouse | 1214 Wilmington Ave | short | 2.39 | UTR369501 | SW00271 | NO | NO | project has not started | | | | | | | | |
| 04/03/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | YES | 2 | UTR363289 | SW00138 | no | no | drive by due to storm | yes | thansen@pentalonconstruction.com | | no | | no | | |
| 04/06/15 | 4 | O.C. Tanner phase 2 | 1950 So. State St. | YES | 1.22 | UTR368389 | SW00252 | NO | NO | UP TO CODE | yes | cturner@big-d.com | 801-430-0540 | | | | | Carl Turner-801-430-0540 |
| 04/06/15 | 4 | Tracy Aviary-Vet Clinic | Liberty Park | YES | | | SW00225 | NO | NO | UP TO CODE | 801-232-724 | bengusco@gmail.com | | | | | | Ben Gustafson |

| | | | | | | | | | | | | | | | | | |
|-----------|---|------------------------------------|------------------------------------|-----|------|-----------|---------|-----|----|---|-----|--|--|--|--|------------------------------------|-------------------------------|
| | | | | | | | | | | 6 | | | | | | | |
| 04/06/15 | 4 | Tracy Aviary-Rain Forest | Liberty Park | YES | | | SW00274 | NO | NO | Project just started and up to code | | agra@siq.com ANDREW | | | | Andrew Grey | |
| 04/06/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | UTR365645 | SW00208 | NO | NO | project is up to code | yes | menlove@gmail.com | 801-671-4697 | | | Ken Menlove | |
| 4/9/15 | 3 | Utah Performing Arts | Main St. 113 south | yes | 2.57 | UTR365965 | SW00182 | NO | NO | some small amount of cement wash out on the ground had contractor clean | yes | | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | | | Logan Probst/ Brent Hansen |
| 4/9/15 | 3 | 111 Main | 111 South Main st | yes | | UTR366197 | | NO | NO | up to code and current | yes | | steve.powell@okland.com | | | | 801-4401821 |
| 4/16/2015 | 2 | 400 West Apartments | 300 North 400 W. | YES | 1 | UTR370437 | SW00287 | NO | NO | up to code | YES | ttroutwine@netwasatch.com , kalldredge@netwasatch.com | | | | Todd troutwine/ Kenny Alldredge | |
| 4/16/15 | 3 | American Cancer Society hope Lodge | | yes | 1.7 | UTR366801 | SW00187 | NO | NO | CURRENT and up to code | YES | | jimb@randoco.com | 801-430-6100 | | | Jim Bradley |
| 4/16/15 | 3 | Liberty Crest Apartments | 200 East 141 So. | YES | 1.2 | | SW00272 | NO | NO | heavy tracking due to storm | YES | | rick@kierconstructioncorp.com | 801-809-6760 | | | Rick Millward |
| 4/17/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367749 | SW00226 | NO | | up to code | YES | smerrill@brubakerconstruction.com | | | | | |
| 4/17/2015 | 1 | UTA Depot Distric Service Center | 200 south 669 West | yes | 1.5 | UTR368515 | SW00255 | YES | NO | FINAL INSPECTION | yes | kirkw@arnell-west.com | 801-499-3724 | | | Kirk Walden | |
| 4/17/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | yes | | UTR369769 | SW00276 | | NO | uo to code | YES | jeremy@whitcon.com | 801-520-4227 | | | Jeremy Cox | |
| 4/21/2015 | 2 | Marmalde Library | 500 North 300 West | YES | 1 | UTR368037 | SW00249 | NO | NO | up to code | YES | kellyr@ascentconstruction.com | | | | Kelly Rasmussen | 801-514-8371 |
| 4/22/2015 | 1 | Landmark building #12 | 2100 south 4800 West | yes | | UTR367857 | SW00258 | | NO | PROJECT NEEDS TO RE-ESTABLISHED SILT FENCING | YES | spencer@midgleyconstruction.com | | | | | |
| 4/22/2015 | 1 | IDI | 4325 | yes | 12.3 | UTR366 | SW001 | | NO | up to code and current on | YES | jeremy@furstconstruction.com | 801-509-6490 | | | Jeremy Evans | |

| | | | | | | | | | | | | | | | | | |
|-----------|---|-------------------------------------|----------------------------|-----|-----|-----------|------------|----|-----|---|-----|---|--------------|--------------|-----------------|--------------|--|
| 015 | | Meridian Commercial Center #1 | West Commercial Way | | 3 | 691 | 93 | | | SWPPP | S | com | | | | | |
| 4/22/2015 | 1 | Ace Intermain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367119 | SW00204 | | NO | up to code | yes | spencer@midgleyconstruction.com | | | | | |
| 4/22/2015 | 1 | Varian Medical | 1700 South Pioneer | YES | | UTR368657 | SW00257 | | | Driveby gas lines where being installed | YES | jsarten@jacobsenconstruction.com | 801-386-4754 | | James Sarten | | |
| 4/22/2015 | 1 | Cache Valley Electric | 3850 W California Ave | YES | | UTR369981 | | NO | | UP TO CODE | | | | | Rusty | | |
| 4/22/2015 | 1 | Price Realty # 6&7 | 3505 west Ninigret Dr. | YES | | UTR367981 | SW00242 | | | UP TO CODE | YES | spencer@midgleyconstruction.com | | | Spencer Robison | | |
| 4/22/2015 | 1 | Box-N-Lock | 1785 W. Sequoia Vista Cir. | YES | 4.5 | UTR370271 | SW00 | NO | NO | heavy tracking talked to Stephen tripps over the phone about it | yes | | 801-301-7621 | | Stephen Tripps | | |
| 5/6/2015 | 1 | SLC Regional Athletic Complex | 161 Regent St. | yes | 167 | UTR367377 | SW00214 | | NO | project is up to code | yes | jeremy@hughesgc.com | | | | | |
| 5/6/2015 | 1 | I-80 Logistics Project Building 1&2 | 350 North John Glenn | YES | 30 | UTR367841 | SW00228-29 | | NO | Project has started Big-D and SUNROC | YES | ocramm@big-d.com , riadams@sunroc.com | | | | | |
| 5/6/2015 | 1 | Navajo Express | 5670 West | yes | | UTR367091 | SW00285 | | yes | Project is just starting BMPS are installed | yes | grthorn@hotmail.com | 801-548-3300 | | Gary Thorn | | |
| 5/6/2015 | 1 | West Station Apartments | Harold st.167 N. | yes | 3 | UTR367353 | SW00203 | | NO | UP TO CODE | YES | smarston@pentalonconstruction.com | | | | | |
| 5/6/2015 | 1 | Costco | 5595 W. 300 S. | 5.2 | | UTR370317 | SW00294 | | | NO WORK HAS STARTED | | gdaniels@robcon.com , gmackenzie@robcon.com | 503- | | | | |
| 5/7/2015 | 3 | 360 Apartments | 400 West 360 South | no | | UTR369987 | SW00279 | NO | NO | PROJECT IS UP TO CODE | | | Corey Jensen | 801-598-4458 | | Corey Jensen | |

| | | | | | | | | | | | | | | | | | | |
|-----------|---|------------------------------|--------------------------|-------|------|------------|-------------|-----|----|---|--------------|--|--|--|-----------|----------------|-------------------------------|--|
| 5/11/2015 | 4 | Highland High School | 2166 South 1700 east | YES | | UTR | SW002 96-97 | | | BASEBALL-AND BASEBALL FIELDS | | | | | | | | |
| 05/11/15 | 4 | Sugarhouse Plaza | 2100 S 1100 E | YES | >1 | | SW002 47 | YES | NO | FINAL INSPECTION PROJECT IS COMPLETE | yes | tim@allstateconstruction.org | 801-706-4043 | yes | yes | Tim Maynes | | |
| 05/12/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365 929 | SW001 58 | no | no | project is up to code | yes | chad@rimrock.us | | yes | yes | | | |
| 05/12/15 | 4 | Legacy Village at Sugarhouse | 1214 Wilmington Ave | short | 2.39 | UTR369 501 | SW002 71 | NO | NO | project is up to code | | john.carpenter@big-d.com | 801-680-9320 | | | John Carpenter | | |
| 05/13/15 | 4 | Home 2 Suites-Foothill | 2350 South Foothill Dr. | YES | | UTR369 417 | SW002 73 | NO | NO | up to code | 801-707-4326 | wes@rimrock.us | 801-707-4326 | | Wes Hogan | | | |
| 05/13/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | UTR365 645 | SW002 08 | NO | NO | project is up to code | yes | menlovec@gmail.com | 801-671-4697 | | | Ken Menlove | | |
| 05/13/15 | 4 | Enclave Apartments | 247 West 1400 South | YES | | UTR367 325 | SW002 39 | NO | NO | project is up to code | YES | aday@netwasatch.com | 280-390-5211 | | | Anthony Day | | |
| 5/13/2015 | 4 | Foothill Assisted Living | 2360 South Foothill blvd | YES | | UTR368 661 | SW002 88 | NO | NO | project is up to code | 801-815-2537 | bprice@sahara1.com | 801-815-2537 | | | Bill Price | | |
| 5/14/15 | 3 | Utah Performing Arts | Main St. 113 south | yes | 2.57 | UTR365 965 | SW001 82 | NO | NO | some small amount of cement wash out on the ground had contractor clean | yes | | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | | | Logan Probst/ Brent Hansen | |
| 5/14/15 | 3 | 111 Main | 111 South Main st | yes | | UTR366 197 | | NO | NO | up to code and current | yes | | steve.powell@okland.com | | | | 801-4401821 | |
| 5/14/15 | 3 | American Cancer Society hope | | yes | 1.7 | UTR366 801 | SW001 87 | NO | NO | CURRENT and up to code | YES | | jimb@randoco.com | 801-430-6100 | | | Jim Bradley | |

| | | | | | | | | | | | | | | | | | | |
|-----------|---|-----------------------------------|------------------------------------|-----|------|-----------|---------|----|----|-------------------------------------|-----|--|--|--------------|-----|--|--|------------------------------|
| | | Lodge | | | | | | | | | | | | | | | | |
| 5/14/15 | 3 | Liberty Crest Apartments | 200 East 141 So. | YES | 1.2 | UTR362001 | SW00272 | NO | NO | UP TO CODE | YES | rick@kierconstructioncorp.com | 801-809-6760 | | | | | Rick Millward |
| 5/14/15 | 3 | State Street Plaza | 253 So State | yes | 1 | UTR362001 | SW00108 | No | No | UP TO CODE | Yes | easton@thelaportegroup.com | Yes | Yes | Yes | | | |
| 05/14/15 | 4 | O.C. Tanner phase 2 | 1950 So. State St. | YES | 1.22 | UTR368389 | SW00252 | NO | NO | UP TO CODE | yes | cturner@big-d.com | 801-430-0540 | | | | | Carl Turner-801-430-0540 |
| 05/14/15 | 4 | Taylor Gardnes | 1710 S West Temple | YES | 3.5 | UTR369487 | SW00268 | | | UP TO CODE | 711 | Ktanner@kier | | | | | | Kirk Tanner |
| 05/14/15 | 4 | Tracy Aviary-Rain Forest | Liberty Park | YES | | | SW00274 | NO | NO | Project just started and up to code | | agray@sirg.com ANDREW | | | | | | Andrew Grey |
| 05/14/15 | 4 | Belmont Plaza | 200 east | yes | 1.07 | UTR365959 | SW00198 | no | no | UP TO CODE | | nsimpson@landmarkexc.com | | | | | | Nate Hutchinson 801-473-9503 |
| 5/15/15 | 3 | Encore Apartments | 352 South Denver St. | YES | 1.5 | UTR367325 | | NO | NO | UP TO CODE | YES | | mhenriksen@netwasatch.com | 702-429-9700 | | | | Micheal Henriksen |
| 5/15/15 | 3 | US Federal Courthouse | 350 So. main | yes | 1.2 | UTR319916 | SW00046 | No | no | current and up to code | YES | brian.peatross@okland.com | 801-870-1316 | | | | | Brian Peatross |
| 5/15/15 | 3 | Western Region Non-Profit Housing | 700 South 223 West | YES | | UTR367631 | SW00222 | | | PROJECT IS COMPLETE | | | | | | | | |
| 5/15/2015 | 4 | East High Football Field | 834 South 1300 East | YES | 2 | | SW00298 | NO | NO | HEAVY TRACKING | | | | | | | | Troy Roth |
| 5/18/2015 | 1 | UTA FL-12 Questar | 1120 W 200 s to 600 W to 400 South | yes | | UTR369769 | SW00276 | | NO | PROJECT IS COMPLETE | YES | jeremy@whitcon.com | 801-520-4227 | | | | | Jeremy Cox |
| 5/18/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367749 | SW00226 | | NO | up to code | YES | smerrill@brubakerconstruction.com | | | | | | |
| 5/18/2015 | 1 | Barcode Labeling | 1955 Bending | no | 1.36 | UTR | SW00269 | NO | NO | PROJECT HAS | YES | | | | | | | |

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|-----------|---|--------------------------------------|----------------------------|-----|------|-----------|---------|----|-----|---|-----|--|--|---|-----------------|--------------|
| | | | River Court | | | | | | | STARTED | | | | | | |
| 5/18/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367119 | SW00204 | | NO | up to code | yes | spencer@midgleyconstruction.com | | | | |
| 5/18/2015 | 1 | Varian Medical | 1700 South Pioneer | YES | | UTR368657 | SW00257 | | | Driveby gas lines where being installed | YES | jsarten@jacobsenconstruction.com | 801-386-4754 | James Sarten | | |
| 5/18/2015 | 1 | Box-N-Lock | 1785 W. Sequoia Vista Cir. | YES | 4.5 | UTR370271 | SW00299 | NO | NO | heavy tracking talked to Stephen tripps over the phone about it | yes | | 801-301-7621 | Stephen Tripps | | |
| 5/18/2015 | 1 | SLC Regional Athletic Complex | 161 Regent St. | yes | 167 | UTR367377 | SW00214 | | NO | project is up to code | yes | jeremy@hughesgc.com | | | | |
| 5/18/2015 | 1 | Pac-Landing | 1220 North 2200 West | YES | | UTR370273 | SW00286 | NO | NO | PROJECT IS UP TO CODE | YES | gbaker@emconstruction.com | 801-908-0604 | Greg Baker | | |
| 5/18/2015 | 1 | Center Point BLD #C | 1891 West 2100 South | yes | 6.47 | UTR368463 | SW00253 | | | talked with Kevin Davis to close out permit due to no activity for a few months | YES | kdavis@sirg.com | 801-636-5587 | Kevin Davis | | |
| 5/18/2015 | 2 | Marmalde Library | 500 North 300 West | YES | 1 | UTR368037 | SW00249 | NO | NO | Minor housekeeping needed-track out | YES | kellyr@ascentconstruction.com | | | Kelly Rasmussen | 801-514-8371 |
| 5/18/2015 | 2 | Utah Metal Works | 1500 North 800 West | yes | 0.84 | | SW00149 | no | YES | sidewalk is done terminating permit | | | | | | |
| 5/18/15 | 3 | Trolley Towns | 539 Denver st | yes | | UTR368043 | SW00241 | NO | NO | PROJECT IS COMPLETE | | | benh@ivoryhomes.com | 801-520-9164 | | Ben Hanson |
| 5/19/2015 | | Sweets Candy | Directors Row 3780 | YES | | UTR368851 | SW0259 | NO | NO | UP TO CODE | YES | millgatee@yahoo.com , centerpnt@aol.com | Ernie Millgate | Ron Huffman -801-529-0616 / 801-330-5855 | | |

| | | | | | | | | | | | | | | | | | | |
|-----------|---|--|--------------------------|-----|-------|-----------|------------|-----|-----|--|--------------|--|--------------|-------------------|--|------------------------------------|------------------------------------|--|
| | | | West | | | | | | | | | | | | | | | |
| 5/19/2015 | 1 | Landmark building #12 | 2100 south 4800 West | yes | | UTR367857 | SW00258 | | NO | PROJECT NEEDS TO RE-ESTABLISHED SILT FENCING | YES | spencer@midgleyconstruction.com | | | | | | |
| 5/19/2015 | 1 | IDI Meridian Commercial Center #1 | 4325 West Commercial Way | yes | 12.33 | UTR366691 | SW00193 | YES | YES | PROJECT IS COMPLETE SWPPP | YES | jeremy@furstconstruction.com | 801-509-6490 | Jeremy Evans | | | | |
| 5/19/2015 | 1 | Cache Valley Electric | 3850 W California Ave | YES | | UTR369981 | | | NO | UP TO CODE | | | | Rusty | | | | |
| 5/19/2015 | 1 | Price Realty # 6&7 | 3505 west Ninigret Dr. | YES | | UTR367981 | SW00242 | | | UP TO CODE | YES | spencer@midgleyconstruction.com | | Spencer Robison | | | | |
| 5/20/2015 | 2 | 400 West Apartments | 300 North 400 W. | YES | 1 | UTR370437 | SW00287 | NO | NO | up to code | YES | ttroutwine@netwasatch.com , kalldredge@netwasatch.com | | | | | Todd troutwine/ Kenny Alldredge | |
| 5/20/2015 | 2 | West Football Field | 255 North 300 West | YES | | UTR370721 | SW00300 | | | Project has started replacing turff | | todd.plaga@slcschools.org | | | | Todd Plaga | 801-647-7843 | |
| 05/20/15 | 4 | Sugar House Park Hidden Grove Pavilion | Sugar House Park | YES | | | SW00266 | NO | NO | PROJECT HAS STARTED AND IS UP TO CODE | 801-735-1493 | duane@baileybuilders.com | | Duane Christensen | | | | |
| 05/20/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | YES | 2 | UTR363289 | SW00138 | no | no | Project is complete NEED A NOT | yes | thansen@pentalonconstruction.com | no | no | | | | |
| 5/21/2015 | 1 | I-80 Logistics Project Building 1&2 | 350 North John Glenn | YES | 30 | UTR367841 | SW00228-29 | | NO | PROJECT IS UP TO CODE | YES | ocramm@big-d.com , riadams@sunroc.com | | | | | | |
| 5/29/2015 | 2 | Marmalde Library | 500 North 300 West | no | 1 | UTR368037 | SW00249 | NO | NO | DRIVEBY | YES | kellyr@ascentconstruction.com | | | | Kelly Rasmussen | 801-514-8371 | |
| 5/29/2015 | 2 | 400 West Apartments | 300 North 400 W. | no | 1 | UTR370437 | SW00287 | NO | NO | DRIVEBY | YES | ttroutwine@netwasatch.com , kalldredge@netwasatch.com | | | | Todd troutwine/ Kenny Alldredge | | |
| 5/29/2015 | 2 | West Football Field | 255 North 300 West | NO | | UTR370721 | SW00300 | | | DRIVEBY | | todd.plaga@slcschools.org | | | | Todd Plaga | 801-647-7843 | |

Appendix IV – INSPECTION DATA | 2015

| | | | | | | | | | | | | | | | | |
|-----------|---|-----------------------------------|--------------------------|-----|------|-----------|------------|----|----|--|--------------|-----------------------------------|------------------|--------------|--|----------------|
| 05/29/15 | 4 | Enclave Apartments | 247 West 1400 South | no | | UTR367325 | SW00239 | NO | NO | DRIVEBY FOLLOW UP | YES | aday@netwasatch.com | 280-390-5211 | | | Anthony Day |
| 5/29/2015 | 4 | 1300 South Viaduct reconstruction | 1300 South 700 West | NO | | | | | | | | | | | | |
| 06/01/15 | 4 | Element 31 Apartments | 3130 S. 1243 East | YES | | UTR365929 | SW00158 | no | no | project is up to code | yes | chad@rimrock.us | | yes | | yes |
| 06/01/15 | 4 | Legacy Village at Sugarhouse | 1214 Wilmington Ave | YES | 2.39 | UTR369501 | SW00271 | NO | NO | project is up to code | | john.carpenter@big-d.com | 801-680-9320 | | | John Carpenter |
| 06/01/15 | 4 | Home 2 Suites-Foothill | 2350 South Foothill Dr. | YES | | UTR369417 | SW00273 | NO | NO | up to code | 801-707-4326 | wes@rimrock.us | 801-707-4326 | | | Wes Hogan |
| 6/1/2015 | 4 | Highland High School | 2166 South 1700 east | YES | | UTR370685 | SW00296-97 | | | BASEBALL -AND BASEBALL FIELDS | 801-592-8440 | vanceb@kennyseng.com | | | | Vance |
| 6/1/2015 | 4 | Foothill Assisted Living | 2360 South Foothill blvd | YES | | UTR368661 | SW00288 | NO | NO | project is up to code | 801-815-2537 | bprice@sahara1.com | 801-815-2537 | | | Bill Price |
| 06/01/15 | 4 | Spring hill Suites | Highland Dr. | | | | | | | project is not active no work being done | | | | | | |
| 06/01/15 | 4 | Wilmington Gardens | 1215 E Wilmington Ave | NO | 2 | UTR363289 | SW00138 | no | no | Project is complete NEED A NOT | yes | thansen@pentalonconstruction.com | | no | | no |
| 6/2/2015 | 1 | UTA Fuel and Fare | 400 south 669 West | yes | 1.5 | UTR367749 | SW00226 | | NO | Cement washout down gutter did make it into State's Drain/ IDDE-A NOV WILL BE ISSUED | YES | smerrill@brubakerconstruction.com | | | | |
| 6/2/15 | 3 | American Cancer | | NO | 1.7 | UTR366801 | SW00187 | NO | NO | Project is almost complete waiting for a | YES | | jimb@randoco.com | 801-430-6100 | | Jim Bradle |

| | | | | | | | | | | | | | | | | | | | |
|----------|---|--------------------------|----------------------|-----|------|-----------|---------|----|----|---|--------------|--|--|------------|-----|------------------------------|-------------------------------|--|---|
| | | Society hope Lodge | | | | | | | | NOT | | | | | | | | | y |
| 6/2/15 | 3 | State Street Plaza | 253 So State | NO | 1 | UTR362001 | SW00108 | No | No | NO WORK BEING DONE | Yes | easton@thelaportegroup.com | Yes | Yes | Yes | | | | |
| 06/02/15 | 4 | Enclave Apartments | 247 West 1400 South | YES | | UTR367325 | SW00239 | NO | NO | project is up to code | YES | aday@netwasatch.com | 280-390-5211 | | | | Anthony Day | | |
| 06/02/15 | 4 | The Front Climbing Gym | 1460 SO. 400 W. | YES | | UTR365645 | SW00208 | NO | NO | project is up to code | yes | menlovec@gmail.com | 801-671-4697 | | | | Ken Menlove | | |
| 06/02/15 | 4 | O.C. Tanner phase 2 | 1950 So. State St. | YES | 1.22 | UTR368389 | SW00252 | NO | NO | UP TO CODE | yes | cturner@big-d.com | 801-430-0540 | | | | Carl Turner-801-430-0540 | | |
| 6/3/2015 | 1 | Pac-Landing | 1220 North 2200 West | YES | | UTR370273 | SW00286 | NO | NO | tracking and a complaint | YES | gbaker@emconstruction.com | 801-908-0604 | Greg Baker | | | | | |
| 6/4/15 | 3 | Liberty Crest Apartments | 200 East 141 So. | YES | 1.2 | | SW00272 | NO | NO | UP TO CODE | YES | rick@kierconstructioncorp.com | 801-809-6760 | | | | Rick Millward | | |
| 6/4/15 | 3 | Utah Performing Arts | Main St. 113 south | yes | 2.57 | UTR365965 | SW00182 | NO | NO | some small amount of cement wash out on the ground had contractor clean | yes | lprobst@laytonconstruction.com | bhansen@laytonconstruction.com | | | | Logan Probst/ Brent Hansen | | |
| 6/4/15 | 3 | 111 Main | 111 South Main st | yes | | UTR366197 | | NO | NO | up to code and current | yes | steve.powell@okland.com | | | | | 801-4401821 | | |
| 06/04/15 | 4 | Taylor Gardnes | 1710 S West Temple | YES | 3.5 | UTR369487 | SW00268 | | | UP TO CODE | 801-710-7117 | Ktanner@kier | | | | Kirk Tanner | | | |
| 06/04/15 | 4 | Belmont Plaza | 200 east | yes | 1.07 | UTR365959 | SW00198 | no | no | UP TO CODE | | nsimpson@landmarkexc.com | | | | Nate Hutchinson 801-473-9503 | | | |
| 06/04/15 | 4 | Tracy Aviary-Rain Forest | Liberty Park | YES | | | SW00274 | NO | NO | Project just started and up to code | | agra@siq.com ANDREW | | | | Andrew Grey | | | |
| 6/5/15 | 3 | US Federal Courthouse | 350 So. main | yes | 1.2 | UTR319916 | SW00046 | No | no | current and up to code | YES | brian.peatross@okland.com | 801-870-1316 | | | | Brian Peatross | | |
| 6/8/20 | 1 | SLC | 161 | yes | 167 | UTR367 | SW002 | | NO | project is up to code | yes | jeremy@hughesgc.com | | | | | | | |

| | | | | | | | | | | | | | | | | | |
|-----------|---|--------------------------------------|--------------------------|-----|------|-----------|---------|----|----|--|-----|--|--|--------------|--|-----------------|--------------|
| 15 | | Regional Athletic Complex | Regent St. | | | 377 | 14 | | | | | | | | | | |
| 6/8/2015 | 1 | Pac-Landing | 1220 North 2200 West | YES | | UTR370273 | SW00286 | NO | NO | HEAVY TRACKING ISSUED A WARNING | YES | gbaker@emconstruction.com | 801-908-0604 | Greg Baker | | | |
| 6/8/2015 | 1 | West Station Apartments | Harold st.167 N. | yes | 3 | UTR367353 | SW00203 | | NO | UP TO CODE | YES | smarston@pentalonconstruction.com | | | | | |
| 6/8/2015 | 2 | West Football Field | 255 North 300 West | YES | | UTR370721 | SW00300 | | | up to code | | todd.plaga@slcschools.org | | | | Todd Plaga | 801-647-7843 |
| 6/8/2015 | 3 | 360 Apartments | 400 West 360 South | no | | | SW00279 | | | | | | 801-598-4458 | | | | Corey Jensen |
| 6/9/2015 | 2 | Marmalade Library | 500 North 300 West | yes | 1 | UTR368037 | SW00249 | NO | NO | up to code | YES | kellyr@ascentconstruction.com | | | | Kelly Rasmussen | 801-514-8371 |
| 6/9/2015 | 2 | Alta Gateway Apartments | 300 South 500 West | NO | 3 | UTR370099 | | | | NO WORK BEING DONE | | | | | | Larry Henkels | 801-871-6600 |
| 6/9/15 | 3 | American Cancer Society hope Lodge | | yes | 1.7 | UTR366801 | SW00187 | NO | NO | CURRENT and up to code | YES | | jimb@randoco.com | 801-430-6100 | | | Jim Bradley |
| 6/9/2015 | 3 | Steiner House | Tomahawk Dr 1590 E. | YES | 0.75 | | SW00283 | | | PROJECT IS UNDER A ACRE-short inspection | | | | 801-450-7209 | | | Dean Caso |
| 6/9/2015 | 3 | Talobe House | 1515 E Federal Point Dr. | YES | 1 | | SW00262 | | | BMP'S INSTALLED- short inspection | | | | | | | |
| 6/10/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367119 | SW00204 | | NO | up to code | yes | spencer@middleyconstruction.com | | | | | |
| 6/10/2015 | 1 | Varian Medical | 1700 South Pioneer | YES | | UTR368657 | SW00257 | | | Driveby gas lines where being installed | YES | jsarten@jacobsenconstruction.com | 801-386-4754 | James Sarten | | | |

| | | | | | | | | | | | | | | | | |
|-----------|---|--------------------------------------|----------------------------|-----|------|-----------|------------|----|----|---|-----|--|--------------|-----------------|------------------------------------|--------------|
| 6/10/2015 | 1 | Box-N-Lock | 1785 W. Sequoia Vista Cir. | YES | 4.5 | UTR370271 | SW00299 | NO | NO | heavy tracking talked to Stephen tripps over the phone about it | yes | | 801-301-7621 | Stephen Tripps | | |
| 6/10/2015 | 1 | Center Point BLD #C | 1891 West 2100 South | yes | 6.47 | UTR368463 | SW00253 | | | NO WORK HAS STARTED | YES | kdavis@sirg.com | 801-636-5587 | Kevin Davis | | |
| 6/10/2015 | 1 | Price Realty # 6&7 | 3505 west Ninigret Dr. | YES | | UTR367981 | SW00242 | | | UP TO CODE | YES | spencer@midgleyconstruction.com | | Spencer Robison | | |
| 6/11/2015 | 1 | I-80 Logistics Project Building 1&2 | 350 North John Glenn | YES | 30 | UTR367841 | SW00228-29 | | NO | up to code | YES | ocramm@big-d.com , riadams@sunroc.com | | | | |
| 6/11/2015 | 2 | 400 West Apartments | 300 North 400 W. | YES | 1 | UTR370437 | SW00287 | NO | NO | up to code | YES | ttroutwine@netwasatch.com , kaldredge@netwasatch.com | | | Todd troutwine/ Kenny Alldredge | |
| 6/12/2015 | 2 | West Football Field | 255 North 300 West | no | | UTR370721 | SW00300 | | | Meet with Todd Plaga about drainage tie in | | todd.plaga@slcschools.org | | Todd Plaga | 801-647-7843 | |
| 6/15/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | yes | 6 | UTR367119 | SW00204 | | NO | spencer sent a (NOT) in so went and did a onsite visit, some landscape is still being installed | yes | spencer@midgleyconstruction.com | | | | |
| 6/15/2015 | 1 | Barcode Labeling | 1955 Bending River Court | no | 1.36 | UTR | SW00269 | NO | NO | Project is up to code, building is up and final grading is being done | YES | | | John Monsen | | |
| 6/15/2015 | 2 | West Football Field | 255 North 300 West | no | | UTR370721 | SW00300 | | | Meet with Todd Plaga about drainage tie in/PROJECT IS UP TO CODE | | todd.plaga@slcschools.org | | | Todd Plaga | 801-647-7843 |
| 6/15/1 | 3 | State | 253 So | yes | 1 | UTR362 | SW001 | No | No | PROJECT HAS STOPPED FOR | Yes | easton@thelaportegro | Yes | Yes | Yes | |

| | | | | | | | | | | | | | | | | | |
|-----------|---|--------------------------------------|-------------------------|-----------|-------|-----------|---------|----|-----|---|-----|--|--|--|--|---|-------------------|
| 5 | | Street Plaza | State | | | 001 | 08 | | | AWHILE DUE TO STRUCTIOR ISSUES | | | up.com | | | | |
| 6/15/15 | 3 | Encore Apartments | 352 South Denver St. | YES | 1.5 | UTR367325 | | NO | NO | UP TO CODE | YES | | mhenriksen@netwasatch.com | 702-429-9700 | | M | Michael Henriksen |
| 6/15/2015 | 4 | 1700 South Project | State Street-700 East | NO | | | | | | Project has just starting and mobilizing at 500 East | | | | | | | |
| 6/16/2015 | | Sweets Candy | Directors Row 3780 West | YES | | UTR368851 | SW0259 | NO | NO | SILT FENCING NEEDED ATTENTION | YES | millgatee@yahoo.com , centerpnt@aol.com | Ernie Millgate | Ron Huffman -801-529-0616 / 801-330-5855 | | | |
| 6/16/2015 | 1 | Landmark building #12 | 2100 south 4800 West | yes | | UTR367857 | SW00258 | | NO | UP TO CODE 90 PERCENT COMPLETE | YES | spencer@midgleyconstruction.com | | | | | |
| 6/16/2015 | 1 | Cache Valley Electric | 3850 W California Ave | YES | | UTR369981 | | NO | | UP TO CODE | | | | | | | Rusty |
| 6/16/2015 | 1 | Costco | 5595 W. 300 S. | 5.2 | | UTR370317 | SW00294 | | | UP TO CODE | | gdaniels@robcon.com , gmackenzie@robcon.com | 503- | | | | |
| 6/16/2015 | 1 | Navajo Express | 5670 West | yes | | UTR367091 | SW00285 | | yes | NO WORK WAS BEING DONE | yes | grthorn@hotmail.com | 801-548-3300 | | | | Gary Thorn |
| 6/16/2015 | 1 | Macland subdivision PUD | 1570 W. 500 N. | yes-short | 1.168 | UTR365593 | SW00184 | | yes | NO WORK BEING DONE PROJECT HAS STALLED | yes | lovemy23@yahoo.com | | | | | |
| 6/25/2015 | 1 | Ace Intermountain Recycling Facility | 1240 south Wallace RD | NOT | 6 | UTR367119 | SW00204 | | NO | NOT-Project is complete | yes | spencer@midgleyconstruction.com | | | | | |
| 6/25/2015 | 4 | Costco Expansion | 300 West 1730 South | YES | | UTR371421 | SW00305 | | | Project is just starting and we went over SWPPP requirement | | | | | | | Scott Lyle |

SALT LAKE CITY

MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)

UPDES PERMIT UTS000002

DRAFT



STORM WATER MANAGEMENT PLAN

2015

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LIST OF ACRONYMS

| | |
|-------------|--|
| 2015 Permit | 2015 Utah Pollutant Discharge Elimination System Permit for Discharge from Salt Lake City's Separate Storm Sewer System Permit Number UT000002 |
| BMP | Best Management Practice |
| CED | Community and Economic Development |
| CFR | Code of Federal Regulations |
| Cfs/acre | Cubic feet per second per acre |
| City | Salt Lake City |
| CIUQ | Commercial/Industrial User Questionnaires |
| CPD | Common Plan of Development |
| DEQ | Utah Department of Environmental Quality |
| DWQ | Utah Division of Water Quality |
| EPA | Environmental Protection Agency |
| ERC | Salt Lake City Event Review Committee |
| FTE | full time equivalent |
| GI | green infrastructure |
| GIS | global information system |
| HHW | household hazardous waste |
| IDDE | Illicit Discharge Detection and Elimination |
| JRWC | Jordan River Watershed Council |
| LID | Low Impact Design |
| MEP | Maximum Extent Practicable |
| MOU | Memorandum of Understanding |
| MS4 | Municipal Separate Storm Sewer System |
| MSGP | UPDES Multi-Sector General Permit |
| NAICS | North American Industrial Code System |
| NOI | Notice of Intent |
| NOT | Notice of Termination |
| O&M | operation and maintenance |
| POTW | publically owned treatment works |
| PUAC | Public Utilities Advisory Committee |
| RSI | Registered Storm Water Inspectors |
| SHPO | State Historic Preservation Office |
| SIC | Standard Industrial Classification |
| SLCoHD | Salt Lake County Health Department |
| SLCDPU | Salt Lake City Department of Public Utilities |
| SSID | Storm Sewer Industrial Discharge |

SALT LAKE CITY STORM WATER MANAGEMENT PLAN
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LIST OF ACRONYMS (continued)

| | |
|-----------------------|---|
| State | State of Utah |
| Storm Water Coalition | Salt Lake County Storm Water Coalition |
| SOP | Standard Operating Procedure |
| SWMP | Storm water Management Plan |
| SWPPP | Storm water Pollution Prevention Plan |
| TMDL | Total Maximum Daily Load |
| UAC | Utah Administrative Code |
| UDOT | Utah Department of Transportation |
| UPDES | Utah Pollutant Discharge Elimination System |
| USWAC | Utah Storm water Advisory Committee |

DRAFT

CERTIFICATION

In accordance with Section 6.8 of the 2015 Utah Pollutant Discharge Elimination System (UPDES) Permit for Discharge from Salt Lake City’s Separate Storm Sewer System (MS4) Permit Number UT000002 (hereafter referred to as the 2015 Permit), the following statement has been incorporated and signed in this document:

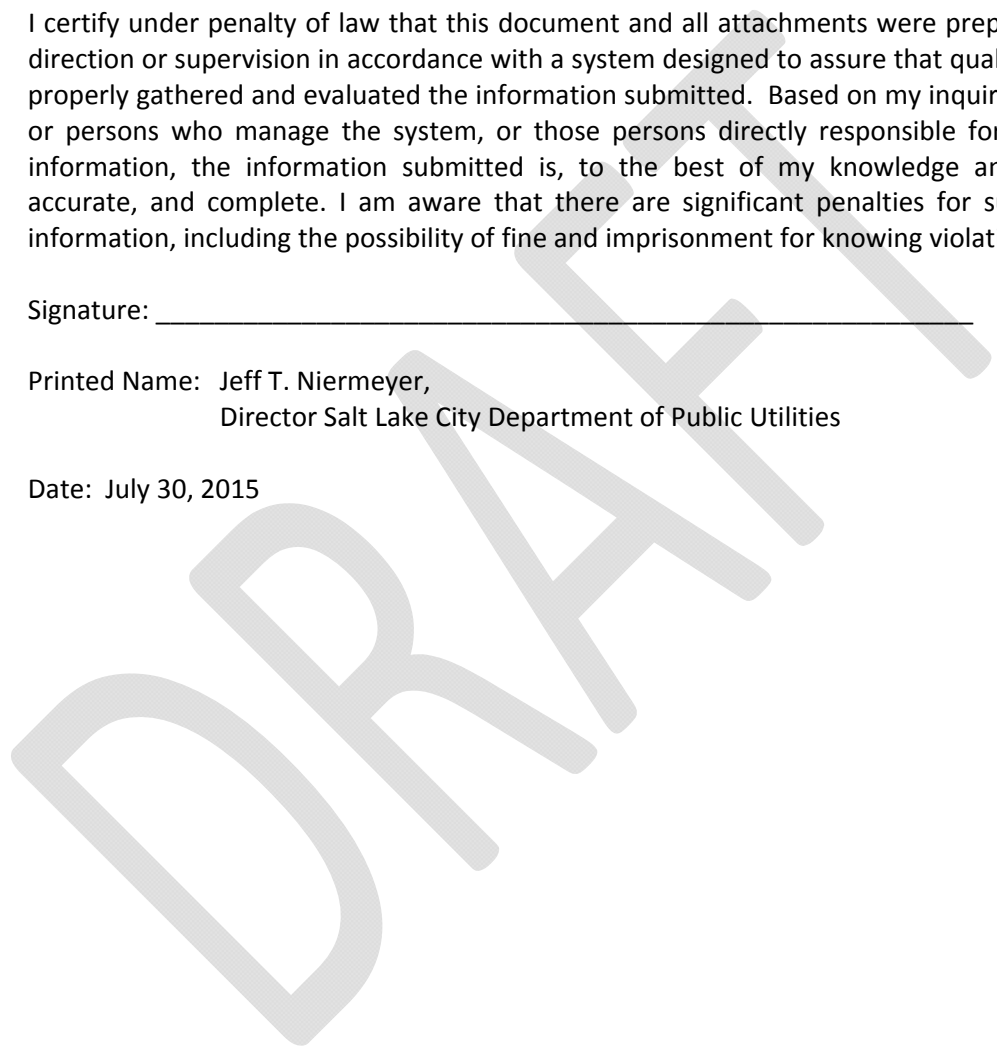
Certification Statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Printed Name: Jeff T. Niermeyer,
Director Salt Lake City Department of Public Utilities

Date: July 30, 2015



1.0 STORM WATER MANAGEMENT PLAN INTRODUCTION

Salt Lake City (City) is the largest metropolitan area within the Salt Lake Valley. The City has a population in excess of 186,440 and encompasses approximately 110 square miles within the lower Jordan River Basin (**Figure 1**). The valley is a terminal valley that drains to Great Salt Lake. The Jordan River is the main conveyance system in the valley and flows from Utah Lake to the Great Salt Lake. The Salt Lake City storm water system consists of a system of local municipal drainage pipes and open channel drainage facilities that discharge to a larger citywide system of pipes, open channels, canals or natural channels. Storm water quality and flood control are managed by the Storm Water Maintenance and Storm Water Quality Programs of Salt Lake City Department of Public Utilities (SLCDPU).

The City's Storm Water Management Plan (SWMP) was developed to comply with the 2015 Municipal Separate Storm Sewer System (MS4) Utah Pollutant Discharge Elimination System (UPDES) Permit UTS000002 (hereafter referred to as the 2015 Permit) permit, in accordance with the Federal Clean Water Act 402 (p)(3)(B) and State Storm Water Regulations (UAC R317-8-3.8), and is designed to reduce the discharge of pollutants to the maximum extent practicable (MEP) from the municipal storm drain system servicing Salt Lake City. The development, implementation and enforcement of the SWMP will include best management practices (BMPs), control techniques, system design and engineering methods, an education component, recordkeeping and documentation, and other provisions appropriate for the control of pollutants.

Salt Lake City received an original MS4 UPDES Permit (UTS000002) to discharge municipal storm water, effective September 1, 1995. The MS4 UPDES Permit was issued by the Utah Department of Environmental Quality (DEQ), Division of Water Quality (DWQ), after the City submitted a Part 1 and Part 2 UPDES Permit Application for discharges from municipal storm sewer systems, in accordance with 40 *Code of Federal Regulations* (CFR), Section 122. In response to the original permit, the City submitted its first SWMP on June 1, 1998. A review and update of the SWMP and BMPs are completed annually as part of the Annual Report.

The City received its second UPDES permit on June 1, 2001; it was renewed on June 1, 2006. The original SWMP has gone through review and revision as necessary to meet new permit requirements. On February 1, 2015, the 2015 Permit was issued to Salt Lake City. The 2015 Permit requires that the City submit a Draft revision of Salt Lake City's SWMP within 180 days of the effective date of the permit.

A part of Salt Lake City's Storm Water Quality Program is the elimination of storm water pollution at the sources of the pollution. The SWMP will incorporate pollution prevention strategies such that the reduction in pollution is real and is not just transferred to another media such as the sanitary sewer or solid waste. The City's Publicly Owned Treatment Works (POTW) has an active pretreatment program that is administered under separate permit with the DWQ. The Storm Water Quality and Pretreatment

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Programs work in partnership with local industry, business, residents, and governmental agencies to reduce storm water pollution. Salt Lake City's program is intended to be flexible and employ methods that will be relatively easy to incorporate new methods and procedures for controlling storm water pollution.

1.1 SWMP PROGRAM ADMINISTRATION

The SLCDPU is responsible for the overall implementation of the SWMP. Other City Departments assist in this implementation as appropriate. Program Administration is further detailed in Section 1.4 (Staffing and Resource Allocation) and illustrated in the Storm Water Program Administration Chart in **Figure 2**. The responsible parties are as follows:

Agency: Salt Lake City Department of Public Utilities

Contact: Mr. Jesse Stewart, Water Quality and Treatment Administrator, (801) 483-6864
Mr. Greg Archuleta, Storm Water Program Manager, (801) 483-6640

1.2 PURPOSE

The City's SWMP addresses the six minimum control measures as specified in the 2015 Permit (listed below) and outlines tasks for completion over the next five years.

- Public Education and Outreach,
- Public Involvement/Participation,
- Illicit Discharge Detection and Elimination,
- Construction Site Storm Water Runoff,
- Long-term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management), Cityworks®
- and
- Pollution Prevention and Good Housekeeping for Municipal Operations.

In addition, the SWMP also addresses administration of:

- Industrial and High Risk Runoff and
- Monitoring, Recordkeeping and Reporting.

1.3 SWMP REVIEW AND MODIFICATION

An annual review of this SWMP will be conducted in conjunction with the required Annual Storm Water Report; any changes or modifications will be submitted to the DWQ in accordance with Part 4.5 of the 2015 Permit. This review will include the following:

- A review of the status of program implementation and permit compliance.
- A review of any revision or change of BMPs during the year and an assessment of the effectiveness of such revision. The DWQ will be notified in writing of any changes to the

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implementation of BMPs. This notification will include the rationale supporting the modification in accordance with Part 4.5 of the 2015 permit.

- An overall assessment of the goals and direction of the SWMP and effectiveness of BMPs.
- A review of monitoring data, any changes in monitoring methods and parameters, and an assessment of the overall monitoring program.

1.4 STAFFING AND RESOURCE ALLOCATIONS

The SLCDPU Storm Water Utility has been established as a separate enterprise fund of Salt Lake City. The Storm Water Utility is directly responsible for operation and maintenance (O&M) of the Salt Lake City storm drainage system, the Storm Water Quality Program, and related activities. The Storm Water Quality Program oversees the SWMP and implementation of the 2015 Permit. The Storm Water Quality Program includes three full-time equivalent (FTE) employees and utilizes other personnel from the SLCDPU Water Quality Division. In addition, other Divisions of SLCDPU and other City Departments have staff [e.g., Registered Storm Water Inspectors (RSI)] that assist the Storm Water Quality Program as necessary. For example, the Storm Water Maintenance Program has 12 FTEs dedicated to storm water maintenance. In addition, departments such as Parks, Sanitation, Fleet, Streets, Fire, Golf, and other divisions within SLCDPU will be responsible for their portions of the O & M program and will be responsible for tasks regarding their respective facilities and operations. Tasks may include routine inspections of “high priority” municipal facilities, routine maintenance, implementing BMPs, street sweeping, curbside recycling, and waste collection. The City also utilizes the services of private contractors to implement portions of the Storm Water Program, including technical assistance, emergency response and/or hazardous clean up, and mitigation.

Public Education and Outreach. Public Education and Outreach is conducted in large part by the Salt Lake County Storm Water Coalition (Storm Water Coalition); Salt Lake City is an active member of the Storm Water Coalition. The Storm Water Coalition (detailed in Section 3.0) is funded by its members, as well as the Utah Department of Transportation (UDOT). In addition, Davis and Weber Counties contribute funding to the media portion of the Storm Water Coalition. The Storm Water Coalition is responsible for developing and distributing education materials regarding storm water and is an integral part of the City’s Public Education and Outreach program. However, the Salt Lake City Storm Water Quality Program is responsible for public education and outreach in the City and has incorporated other opportunities in the program. For example, the City has implemented a City-wide environmental education program through the Tracy Aviary that is aimed at increasing the public’s knowledge of environmental concerns, including storm water. The SLCDPU storm water utility funds much of the program. Funding for this program comes from the Storm Water Utility Fund.

Public Involvement and Participation. Public Involvement and Participation is conducted by the Storm Water Quality Program and other City Departments in accordance with the SLCgreen Program; an initiative comprised of environmental programs that continue to help the City conserve resources, reduce pollution, and ensure a healthy, sustainable future for Salt Lake City. City programs include:

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neighborhood cleanup events, curbside recycling, and the tan can program, which are all implemented by the Salt Lake City Sanitation Department. The Storm Water Utility funds a portion of these programs. Household hazardous waste events are also held throughout the city and funded by the Salt Lake County Health Department (SLCoHD). Funding for this program comes from the Storm Water Utility Fund.

Illicit Discharge Detection and Elimination. Illicit Discharge Detection and Elimination is implemented by the Storm Water Quality Program and multiple other entities and SLC employees outside of the Storm Water Quality Program are trained to respond and assist to spills and illegal discharges. SLCDPU coordinates and works together with the SLC Fire Department and SLC Fire Department Hazmat when responding to IDDEs. The SLCoHD also responds to illicit discharges and follows up with enforcement actions as necessary. SLCDPU works closely with the SLCoHD in response to and enforcement of IDDE events. The SLCoHD and SLCDPU finalized a Memorandum of Understanding (MOU, included as Appendix A) in 2015 formally defining the working relationship and cooperative efforts regarding storm water within the City boundaries. Funding for this program comes from the Storm Water Utility Fund.

Construction Site Storm Water Runoff Control Program. This program is implemented by the Storm Water Quality Program and has a dedicated FTE, a Storm Water Quality Coordinator, to manage documentation, inspect sites, and oversee the program. Other Public Utilities employees are RSI certified and assist as needed (e.g., water quality staff, engineering technicians, and utility inspectors). Storm Water Pollution Prevention Plans (SWPPPs) are reviewed by SLCDPU personnel as part of development review and are reviewed throughout construction. The Construction Site Storm Water Runoff Control Program also oversees and conducts site inspections, enforces construction permits and closes out projects with a Notice of Termination (NOT) when construction is finished. Funding for this program comes from the Storm Water Utility Fund.

Long-Term Storm Water Management in New Development and Redevelopment Program (Post Construction). The Post Construction Program is implemented by various work groups within SLCDPU. Site Plan Review is done by SLCDPU Engineering Division, who review the initial submitted plans for new development or redevelopment. The Engineering Division identifies opportunities to encourage Green Infrastructure (GI) and Low Impact Development (LID) when appropriate. Sites that implement GI and LID structural BMPs may be eligible for discounted rates for the storm water impact fee. Sites that receive a discount will continue to be overseen by the GIS Department, who has dedicated FTE, to inspect these sites and maintain an updated database. Funding for this program comes from the Storm Water Utility Fund.

Pollution Prevention and Good Housekeeping for Municipal Operations. SLC has various departments and facilities that are covered under the Pollution Prevention and Good Housekeeping for Municipal Operations within the City. Departments with facilities that are designated “high priority” will be responsible for their respective facilities and portion of the O & M Program. This program will be implemented by designated City employees within the operations and maintenance departments, as well as other employees responsible for their respective facilities. These City Departments may include,

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but are not limited to: Streets, Golf, Fleet, Parks, Sanitation, Fire, and Public Utilities. Each department or program will be responsible for their particular facilities or operations as they relate to storm water quality. They shall be accountable for addressing pollution prevention and good housekeeping including implementation of SOPs, routine inspections, and documentation. The Storm Water Quality Program will oversee and assist the program as needed, in addition to ensuring responsible parties are adequately trained. Funding for this program comes from the Storm Water Utility Fund.

Industrial and High Risk Runoff Program. This program is implemented by the Storm Water Quality Program and has a dedicated FTE, a Storm Water Quality Coordinator, to manage documentation, inspect sites, and oversee the program. This program monitors “high priority” commercial facilities and UPDES Multi-Sector General Permit holders for storm water discharges associated with Industrial Activities, issues Salt Lake City Storm Sewer Industrial Discharge (SSID) permits, reviews SWPPPs for applicable sites, conducts site inspections, and enforces permit requirements. Funding for this program comes from the Storm Water Utility Fund. The City’s Pretreatment Program monitors similar facilities and is a valuable resource in assisting in identifying potential high risk or industrial facilities that may apply to this program. Also, industrial and commercial sites that receive a discounted storm water impact fee will continue to be overseen by the SLCDPU GIS Department, who has dedicated FTE, to inspect these sites and maintain an updated database.

Monitoring, Recordkeeping and Reporting. Monitoring, Recordkeeping and Reporting is mainly conducted by the Storm Water Quality Program and is overseen by the Storm Water Quality Program Manager. Other City Departments and entities will be required to document employee training and inspections in regards to their portion of the O & M program. Funding for this program comes from the Storm Water Utility Fund.

1.5 SWMP SUMMARY

This SWMP has been developed to reduce the discharge of pollutants from the MS4 to the MEP, meet the requirements of the 2015 permit, and protect water quality. It consists of the six minimum control measures developed by the EPA for Phase I municipal storm water discharges. In addition to the Minimum Control Measures, this SWMP addresses the requirement for Phase I municipalities to conduct storm water quality monitoring and administer an Industrial and high risk runoff program. Implementation of each control measure is designed to reduce the discharge of storm water pollutants to Waters of the State of Utah. SLC ordinances, including *The Riparian Corridor Overlay Ordinance* and the *Storm Water System Ordinance* (refer to Appendix B), have been developed to define and protect the City’s MS4 and Waters of the State. Each control measure contains BMPs that facilitate in achieving the goals of each control measure. BMPs are essential for effectively implementing a proper SWMP. Many of these BMPs were included in previous iterations of the SWMP and have been updated as necessary to meet the current 2015 Permit requirements and city needs (refer to Appendix C). In addition, the City has and is in process of developing standard operating procedures (SOPs) or similar documents to address specific storm water quality needs (refer to Appendix D). The SWMP is intended

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to be a dynamic document with BMPs and SOPs being added, deleted, or modified as new or better management practices are recognized and other management practices are found to be ineffective.

Below is a brief description of each of the six minimum control measures and applicable BMPs to be implemented in meeting the 2015 permit requirements. The implementation of the BMPs will be detailed at the end of each section in the Goals and Measurements Tables. The complete list of BMPs is included as Appendix C.

Public Education and Outreach on Storm Water Impacts. The Storm Water Quality Program is an active participant with the Salt Lake County Storm Water Coalition. In conjunction with the Storm Water Coalition and with other City Departments, Public Education and Outreach is addressed through numerous avenues. For example, the Storm Water Coalition has implemented the “We All Live Downstream” storm water campaign to educate the general public regarding storm water impacts that can result from residential activities. In addition, the City has implemented a City-wide environmental education program through the Tracy Aviary that is aimed at increasing the public’s knowledge of environmental concerns, including storm water. The SLCDPU storm water utility funds much of the program. The Public Education and Outreach program also will target residents, businesses, institutions, and commercial facilities, developers and contractors (construction) and MS4 industrial facilities. The following BMPs have been developed and implemented as a public education program with materials that describe the impacts of storm water and actions to reduce pollutants.

| BMP | Description |
|---------|--|
| BMP 3: | Support “Tan Can” yard waste pickup for Salt Lake City residents. |
| BMP 4: | Support the Neighborhood annual cleanup program for Salt Lake City residents. |
| BMP 6: | Support the Curbside recycling effort for Salt Lake City residents. |
| BMP 7: | Support Citizen clean-up days of selected waterways |
| BMP 21: | Continue education program on the proper use of pesticides and fertilizers. |
| BMP 27: | Promote City-County Health Department Household Hazardous Waste Facility and Collection Days. |
| BMP 37: | Continue program to promote public reporting of illicit discharges |
| BMP 38: | Continue to implement an education program for industrial users on oil and toxic materials |
| BMP 39: | Continue education for residential users on oil and toxic materials disposal. |
| BMP 43: | Identify and Prioritize industrial and priority commercial groups. |
| BMP 45: | Distribute water quality education materials to Industrial and priority commercial facilities. |

Public Involvement / Participation. SLCDPU will continue to look for opportunities to involve the public in developing policy and procedures such as The Public Utilities Advisory Committee (PUAC), which is comprised of citizens appointed by the Salt Lake City mayor and is an integral part in reviewing major policy decisions. The PUAC meetings are open to the public and held the fourth Thursday of the month at 7:30 AM at 1530 South West Temple. The following BMPs have been developed and implemented as a public involvement/ participation program to include public involvement.

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| BMP | Description |
|----------------|---|
| BMP 3: | Support “Tan Can” yard waste pickup for Salt Lake City residents. |
| BMP 4: | Support the Neighborhood annual cleanup program for Salt Lake City residents. |
| BMP 6: | Support the Salt Lake City Curbside recycling effort. |
| BMP 7: | Support scheduled citizen clean-up days of selected waterways. |
| BMP 27: | Promote City-County Health Department Household Hazardous Waste Facility and Collection Days. |
| BMP 37: | Continue to promote program of public reporting of illicit discharges. |
| BMP 39: | Continue education for residential users on oil and toxic materials disposal. |

Illicit Discharge Detection and Elimination (IDDE). SLCDPU has an active IDDE program that includes a 24 hour hotline for reporting of illicit connections and illegal discharges, a detailed map of the storm sewer system, and ordinances that pertain to storm water quality and enforcement. SLCDPU coordinates and works together with the SLC Fire Department and SLC Fire Department Hazmat when responding to IDDEs. The SLCoHD also responds to illicit discharges and follows up with enforcement actions as necessary. SLCDPU works closely with the SLCoHD in response to and enforcement of IDDE events. The following BMPs have been implemented to detect and eliminate illicit discharges and improper disposal into the storm drain system.

| BMP | Description |
|----------------|---|
| BMP 2: | Inspect all major storm drains and detention basins within the permit cycle. |
| BMP 9: | Conduct annual training for drainage system maintenance personnel. |
| BMP 10: | Continue a program for the disposal of sediments from storm drain cleaning. . |
| BMP 21: | Continue education program on the proper use of pesticides and fertilizers. |
| BMP 22: | Continue SWMP program similar to the pretreatment program. |
| BMP 23: | Maintain industrial user NAICS/SIC code database. |
| BMP 24: | Coordinate with POTW pretreatment program. |
| BMP 25: | Maintain records and database of all illicit connection investigations. |
| BMP 26: | Review all new developments plans for compliance and illicit connections. |
| BMP 27: | Promote City-County Health Department Household Hazardous Waste Facility and Collection Days. |
| BMP 28: | Continue program for investigating illicit flows and connections. |
| BMP 29: | Implement Memorandum of Understanding (MOU) with City-County Health Department. |
| BMP 30: | Maintain staff to respond to reports of illicit discharges. |
| BMP 31: | Promote interagency cooperation concerning illicit flows investigation. |
| BMP 32: | Pursue prosecutions and court ordered solutions to contamination problems. |
| BMP 33: | Investigate dry weather flows. |
| BMP 37: | Continue to promote program of public reporting of illicit discharges. |
| BMP 38: | Continue education program for industrial users on oil and toxic materials disposal. |
| BMP 39: | Continue education for residential users on oil and toxic materials disposal. |
| BMP 36: | Continue to provide HAZWOPER training to applicable personnel |

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Construction Site Storm Water Runoff. The SLCDPU Construction Site Storm Water Runoff Control Program addresses pollutants from development and construction runoff. This program includes a Salt Lake City construction activities permit, storm water ordinances, and RSI-Certified personnel that oversee and assist in the program.

The following BMPs have been developed and implemented to enforce a program to reduce pollutants to the MS4 from construction activities that result in a land disturbance of greater than or equal to one acre.

| BMP | Description |
|----------------|---|
| BMP 12: | Enforce the requirements of Salt Lake City Ordinances |
| BMP 13: | Provide Standard BMPs for site development to developers and engineers. |
| BMP 17: | Continue procedures for monitoring storm water management on Public construction projects. |
| BMP 30: | Maintain staff to respond to reports of illicit discharges. |
| BMP 31: | Promote interagency cooperation concerning illicit discharge investigation. |
| BMP 32: | Pursue prosecutions and court ordered solutions to significant contamination problems. |
| BMP 37: | Continue to promote program of public reporting of illicit discharges. |
| BMP 44: | Staff a position for coordinating storm water pollution prevention. |
| BMP 46: | Continue a storm water quality-training program for development review personnel. |
| BMP 47: | Coordinate with Salt Lake County regarding BMP guidance information for construction sites. |
| BMP 48: | Continue to obtain and review SWPPP prepared by contractors. |
| BMP 49: | Develop a program to enforce SWPPP. |
| BMP 50: | For City projects identify erosion control measures as a specific bid item. |
| BMP 51: | Participate in education training and seminars conducted by the State of Utah and other agencies. |

Long-Term Storm Water Management in New Development and Redevelopment (Post-Construction Storm Water Management). Salt Lake City requires all commercial, industrial, and residential developments with impervious areas greater than 15,000 square feet to provide onsite detention facilities to limit the discharge to a pre development rate of 0.2 cubic feet per second per acre (cfs/acre) during the 100 year storm. Salt Lake City has developed an ordinance that addresses Post-Construction Storm Water Management; in addition, the City continues to develop and maintain an inventory for structural storm water control measures.

The following BMPs have been developed and implemented to address post construction development to prevent or minimize storm water runoff from new development and redevelopment construction sites that disturb greater than or equal to one acre including projects less than one acre that are part of a common plan of development or sale.

| BMP | Description |
|----------------|---|
| BMP 11: | Continue requirements for on-site detention for developments. |
| BMP 12: | Enforce the requirements of Salt Lake City Ordinances |

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| | |
|----------------|---|
| BMP 14: | Continue annual review program for private drainage detention facilities. |
| BMP 18: | Review proposed street projects for applicability of structural BMPs. |
| BMP 19: | Review all proposed storm water projects for applicability of structural BMPs. |
| BMP 20: | Review detention basins for feasibility of retrofitting for water quality enhancements. |
| BMP 26: | Review all new developments plans for compliance and illicit connections. |
| BMP 46: | Continue a storm water quality-training program for development review personnel. |
| BMP 47: | Coordinate with Salt Lake County regarding BMP guidance information for construction sites. |

Pollution Prevention and Good Housekeeping for Municipal Operations. Salt Lake City has developed an inventory of City-owned and operated facilities. The City will identify as “high priority” those facilities that have a high potential to generate storm water pollutants. Facilities identified as “high priority” will include required site inspections to assess structural and non-structural BMPs with the intent to reduce , to the MEP pollutants to the MS4 from municipal facilities. Inspections will be conducted and documented to meet permit requirements. In addition, The City will develop specific SOPs or similar documents for the Pollution Prevention and Good Housekeeping for Municipal Operations Program.

The following BMPs have been developed and implemented with the ultimate goal of preventing or reducing polluted runoff from municipal operations to the MEP.

| BMP | Description |
|----------------|--|
| BMP 1: | Clean all required portions of the drainage system every 5 years. |
| BMP 2: | Inspect all major storm drains and detention basins within the permit cycle. |
| BMP 5: | Remove leaves from gutters during the fall leaf season. |
| BMP 6: | Support the Salt Lake City curbside recycling effort. |
| BMP 8: | Track drainage system maintenance using Cityworks® system. |
| BMP 9: | Conduct annual training for drainage system maintenance personnel. |
| BMP 10: | Continue proper disposal methods for sediments from storm drain cleaning. |
| BMP 15: | Support the existing Salt Lake City Street Sweeping program. |
| BMP 16: | Review salt pile storm water management. |
| BMP 17: | Continue procedures for monitoring storm water management on public construction projects. |
| BMP 18: | Review proposed street projects for applicability of structural BMPs. |
| BMP 19: | Review all proposed storm water projects for applicability of structural BMPs. |
| BMP 20: | Review detention basins for feasibility of retrofitting for water quality enhancements. |
| BMP 34: | Continue to implement storm drain spill response plan. |
| BMP 36: | Continue to provide HAZWOPER training to applicable personnel |

Industrial and High Risk Runoff. Salt Lake City has developed a comprehensive program to monitor storm water discharges from industrial facilities. Part of this program is to continue to develop and maintain an inventory of Industrial sites. In addition, the City issues Salt Lake City SSID permits to run concurrent with the state issued UPDES Multi-Sector General Permit (MSGP) designated for industrial

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sites as defined by the 2015 permit. All identified industrial sites shall be inspected at least once within the permit cycle; inspections will be conducted and documented in accordance with the 2015 permit requirements.

In addition to the Industrial program, Salt Lake City will develop and implement a program to identify, inspect and enforce “high priority” commercial facilities. High Priority sites will be identified based on commercial facilities that are deemed to pose the greatest threat to water quality. Inspections and documentation shall meet at least the minimum requirements detailed in the 2015 permit.

City ordinance give legal authority to conduct inspections, require compliance, and enforce permit requirements. The following BMPs have been implemented to monitor pollutants in the runoff from industrial and high risk runoff facilities.

| BMP | Description |
|----------------|---|
| BMP 22: | Continue SWMP program similar to the pretreatment program. |
| BMP 23: | Maintain industrial user NAICS and SIC code database. |
| BMP 38: | Continue to implement an education program for industrial & commercial users on oil and toxic materials disposal. |
| BMP 41: | Maintain an industrial user’s database. |
| BMP 42: | Obtain and review SWPPP prepared by industrial users within the Salt Lake City area. |
| BMP 43: | Identify and Prioritize industrial and priority commercial groups. |
| BMP 44: | Staff a position for coordinating storm water pollution prevention. |
| BMP 45: | Distribute water quality education materials to Industrial and priority commercial facilities. |

Monitoring, Recordkeeping and Reporting. Salt Lake City will continue to implement wet weather monitoring and dry weather screening as outlined in the 2015 permit. Wet Weather monitoring includes sampling and analyzing storm water to look for trends or patterns that may identify pollutants to target in storm water management. Weather permitting, wet weather monitoring is conducted twice a year, once in the spring and once in the fall. Dry weather screening includes conducting a visual inspection of all outfalls during dry weather seasons when there are no storm water flows, this helps in identifying potential illicit discharges and illegal connections to the MS4. All outfalls shall be inspected within the permit cycle. Monitoring data is detailed in the Annual Report and all sample results and analytical data will be stored electronically.

Recordkeeping and Documentation is an integral part of the SWMP and the Storm Water Quality Program. All events pertaining to the six minimum control measures and the 2015 permit are to be documented and stored electronically.

The City will continue to prepare an Annual Report and submit it to the DWQ in accordance with the requirements outlined in the 2015 Permit. The preparation of the annual report is a critical process in which the SWMP is to be reviewed; along with an assessment of BMPs and their effectiveness, and any other data pertinent to Storm Water Quality Management.

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2.0 SPECIAL CONDITIONS

The 2015 Permit requires the SWMP address potential impacts to impaired waterbodies. This section identifies and addresses those waterbodies.

2.1 DISCHARGES TO WATER QUALITY IMPAIRED WATERS

In accordance with the DRAFT 2012 Integrated Report (DWQ, 2015), there are currently five impaired waterbodies within Salt Lake City. The waterbodies and information on impairment and Total Maximum Daily Load (TMDL) are presented in **Table 2.1**.

Table 2.1 Impaired Waterbodies in Salt Lake City (DRAFT 2014 Integrated Report)

| Watershed Management Unit | Watershed Management Name | Location of Impairment | Beneficial Use ¹ | Pollutant | TMDL Status |
|---------------------------|---------------------------|--|-----------------------------|-----------------------------|----------------------------------|
| | City Creek | AB Filtration Plant | 3A HH3A | Cadmium | not supporting |
| | Emigration Creek | Emigration Creek and tributaries from 1100 East (below Westminster College) to stream gage at Rotary Glen Park (40 44 58.49N, 111 48 36.29W) above Hogle Zoo | 2B | E. Coli | not supporting |
| Jordan River / Utah Lake | Jordan River | BL Gadsby plant 001 Outfall at N. Temple | 3B | Dissolved Oxygen | TMDL |
| | Jordan River | at 500 N Crossing | 3B, 3D | Dissolved Oxygen | TMDL |
| | Jordan River | 1800 N Xing Redwood RD BGD | 3B, 3D | Dissolved Oxygen | TMDL |
| | Jordan River | 700 S | 3B | Dissolved Oxygen | TMDL |
| | Jordan River | California Ave (1300 S Xing) | 3B | Dissolved Oxygen | TMDL |
| | Jordan River | at 500 N Crossing | 2B, | E. Coli | not supporting |
| | Jordan River | 1800 N Xing Redwood RD BGD | 2B, | E. Coli | not supporting |
| | Parleys Canyon Creek | AB pond at Sugarhouse Park, BL historic nature preserve at bottom culvert, at hidden hollow | 1C, 2B 3A | E. Coli OE Bioassessment | not supporting not supporting |
| | Red Butte Creek Lower | 1100 East to Red Butte Reservoir | 3A | OE Bio-assessment | not supporting |

¹ 1C – Domestic Water Supply

2B – Secondary Contact Recreation

3A – Cold Water Species of Game Fish

3B – Warm Water Species of Game Fish

4 – Agriculture

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Salt Lake City currently discharges storm water to City Creek, Red Butte Creek, Emigration Creek, Parleys Canyon Creek, and the Jordan River (2100 South the Davis County Line).

Salt Lake City has been involved with development of the TMDLs for these creeks and will continue to implement BMPs and evaluate potential impacts to impaired waterbodies.

3.0 PUBLIC EDUCATION AND OUTREACH ON STORM WATER IMPACT

The Public Education and Outreach on Storm Water Impacts Program is intended to increase public awareness of problems and solutions regarding storm water quality aimed to stimulate the public to alter its lifestyle and to make the financial commitment necessary to reduce storm water pollutants into the MS4 and preserve water quality. Education is recognized as an effective management tool that fosters recognition on the part of the public and their habits that contribute to the degradation of water runoff quality. An educated public can help protect the MS4 in a proactive manor in preventing contaminations before they happen and to help identify and report them when they do occur.

The Salt Lake City Public Education and Outreach Program will target four audiences in accordance with Part 4.2.1 of the Permit. These audiences are: 1) Residents, 2) Businesses, Institutions, and Commercial Facilities, 3) Developers and Contractors, and 4) MS4 industrial facilities. The information provided to these audiences includes information regarding potential impacts of storm water on receiving waters and methods for minimizing these impacts.

3.1 DESCRIPTION

Public Education and Outreach is an effective management tool applicable to many other sections of the SWMP and therefore integrated to provide up-to-date information with other sections, including the IDDE, Construction Site Storm water Runoff Control, Long-Term Storm water Management, and Good Housekeeping Programs.

Salt Lake City is an active participant in various organizations that work collectively in an effort to reduce pollutants to storm water runoff by meeting and discussing common challenges and solutions. The intent of these groups and committees is to promote consistent public and professional awareness. These groups include:

- *Storm Water Coalition*: Provides general public with information regarding storm water quality.
- *Utah Storm Water Advisory Committee (USWAC)*: Provides UPDES guidance and updates for governmental entities and other professional groups involved in storm water quality.
- *Salt Lake County Environmental Crimes Task Force*: Presents information, case review, and training for Salt Lake County municipalities in regards to environmental crimes and enforcement.

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- *Salt Lake City Event Review Committee (ERC):* Reviews upcoming events in Salt Lake City and their potential impacts to the environment, including storm water quality. SLCDPU's role is to ensure BMPs are developed and implemented.

3.1.1 RESIDENTIAL EDUCATION AND OUTREACH PROGRAM

Objective: To educate the general public of pollution associated with storm water runoff and how their behavior can help reduce pollutants to the MS4.

Permit Requirement: Part 4.2.1.1, 4.2.1.2 and 4.2.1.7 Public Education and Outreach
Part 4.2.3- Illicit Discharges Detection & Elimination

Description: Promote behavioral change in residents by providing specific information relevant to residential activities; topics may include but are not limited to: maintenance of septic systems, proper use of pesticides, herbicides and fertilizers, effects of outdoor and household activities, effects of automotive work and car washing on water quality, benefits of on-site infiltration, proper disposal of swimming pool water and proper management of pet waste.

Collection and Clean Up Programs: Salt Lake City has created and continues to support programs that aim to inform and educate, as well as create avenues and opportunities, for its residents to properly dispose of waste and potential pollutants to the MS4. Salt Lake City will continue to promote and support these integral programs (BMP 27 done in conjunction with SLCoHD):

- BMP 3:** The "Tan Can" yard waste pickup
- BMP 4:** Neighborhood annual cleanup program
- BMP 6:** Salt Lake City Curbside recycling
- BMP 7:** Support citizens clean up days of selected waterways.
- BMP 27:** City-County Health Department Household Hazardous Waste Facility and Collection days.
- BMP 37:** Continue to implement a program to promote public reporting of illicit discharges

Water Quality Fair: In cooperation with the Storm Water Coalition the water quality fair is held annually. The venue is currently at the Hogle Zoo, located in Salt Lake City. The fair consists of a series of booths and informational demonstrations presented by individual agencies; topics include storm water pollution and other water related issues. This fair is held for fourth grade students and coincides with the Water Cycle in the current school curriculum. Students from Salt Lake City spend a morning visiting the booths. Printed storm water materials and give-aways are distributed. The intent is not only to provide storm water information to the students, but for this information to be received by the students' families as well; potentially reaching a larger audience. The Salt Lake City

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Storm Water Quality Program delivers invitations to SLC schools to attend the Water Quality fair, at the same time offering class room presentations on storm water quality.

- *School Presentations:* In 2011, Salt Lake City purchased an EnviroScape® watershed model to use in presentations at the City public and private schools upon request. This model represents a watershed where students reenact various scenarios to demonstrate non-point source pollution and its effects on our lakes and rivers.

Tracy Aviary, Nature in the City Program: Salt Lake City in conjunction with Tracy Aviary has created an educational outreach program designed to reach 4th, 8th, and 12th grade students on environmental literacy and stewardship. The program has multiple types of presentations that cover a wide array of environmental messages including storm water quality. The topics have been developed to convey specific messages that have been divided into the three age groups (4th, 8th, 12th grade), to illustrate and provide suggestion for potential topical dialogues that are developmentally appropriate for the age group.

Media Campaign: The Storm Water Coalition conducts a mass media campaign designed to reach a broad audience with the message of preventing storm water pollution. The Coalition partners with top-rated local TV stations and has created commercials that are broadcasted throughout the state. Campaigns are typically conducted in the spring and fall and run for a two- to three- week period. News stations are invited annually to the Water Quality Fair and have aired stories on the fair. The campaign also includes internet advertising generally partnered with local TV websites.

Educational Materials: These materials are designed to promote, educate, and remind the community at large about storm water quality issues. Materials distributed by the coalition and Salt Lake City include information designed to promote the Storm Water Quality Program. The City looks for opportunities to develop new educational materials as new storm water issues arise and will continue to distribute current educational materials. Current education materials include:

- Various handouts & Informational flyers
- Brochures e.g.,
 - Storm Water Quality
 - Fats, oils and greases
 - Prescription drug disposal
 - Watershed “Keep it Pure” campaign
 - Dogs in the Wasatch front
 - Waterwise watering
 - Pet waste disposal
 - Landscaping
 - Erosion control
 - Fresh concrete and mortar application
 - Paint and household hazardous waste
 - Household and vehicle maintenance

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- Consumer Confidence Report: Salt Lake City's Consumer Confidence Report addresses storm water quality issues and is delivered annually to customers (over 90,000 connections) residents within the City and County.
- Water Conservation Annual Calendar: SLCDPU annually publishes approximately 25,000 calendars that cover a broad range of topics for the Department including stormwater quality. The calendars are distributed free of charge to the public throughout the City to locations including public buildings, libraries, schools, etc. .
- Other educational reminders and handouts distributed will include: water bottles, Lip Balm, Reusable Grocery Bags, pencils, and tabloids activity book.

BMP 21: Continue education program on the proper use of pesticides and fertilizers

BMP 39: Continue education for residential users on oil and toxic material disposal

Internet and Social Media: The Storm Water Coalition has maintained a website for several years <http://www.stormwatercoalition.org> . This website not only provides storm water information, but provides links to other sites for information, as well as member sites for more local information. This website will be updated as necessary. In addition to the Coalition site, Salt Lake City also has an abundance of storm water information available on its website: <http://www.slcgov.com/utilities> This site includes tips for residents and homeowners in protecting the MS4 and a copy of the SWMP to allow for public interaction and participation in the program development, this is further detailed in Section 4.1.1- Public participation/involvement of this SWMP. The City will continue to look for opportunities to update and add more information to the website.

3.1.2 BUSINESSES, INSTITUTIONS, AND COMMERCIAL FACILITIES

Objective: To reduce the discharge of storm water pollutants from businesses, institutions, and commercial facilities by taking a proactive approach in educating these users on illicit discharges and the potential impacts; particularly in relation to their specific business or business process.

Permit Requirement: Part 4.2.1.3 and 4.2.1.7 - Public Education and Outreach on Storm Water Impacts
Part 4.2.3- Illicit Discharges Detection and Elimination

Description: The City will provide information to commercial users about water quality impacts associated with illicit discharges and improper disposal of waste. The information distributed is aimed at addressing specific users that have facilities or business that are more likely to have discharges that may have an adverse effect on storm water quality. The intent is to educate businesses, institutions and commercial users about their activities that could potentially impact water quality, regulations and consequences against prohibited discharges.

Brochures, handouts and other relevant information will continue to be developed to target these users and will be distributed as applicable. Specific topics to be included in this education program include proper lawn maintenance; benefits of on-site infiltration of storm water, building and equipment maintenance, use of salt or other deicing materials, proper storage of materials, proper management of

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waste materials and dumpsters, and proper management of parking lot surfaces. Applicable business and commercial facilities will be identified by the City by the type of business through new business licensing and known facilities that have a high potential to discharge pollutants.

BMP 21: Continue education program on the proper use of pesticides and fertilizers

BMP 38: Continue to implement an education program for industrial users on oil and toxic materials disposal.

BMP 43: Identify and Prioritize industrial and priority commercial groups.

BMP 45: Distribute water quality education materials to Industrial and priority commercial facilities.

3.1.3 DEVELOPERS AND CONTRACTORS EDUCATION PROGRAM

Objective: Promote behavioral change in the construction industry to reduce water quality impacts associated with construction storm water runoff and illicit discharges by educating and providing information to developers and contractors.

Permit Requirement: Part 4.2.1.4 – Public Education & Outreach on Storm water Impacts
Part 4.2.4. – Construction Site Storm Water Runoff Control
Part 4.2.5. – Long-term Storm Water Management in New Development & Redevelopment

Description: Inform and Educate engineers, contractors, developers, development review staff, and land use planners on storm water regulations, SWPPP requirements, and BMPs in regards to construction activities by providing educational materials on relevant subjects. Information regarding construction activities may be provided through Salt Lake City’s website, guidance documents, and/or pre-construction conferences for applicable projects.

3.1.4 MUNICIPAL FACILITIES EDUCATION PROGRAM

Objective: Reduce the discharge of pollutants to storm water by providing training to applicable employees with regards to water quality impacts associated with illicit discharges, improper disposal of waste and LID practices.

Permit Requirement: Part 4.2.1.5 & 4.2.1.6 – Public Education and Outreach on Storm Water Impacts
Part 4.2.4 – Construction Site Storm water Runoff Control
Part 4.2.5 – Long-term Storm Water Management in New Development and Redevelopment

Description: Provide MS4 engineers, development and plan review staff, land use planners and other employees as applicable, with educational materials regarding storm water regulations, GI and LID

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practices, and the IDDE Program. Applicable City personnel will be provided annual training with regards to City storm water regulations, inspections and maintenance, BMPs for businesses and commercial facilities, and construction sites and MS4 industrial facilities. Training may include various methods and mediums. Training topics will include the following:

- Equipment inspection and maintenance
- Proper storage of industrial materials
- Proper management and disposal of wastes
- Proper management of dumpsters
- Minimization of use of salt and other de-icing material
- Benefits of on-site infiltration
- Proper maintenance of parking lots
- LID practices and green infrastructure practices

BMP 21: Continue education program on the proper use of pesticides and fertilizers

3.1.5 TRAINING EVALUATION

Objective: To obtain feedback from training participants for the education and outreach program to gauge the effectiveness of the training provided.

Permit Requirement: Part 4.2.1.8. - Public Education and Outreach on Storm Water Impacts

Description: Provide evaluation methods to obtain and record data that represents knowledge gained through the Public Education and Outreach Program. These evaluation methods may include but not limited to: surveys, exit polls, interviews, round table discussions and comment cards.

3.2 IMPLEMENTATION STATUS

Measurable goals for this program to be implemented and assessed during the permit term are presented in **Table 3.1**. The purpose of measureable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 3.1 Implementation Status for Public Education and Outreach Program

| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|--|---|--------------------------|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| x | x | x | x | X | BMP 3: Support SLC Tan Can Program | <ul style="list-style-type: none"> • Minimize fall leaves from getting in the gutters and storm drain system. | Tons of leaves composted and used to measure the effectiveness of this BMP | Office of Sustainability |
| x | x | x | x | X | BMP 4: continue the Neighborhood annual cleanup program | <ul style="list-style-type: none"> • To keep household refuse and debris from entering the MS4. | The amount of residential debris removed each year is the measurement used for this BMP | Office of Sustainability |
| x | x | x | x | X | BMP 6: Support City | <ul style="list-style-type: none"> • To reduce or eliminate material that can be recycled | The amount of material recycled and kept out of the | Office of Sustainability |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|--|----------------|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | Curbside Recycling effort | from getting into curbs, storm drainage conveyances, and Waters of the State. | storm drain system and the landfill. | |
| | | x | | | BMP 21: Develop an education program on the proper use of pesticides and fertilizers | <ul style="list-style-type: none"> To have an education program available to educate residents, commercial applicators, and municipal agencies regarding the proper use of pesticides, fertilizers, and herbicides. | The measurement for this BMP is the education provided to the various groups applying pesticides, fertilizers, and herbicides. As these groups become educated, products are properly used and the pollutants from over application are mitigated. | WaterQuality |
| x | x | x | x | x | BMP 27: Promote City County Health Department Hazardous Waste Collection Days | <ul style="list-style-type: none"> To provide the residents of Salt Lake City with a collection day where, they can properly dispose of household hazardous waste. | The measurement for this BMP is the fliers, inserts, and additional information provided by Salt Lake City to promote the Electronic and Household Hazardous Waste Collection at Salt Lake City-County Health Departments permanent facility. | Water Quality |
| x | x | x | x | X | BMP 37: Continue to implement a program to promote public reporting of illicit discharges | <ul style="list-style-type: none"> To have a program that promotes the interest of pollution prevention to the public, and provides information regarding illicit flows and reporting procedures. | The number of illicit flows reported and resolved. | Water Quality |
| | | | | | BMP 39: Continue education program for residential users on oil and toxic materials disposal | <ul style="list-style-type: none"> To have an education program aimed at residential audiences to promote the proper disposal of oil and household toxic materials. | The measurement for this BMP is the number of residents that are educated and properly disposing of material at the Household Hazardous Waste Facility. | Water Quality |
| | x | | | | BMP 43: Identify and Prioritize industrial and priority commercial groups. | <ul style="list-style-type: none"> To provide information to target industrial groups with BMPs regarding water quality, including notifying the industrial facilities of the compliance requirements of the State General Industrial Storm Water Permit. | The measurement of this BMP is the number of target industrial groups that are provided with water quality materials and State/City Industrial Storm Water Permit. | Water Quality |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

4.0 PUBLIC INVOLVEMENT/PARTICIPATION

Public involvement/participation program is designed to involve the general public, stakeholders and potential affected parties in the SWMP process. Interaction with Salt Lake City and its residents/customers is an integral part of protecting storm water quality.

4.1 DESCRIPTION

SLCDPU will continue to look for opportunities to involve the public and will remain active with stakeholders groups, advisory panels, and committees throughout the watershed. For example, SLCDPU is actively involved with the Jordan River Watershed Council, the Provo Watershed Council, the DWQ Nutrient Technical Team and Standards Workgroup, and other groups. The City Storm Water Quality website will be designed with the intent to allow public feedback and input to the program.

In addition, this program compliments the Public Education and Outreach Program, and supports the IDDE Program by encouraging public reporting of illicit discharges while providing opportunities for public involvement/participation.

4.1.1 PUBLIC INVOLVEMENT/PARTICIPATION

Objective: Provide public participation opportunities and promote public involvement in regards to Storm Water Quality Programs and policies.

Permit Requirement: Part 4.2.2.1, 4.2.2.2, 4.2.2.3 and 4.2.2.4 – Public Involvement /Participation

Description: The City will provide an opportunity for the public to review and comment on the SWMP and other regulatory Mechanisms for SWMP implementation. The final SWMP document will be posted on the website for public review for the duration of the permit. Comments will be reviewed annually and incorporated as appropriate. Information on how the public can comment on the SWMP will be provided on the storm water quality website. Programs and BMPs for this program include:

Collection and clean up programs: Salt Lake City along with the SLCoHD have created and continue to support programs that aim to inform and educate as well as create avenues and opportunities for its residents to participate in properly disposing of waste and potentially pollutants to the MS4. Salt Lake City will continue to promote and support these integral programs:

- BMP 4:** Neighborhood annual cleanup program
- BMP 5:** Remove leaves from gutters during the fall leaf season
- BMP 6:** Support Salt Lake City Curbside recycling effort
- BMP 7:** Support scheduled citizen clean-up days of selected waterways

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BMP 27: Promote City-County Health Department Household Hazardous Waste Facility and Collection days.

Education and Outreach: In conjunction with the Public Education and Outreach Program Salt Lake City will implement the following BMPs:

BMP 27: Continue to promote the program of public reporting of illicit discharges

BMP 37: Continue to implement a program to promote public reporting of illicit discharges

BMP 39: Continue education for residential users on oil and toxic materials disposal

4.2 IMPLEMENTATION STATUS

Measurable goals for this BMP to be implemented and assessed during the permit term are presented in **Table 4.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 4.1 Implementation Status for Public Involvement/Participation Program

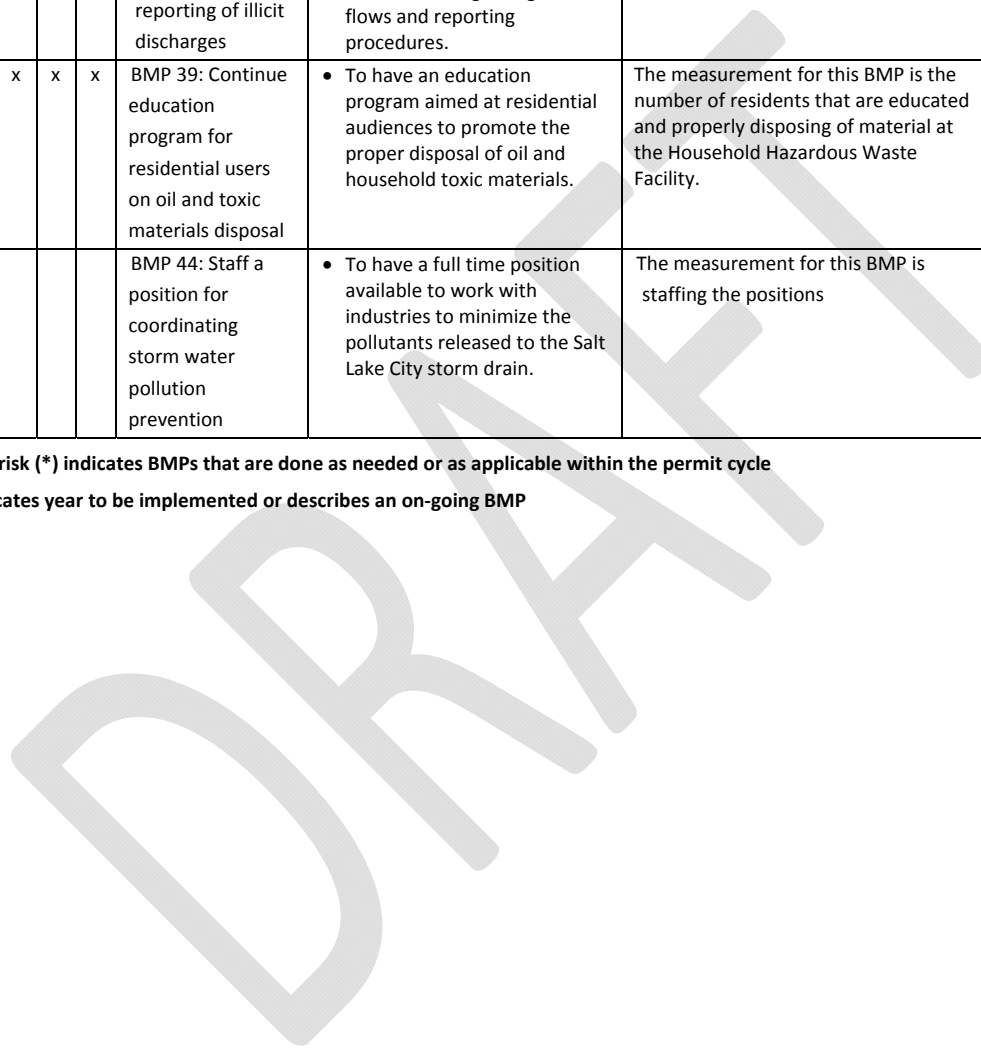
| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|---|------------------------------|----------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| x | x | x | x | x | BMP 3: Support SLC Tan Can Program | <ul style="list-style-type: none"> Minimize fall leaves from getting in the gutters and storm drain system. | Tons of leaves composted and used to measure the effectiveness of this BMP | SCL Office of Sustainability | |
| x | x | x | x | X | BMP 4: Continue the Neighborhood cleanup program | <ul style="list-style-type: none"> To keep household refuse and debris from entering the storm drainage conveyances that lead to the rivers and canals. | The amount of residential debris removed each year is the measurement used for this BMP. | SCL Office of Sustainability | |
| x | x | x | x | x | BMP 6: Support City Curbside Recycling effort | <ul style="list-style-type: none"> To reduce or eliminate material that can be recycled from getting into curbs, storm drainage conveyances, and Waters of the State. | The amount of material recycled and kept out of the storm drain system and the landfill. | SCL Office of Sustainability | |
| x | x | x | x | x | BMP 7: Support citizens clean up days of selected waterways. | <ul style="list-style-type: none"> To improve the aesthetics of selected waterways by removing debris and to promote citizen awareness and responsibility regarding the waterway. | The change in the amount of debris removed from the waterway and hauled to the landfill is one measurement of the success of this BMP. | Parks Dept. | |
| x | x | x | x | X | BMP 27: Promote City County Health Department Hazardous Waste Collection Days. | <ul style="list-style-type: none"> To provide the residents of Salt Lake City with a collection day where, they can properly dispose of household hazardous waste. | The measurement for this BMP is the fliers, inserts, and additional information provided by Salt Lake City to promote the Electronic and Household Hazardous Waste Collection at Salt Lake City-County Health Departments permanent | SLCDPU Storm Water Quality | |

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| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|--|---|----------------------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| | | | | | | | | facility. | |
| x | x | x | x | x | | BMP 37: Continue to implement a program to promote public reporting of illicit discharges | <ul style="list-style-type: none"> To have a program that promotes the interest of pollution prevention to the public, and provides information regarding illicit flows and reporting procedures. | The number of illicit flows reported and resolved. | SLCDPU Storm Water Quality |
| x | x | x | x | x | | BMP 39: Continue education program for residential users on oil and toxic materials disposal | <ul style="list-style-type: none"> To have an education program aimed at residential audiences to promote the proper disposal of oil and household toxic materials. | The measurement for this BMP is the number of residents that are educated and properly disposing of material at the Household Hazardous Waste Facility. | SLCDPU Storm Water Quality |
| x | | | | | | BMP 44: Staff a position for coordinating storm water pollution prevention | <ul style="list-style-type: none"> To have a full time position available to work with industries to minimize the pollutants released to the Salt Lake City storm drain. | The measurement for this BMP is staffing the positions | SLCDPU Storm Water Quality |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP



5.0 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The IDDE Program addresses non-storm water discharges to the MS4. This program includes implementation of BMPs, SOPs and/or similar types of documents to assist in the identification and removal of illicit discharges. This program also will focus on prevention and elimination of new illicit discharges to the MS4.

5.1 DESCRIPTION

The IDDE program will continue to systematically find and eliminate sources of non-storm water discharges to the MS4. This program integrates other programs such as Public Education and Outreach and Public Involvement/Participation; in addition, the City has a MOU with the SLCoHD and regularly coordinates efforts in response, identification, elimination and enforcement of illicit discharges. Salt Lake City will continue to implement the BMPs outlined in this section aimed at reducing the impact of illicit discharges by addressing the following parameters: education and outreach, prevention, identification and prioritization, spill containment and response, employee training, documentation, legal authority, and enforcement. SOPs are included in Appendix D and progress towards the measurable goals will be documented in the Annual Report.

5.1.1. MAPPING

Objective: Continue to maintain and update maps showing the storm sewer system and location of all outfalls, storm drain pipe and other storm water conveyance structures within the MS4.

Permit Requirement: Part 4.2.3.1. – Illicit Discharge Detection and Elimination

Description: Maintain and update maps to assist in emergency response and the IDDE and monitoring programs.

Storm Drain System Map (Permit Requirement 4.2.3.1): The SLCDPU GIS department keeps an up-to-date map of the City's storm drain system that identifies drain pipe, inlets, man holes, ditches, canals, and other conveyance structures with information relevant to the storm drain system. Storm Water Quality personnel have access to maps digitally on mobile devices to allow quick identification of the storm water system and layout while in the field. Accuracy of these maps and the ability to quickly access them play an integral part in identifying and mitigating IDDEs.

Storm Water Quality GIS Map: The Storm Water Quality Program has created a GIS overlay that is maintained and updated to show pertinent information regarding the program. This map shows where industrial and construction inspections and permit holders are located; and provides information and locations of IDDEs.

Fire Department Storm Water Emergency Response Maps: The SLCDPU and SLC Fire Department HAZMAT have created emergency response maps depicting specific sections of the City showing detail of the storm water system including flow indicators. The maps have been compiled into booklets of maps to assist the SLC Fire Department HAZMAT crews efficiently and effectively

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respond to and mitigate IDDEs in emergency situations. Each book details an area of the City that relates to each fire station responsible for said area.

Outfall Mapping and Dry Weather Screening (Permit Requirement 4.2.3.1): Salt Lake City will review known outfalls and update mapping of its outfall coordinates by GPS within the permit cycle; the mapping will be done in coordination with the dry weather screening program. The outfalls will be inspected and documented during dry weather periods to help identify any illicit connections or discharges.

BMP 33: Investigate Dry Weather flows and inspect all known outfalls.

5.1.2 ILLICIT DISCHARGE DETECTION AND ELIMINATION ORDINANCE AND ENFORCEMENT

Objective: To have legal authority to prohibit illicit and illegal discharges; as well as to enforce penalties and remediation as necessary through ordinance.

Permit Requirement: 4.2.3.2. & 4.2.3.2.1 – Illicit Discharge Detection and Elimination

Description: Ordinance No. 53 Title 2 and Title 17 (Appendix B) of the Salt Lake City Code, relating to the Storm Water Sewer System, authorizes escalating enforcement procedures, fines and penalties for prohibited discharges and other prohibited conduct. Title 17, Chapters 17.84 of the ordinance addresses discharges into city storm water sewer system, and defines our legal authority for the City's IDDE program and right of entry for investigations. The enforcement section is described in Title 17, Chapter 17.87 outlining an appropriate course of action for IDDE violations.

5.1.3 IDDE PLAN

Objective: Reduce pollutants in storm water runoff to the MEP by developing and implementing a plan to detect and address non-storm water discharges to the MS4.

Permit Requirement: Part 4.2.3.3., 4.2.3.3.1, 4.2.3.3.2, 4.2.3.4, 4.2.3.5., 4.2.3.5.1, 4.2.3.6, 4.2.3.6.1, 4.2.3.7., 4.2.3.8, 4.2.3.9., 4.2.3.9.1 & 4.2.3.10 – Illicit Discharge Detection and Elimination
Part 4.2.1 – Public Education and Outreach
Part 4.2.2 – Public Involvement/Participation

Description: Develop and implement an IDDE plan with appropriate ordinances and MOUs that provide for City access and enforcement activities. The plan will include inspections, prioritization, mapping, interagency coordination, public education and involvement, documentation/recordkeeping, and SOPs or similar documents as outlined in the permit, including but not limited to: inspection reports, tracing an illicit discharge source, characterizing an illicit discharge, and eliminating an illicit discharge, as well as the notification process of proper parties. The following BMPs and procedures detail the IDDE Plan.

Interagency Coordination (Permit Requirement 4.2.3.8.): The Salt Lake City Storm Water Quality Program coordinates with multiple agencies on a regular basis in regards to the IDDE program including: Fire, Hazmat, DWQ, stakeholders, and most commonly the SLCoHD. The relationship agreement between Salt Lake City and SLCoHD initially was explained in a letter of

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understanding created in 1993 and has now been further detailed in a MOU finalized on in July 2015.

BMP 27: Support the SLCoHD Household Hazardous Waste Program (HHW). Advertise collection days and locations.

BMP 29: Implement Memorandum of Understanding (MOU) with the SLCoHD.

BMP 31: Promote interagency cooperation in the investigation, assessment, and gathering of evidence relating to illicit and illegal discharges.

Prevention: Salt Lake City incorporates its IDDE program with multiple other programs, including the Industrial and High Risk Runoff Program. The integration of these programs is designed to develop and maintain a partnership with the industrial and business community to identify and remove illicit connections to the MS4. The intent of the program is to provide consistent guidance and direction to the regulated community. Pollution prevention at the source is key element of the program. The following BMPs and procedures shall continue to be implemented to help achieve the goals of the program:

BMP 22: Continue SWMP program similar to the pretreatment program.

BMP 23: Maintain a database of industrial users based on North American Industrial Classification System (NAICS) or Standard Industrial Classification (SIC) codes. The first 3 digits of the Salt Lake City business license are the facility SIC code. Priorities target industries and business that have a high potential for illicit connections or discharges

BMP 24: Coordinate with the activities and inspections of the POTW pretreatment personnel. Any observed illicit connections will be followed up by the storm water pollution prevention specialist.

BMP 26: Review all new commercial and industrial development plans to insure plans are in compliance. Provide in-house training of plan reviewers.

Priority Areas (Permit Requirement 4.2.3.3.1): Salt Lake City identified priority areas in part 1 of the original permit that indicated that the highest concentration of potential illicit connections is along the I-15 corridor that contains a mix of older industrial and commercial land uses. The City will continue to implement and update a plan to inspect all known priority areas within the permit cycle.

Field Assessment Activities - Dry Weather Screening (Permit Requirement 4.2.3.3.2): In accordance with the mapping section of the IDDE program outlined in section 5.1.1. of the SWMP the City will inspect all known outfalls and record its findings within the permit cycle.

BMP 33: Investigate sources of observed flows during dry weather periods.

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Investigating and Tracing Illicit Discharge Source (Permit Requirement 4.2.3.4): Salt Lake City will continue to investigate and trace illicit discharges as well as develop and implement an SOP or similar type of document. Detailed documentation of these efforts will be maintained in the “IDDE Incidents” file.

BMP 28: Continue program for investigation illicit flows and connections

BMP 30: Continue to maintain personnel to respond to reports of illicit discharges.

Characterizing the Illicit Discharge (Permit Requirement 4.2.3.5): The City will develop and implement an SOP or similar type of document for characterizing the nature of, and the potential public or environmental threat posed by an illicit discharge found or reported to the City. Details and documentation requirements are outlined in the Appendix D.

Documentation for IDDE inspections (Permit Requirement 4.2.3.5.1): See Section 5.1.4 of SWMP for documentation and inspection reporting.

Eliminating Illicit Discharge and Notification (Permit Requirement 4.2.3.6.): Salt Lake City will develop and implement an SOP or similar document detailing the current process used for ceasing of an illicit discharge and notifying the appropriate parties (Appendix D).

BMP 32: Pursue prosecutions and court-ordered solutions to significant contamination problems.

IDDE Education (Permit Requirement 4.2.3.7. & 4.2.3.8): Salt Lake City will include information regarding illicit discharges and improper disposal of waste in the education program identified in Section 3.0 - Public Education and Outreach of this SWMP, including oil and toxic materials. The following BMPs will continue to be implemented as part of both programs.

BMP 38: Continue to implement an education program for industrial users on oil and toxic materials disposal.

BMP 39: Continue to implement educational program aimed at residential audiences to promote the proper disposal of oil and household toxic materials.

Public Reporting (Permit Requirement 4.2.3.9.): Salt Lake City will continue to provide the public with a hotline for reporting spills and illicit discharges. Reports may be called into SLCDPU 24-hour dispatch, 801-483-6700. Calls can also be made to the State Department of Environmental Quality, 801-536-4100; Salt Lake County, 801-313-6600; to the National Response Center (Major Chemical Release, 1-800-536-4123); or to 911. In addition, the City has an app for mobile phones available at (www.slcgov.com/slcmobile) that can be used to identify and report incidents.

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BMP 34: Continue to implement the formal spill response plan. Incorporate elements of the existing Hazardous Materials Spill response plan.

BMP 37: Continue to implement a program to promote public reporting of illicit discharges.

Spill/Illicit Discharge Response Procedure (Permit Requirement 4.2.3.9.1): The Salt Lake City Storm Water Quality Program will continue to update and provide the *Spill Incident Response Contact List* for internal use in the Department.

BMP 35: Maintain a list of certified contractors, suppliers and contracting procedures to respond to containment and cleanup of spilled materials.

BMP 40: Continue procedure for reporting and investigating possible exfiltration of sanitary sewage to the storm drain system.

5.1.4 PROGRAM EVALUATION AND ASSESSMENT

Objective: Evaluate and assess the IDDE program for effectiveness and determine any necessary modifications.

Permit Requirement: 4.2.3.5.1, 4.2.3.6.1, & 4.2.3.10. – Illicit Discharge Detection and Elimination

Description: Salt Lake City currently maintains documents on SharePoint and the City server. Regardless of the software the City elects to use, it shall continue to maintain a database for mapping and tracking the number and type of spills or illicit discharges identified and inspections conducted and detail those in the Annual Report.

IDDE Documentation (permit requirement 4.2.3.10): The City will continue to generate IDDE reports using the “I auditor” application. These reports will be filed and all IDDEs are to be plotted on the Storm Water Quality GIS map. In addition to the reports and mapping, all IDDEs will continue to be tracked in the IDDE tracking spreadsheet and documented in the Annual Report.

BMP 25: Maintain records and a computerized database of all illicit connection/discharges investigations and enforcement.

5.1.5 ILLICIT DISCHARGE DETECTION AND ELIMINATION TRAINING

Objective: Provide IDDE training for appropriate personnel.

Permit Requirement: Part 4.2.3.11 – Illicit Discharge Detection and Elimination

Description: Salt Lake City will provide annual training to applicable employees with regards to the IDDE program, including field personnel who may come into contact with an illicit discharge or connection; and office personnel who may receive reports or questions about illicit discharges. The training will include identification, investigation, termination, clean up, and reporting of illicit discharges.

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BMP 36: Provide OSHA HAZWOPER training to selected personnel.

BMP 40: Continue procedure for reporting and investigating possible exfiltration of sanitary sewage to the storm drain system.

5.2 IMPLEMENTATION STATUS

Measurable goals for BMPs to be implemented during the permit term are presented in **Table 5.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule.

Table 5.1 Implementation Status for Illicit Discharge Detection and Elimination Program

| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|--|--|--|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| X | X | X | X | X | BMP 2: Inspect all major storm drains and detention basins within the permit cycle. | <ul style="list-style-type: none"> To keep all of the major storm drains and detention basins in repair and clean of any debris or sediment that may keep them from efficient operation. | The Cityworks® Work Order System will be used for keeping track of all of the major storm drains and detention basins inspected, and document any repairs or cleanup. | SLCDPU Storm Water Maintenance and Storm Water Quality Program |
| X | X | X | X | X | BMP 9: Conduct annually training for drainage system maintenance personnel | <ul style="list-style-type: none"> To ensure that storm drainage maintenance personnel are aware of their responsibility in maintaining storm water quality as work is performed. | The measurement for this BMP is the training provided for maintenance personnel. The quality of the training and topics discussed should focus on BMPs that can be implemented to maintain storm water quality while performing maintenance activities. Another aspect of the training will focus on illicit discharge identification. | SLCDPU Storm Water Maintenance and Storm Water Quality Program |
| X | X | X | X | X | BMP 10: Continue a program for the disposal of sediments from storm drain cleaning. | <ul style="list-style-type: none"> To ensure proper disposal of sediments from storm drain cleaning in an efficient and environmentally sound manner. | The measurement for this BMP is the number of loads and volume that are properly de-watered and hauled to the landfill for disposal. This disposal method is used to dispose of the sediment in an environmentally sound manner. | SLCDPU Storm Water Maintenance Program |
| X | X | X | X | X | BMP 21: Continue education program on the proper use of pesticides and fertilizers. | <ul style="list-style-type: none"> To have an education program available to educate residents, commercial applicators, and municipal agencies regarding the proper use of pesticides, fertilizers, and herbicides. | The measurement for this BMP is the education provided to the various groups applying pesticides, fertilizers, and herbicides. As these groups become educated, products are properly used and the pollutants from over application are mitigated. | SLCDPU Storm Water Quality Program |
| X | X | X | X | X | BMP 22: Continue SWMP program similar to the | <ul style="list-style-type: none"> To develop a program similar to the | The measurement for this BMP is the percent of industries with | SLCDPU Storm Water Quality |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|---|--|---|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | pretreatment program. | wastewater pretreatment program that is proactive in working with the businesses in Salt Lake City. The goal is to provide the businesses with information and assistance to help them stay in compliance with storm water objectives. | permits, and the percent of SWPPPs that are implemented. The ability to get businesses to comply and meet storm water standards is very important for the long-term success of the program. The number of inspections, enforcement of illegal discharges, and disconnection of illegal connections is another measurement beneficial to the storm water and pretreatment programs. | Program |
| X | X | X | X | X | BMP 23: Maintain industrial user NAICS/SIC code database. | <ul style="list-style-type: none"> To have an updated listing of local industries having a Standard Industrial Classification Code, (SIC) requiring them to acquire State Industrial UPDES and Salt Lake City storm water permits and a SWPPP implemented. | The measurement of this BMP is the percent of total required industries on the database that obtain permits and meet storm water regulations as a result of contacts made from the use of this data base. | SLCDPU Engineering Division and Storm Water Quality Program |
| X | X | X | X | X | BMP 24: Coordinate with POTW pretreatment program. | <ul style="list-style-type: none"> To work in conjunction with the POTW's pretreatment program working in partnership with the industrial and business community to provide consistent guidance and direction. | The measurement for this BMP is the dissemination of information and consistent guidance given to the regulated business community. The number of illicit connections or illegal discharges found and resolved is another important measurement. | SLCDPU Pretreatment Program and Storm Water Quality Program |
| X | X | X | X | X | BMP 25: Maintain records and database of all illicit connection investigations. | <ul style="list-style-type: none"> The goal of this BMP is to have records and a database of all illicit connections, their enforcement, and resolution for future reference. | The measurement of this BMP is the number of illicit connection investigations and their resolutions. | SLCDPU Storm Water Quality Program |
| X | X | X | X | X | BMP 26: Review all new developments plans for compliance and illicit connections. | <ul style="list-style-type: none"> The goal of this BMP is to insure that all new commercial and industrial development plans are in compliance and that illicit connections to the storm drain are not constructed. | The measurement for this BMP is the number of plans reviewed. | SLCDPU Engineering Division and Storm Water Quality Program |
| X | X | X | X | X | BMP 27: Promote SLCoHD Household Hazardous Waste Facility and Collection Days. | <ul style="list-style-type: none"> To provide the residents of Salt Lake City with a collection day where, they can properly dispose of household hazardous waste. | The measurement for this BMP is the fliers, inserts, and additional information provided by Salt Lake City to promote the Electronic and Household Hazardous Waste Collection at Salt Lake City-County Health Departments permanent facility. | SLCDPU Storm Water Quality Program |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|---|--|---|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| X | X | X | X | X | BMP 28: Continue program for investigating illicit flows and connections. | <ul style="list-style-type: none"> To conduct on-going field screening in the MS4 to resolve any illicit connections or flows. | The measurement for this BMP is the data collected from the area screened during the life of the permit and the illicit flows removed from the MS4. | SLCDPU Storm Water Quality Program |
| X | X | X | X | X | BMP 29: Implement MOU with SLCoHD | <ul style="list-style-type: none"> To have a MOU between Salt Lake City Public Utilities and the Salt Lake County Health department regarding enforcement of state health laws, rules, regulations, and standards applying to the municipal separate storm sewer system. | The measurement for this BMP is the number of illicit discharges and illegal connections that are resolved as a result of this MOU between the two agencies. | SLCDPU Storm Water Quality Program |
| X | X | X | X | X | BMP 30: Maintain staff to respond to reports of illicit discharges. | <ul style="list-style-type: none"> To have a staff available to respond to any illicit discharges and resolve the problem with clean up, and/or Cease and Desist order and or Notice of Violations issued by SLC and or SLCHD. | The measurement for this BMP is the number of illicit discharges that have required response and correction. An additional measurement is the number of trained personnel within the City. | SLCDPU Water Quality Division, Storm Water Quality Program, Stormwater Maintenance Program, Salt lake City Fire and HAZMAT. |
| X | X | X | X | X | BMP 31: Promote interagency cooperation concerning illicit flows investigation. | <ul style="list-style-type: none"> To work together in a cooperative effort with other Regulatory agencies to resolve illicit and or illegal discharges. | The measurement for this BMP is the number of illicit flows investigated and corrected and cooperation between agencies and stakeholders. | SLCDPU Water Quality Division |
| X | X | X | X | X | BMP 32: Pursue prosecutions and court ordered solutions to contamination problems. | <ul style="list-style-type: none"> To resolve significant contamination problems that may require court orders and prosecutions. | The measurement used for this BMP is the number of prosecutions and court ordered solutions that resolve significant contamination problems. | SLCDPU Water Quality Program |
| X | X | X | X | X | BMP 33: Investigate dry weather flows. | <ul style="list-style-type: none"> To Dry Weather Screen the MS4 flows to systematically investigate and remove illicit flows. | The measurement used for this BMP is the portion of the MS4 monitored, and the illicit discharges removed. | SLCDPU Water Quality Program |
| * | * | * | * | * | BMP 36: Provide OSHA HAZWOPER training to selected personnel. | <ul style="list-style-type: none"> To have personnel trained to respond to spills correctly and safely. | The measurement for this BMP is the number of personnel trained to respond to spills. | SLCDPU Water Quality Program |
| X | X | X | X | X | BMP 37: Continue to promote program of public reporting of illicit discharges. | <ul style="list-style-type: none"> To have a program developed that promotes the interest of pollution prevention to the public, and provides information regarding illicit flows and reporting procedures. | The measurement for this BMP is the number of illicit flows reported and resolved. | SLCDPU Water Quality Program |
| X | X | X | X | X | BMP 38: Continue education program for industrial users | <ul style="list-style-type: none"> To have an education program that is | The measurement for this BMP is the number of industries and | SLCDPU Water Quality Program |

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| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|---|--|---|----------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| | | | | | on oil and toxic materials disposal. | targeted to industry and business audiences encouraging proper disposal of oil and toxic materials. | businesses that are educated and properly disposing oil and toxic materials. | | |
| X | X | X | X | X | BMP 39: Continue education for residential users on oil and toxic materials disposal. | <ul style="list-style-type: none"> To have an education program aimed at residential audiences to promote the proper disposal of oil and household toxic materials. | The measurement for this BMP is the number of residents that are educated and properly disposing of material at the Household Hazardous Waste Facility. | SLCDPU Water Quality Program | |
| X | X | X | X | X | BMP 40: Continue reporting and investigating infiltration of sanitary sewage to storm drains. | <ul style="list-style-type: none"> To eliminate infiltration from the sanitary sewer into the storm drain system. | The measurement for this BMP is the number or problems resolved regarding infiltration of sanitary sewage to the storm drain system. The aggregate portion of the collection system investigated is another measurement. | SLCDPU Water Quality and pretreatment program | |
| X | X | X | X | X | BMP 44: Staff a position for coordinating storm water pollution prevention. | <ul style="list-style-type: none"> To have a full time position available to work with industries to minimize the pollutants released to the Salt Lake City storm drain. | The measurement for this BMP is staffing the positions | SLCDPU Water Quality Program | |
| X | X | X | X | X | BMP 50: For City projects identify erosion control measures as a specific bid item. | <ul style="list-style-type: none"> To have consistent erosion control measures for City projects. | The measurement for this BMP is the City projects that have erosion control measures as specific bid items. | SLCDPU Water Quality Program and Engineering Division | |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

6.0 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL

Salt Lake City will continue to implement a *Construction Site Storm Water Runoff Program* to reduce pollutants to the MEP in any storm water runoff to the MS4 from construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

6.1 DESCRIPTION

This program also will be integrated with the Public Education and Outreach Program and the Long-term Storm Water Management Program to provide storm water information and permit compliance information to the public, contractors and developers. The following BMPs describe implementation tasks and assessment tasks to be completed by Salt Lake City for the Construction Site Storm Water Runoff Control Program. Progress towards the measurable goals will be documented in the Annual Report.

6.1.1 CONSTRUCTION SITE STORM WATER RUNOFF CONTROL ORDINANCE

Objective: To have legal authority to regulate and enforce construction activities with the intent to reduce pollutants from storm water runoff.

Permit Requirement: Part 4.2.4.1., 4.2.4.2.1, 4.2.4.1.1, 4.2.4.1.2, and 4.2.4.2

Description: Salt Lake City Storm Water Ordinance 53, Title 2 & 17 defines regulation for construction site storm water runoff controls including: requirements for BMPs, the development and implementation of a SWPPP, right of entry for inspections, escalating enforcement, and state and local permitting requirements. The Ordinance requires that construction sites meet the most current version of the UPDES permit for construction activities. An SOP or similar document shall be developed and implemented to detail the enforcement strategy.

BMP 12: Enforce the requirements of Salt Lake City Ordinances.

BMP 32: Pursue prosecutions and court ordered solutions to significant contamination problems.

6.1.2 PRE-CONSTRUCTION SWPPP AND PLAN REVIEW

Objective: Conduct Pre-construction reviews of SWPPP and plans to ensure BMPs are developed to minimize the impact to the MS4.

Permit Requirements: 4.2.4.3., 4.2.4.3.2, 4.2.4.3.3, 4.2.4.3.4 & 4.2.4.4.3 – Construction Site Storm Water Runoff Control

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Description: The City will continue to have a SWPPP and plan review process as well as look for opportunities to encourage the use of LID and GI from construction sites with a land disturbance of greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

Pre-construction Review (Permit Requirement 4.2.4.3 & 4.2.4.3.1): Salt Lake City will continue SWPPP and Plan review, as well as develop an SOP or similar document for pre-construction review for all construction sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a common plan of development or sale (Appendix D).

BMP 13: Prepare Standard BMPs for site development.

BMP 47: Review construction site BMPs and implement BMPs guidance document that can be used in the Salt Lake area. Coordinate with Salt Lake County.

BMP 48: Continue program for obtaining and reviewing SWPPPs prepared by contractors for projects disturbing more than one acre.

Checklist (Permit Requirement 4.2.4.3.2): Salt Lake City will continue to implement the use of a checklist during pre-construction reviews to ensure storm water quality issues are addressed (See appendix D).

Low Impact Design (Permit Requirement 4.2.4.3.3): Salt Lake City will look for opportunities to encourage LID and GI.

Priority Construction Sites (Permit Requirement 4.2.4.3.4 & 4.2.4.4.3): Sites that discharge directly into or immediately upstream of waters that the state recognizes as impaired shall be identified as *Priority Construction Sites*. Inspections for these sites shall be conducted every two weeks using an approved inspection form checklist.

6.1.3 CONSTRUCTION SITE INSPECTIONS AND ENFORCEMENT

Objective: Reduce storm water pollution from construction activities through inspections and enforcement actions.

Permit Requirements: Part 4.2.4.4. – Construction Site Storm Water Runoff Control

Description: Salt Lake City Storm Water staff will continue to provide construction site inspections on a monthly basis as needed. Inspections will include a review of the SWPPP, verification of compliance to permit requirements, and implementation of erosion and sediment controls along with any other BMPs in place to prevent pollution to the MS4. SOPs or similar documents will be developed to address inspections and enforcement.

BMP 44: Staff a position for coordinating storm water pollution prevention.

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BMP 49: Develop an interdepartmental MOU addressing the enforcement of construction activity erosion control plans and SWPPP.

BMP 50: Identify erosion control measures as a specific item in contract bid schedules and performance bond requirements.

Construction Site Inspection & Enforcement SOPs (Permit Requirement 4.2.4.2, 4.2.4.2.1, 4.2.4.2.2, & 4.2.4.4.): Salt Lake City will continue to inspect and enforce construction sites through ordinance or other regulatory mechanisms to ensure compliance with State and City permit requirements. SOPs for inspections and enforcement shall meet 2015 Permit requirement and will include, but are not limited to: measures to control erosion and sediment, escalating enforcement, and inspections throughout all phases of construction activity (See Appendix D).

6.1.4 CONSTRUCTION SITE STORM WATER TRAINING

Objective: Provide applicable training to personnel and their roles in regards to the Construction Site Storm Water Runoff Control Program.

Permit Requirements: 4.2.4.5 – Construction Site Storm Water Runoff Control

Description: The City will provide training as applicable for personnel regarding construction activities, including: permitting, plan review, construction site inspections, and enforcement. Training shall extend to third-party inspectors and plan reviewers as well. City Inspectors that conduct storm water quality inspections at construction sites are to obtain and maintain RSI certification. The following BMPs will continue to be implemented to employees are adequately trained.

BMP 46: Continue training program for site development review personnel to expand their knowledge of storm water pollution prevention techniques and practices.

BMP 51: Participate in education training and seminars conducted by the State of Utah and other agencies. Participate in a joint education program with Salt Lake County.

6.1.5 RECORDS KEEPING

Objective: Maintain records of construction sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a common plan of development or sale.

Permit Requirements: Part 4.2.4.2.2 & 4.2.4.6 – Construction Site Storm Water runoff Control

Description: Salt Lake City will continue to update and maintain tracking and documentation of all required and relevant construction sites that disturb greater than or equal to one acre, including projects less than one acre that are part of a common plan of development or sale. In 2015 the City began implementing the Cityworks® software program to track construction site inspections. Records for site plan reviews, SWPPPs, inspections and enforcement actions will continue to be maintained. These records will be kept for at least five years or until construction is complete, whichever is longer.

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6.2 IMPLEMENTATION STATUS

Measurable goals for this BMP to be implemented and assessed during the permit term are presented in **Table 6.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 6.1 Implementation Status for Construction Site Storm Water Runoff Control

| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|---|--|--|------------------------------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| * | * | * | * | * | | BMP 12: Enforce the requirements of Salt Lake City Ordinances | <ul style="list-style-type: none"> To provide protection, preservation, proper maintenance, and use of Salt Lake City's Water courses, lakes, ponds, floodplain, and wetland areas to include downstream drainage areas for present and future residents of Salt Lake City. | The measurement for this BMP is the approval of required plans, and enforcement of the ordinance. Soils reports identifying soil stability, drainage control plans, and site grading and excavation plans must be submitted and approved prior to any work being done. | SLCDPU Water Quality Program |
| x | x | x | x | x | | BMP 13: Prepare Standard BMPs for site development. | <ul style="list-style-type: none"> To have a set of standard construction BMPs that are available to developers and engineering consultants that may be used to enhance storm water quality. | The measurement of this BMP is the quality of the guidance document and the BMPs that are implemented during site development as a result of this document. | SLCDPU Water Quality Program |
| * | * | * | * | * | | BMP 32: Pursue prosecutions and court ordered solutions to significant contamination problems. | <ul style="list-style-type: none"> To resolve significant contamination problems that may require court orders and prosecutions. | The measurement used for this BMP is the number of prosecutions and court ordered solutions that resolve significant contamination problems. Salt Lake City has had one case where we worked with the Salt Lake Valley Health Department regarding a court ordered solution. | SLCDPU Water Quality Program |
| x | | | | | | BMP 44: Staff a position for coordinating storm water pollution prevention | <ul style="list-style-type: none"> To have a full time position available to work with industries to minimize the pollutants released to the Salt Lake City storm drain. | The measurement for this BMP is staffing the positions | SLCDPU Storm Water Quality Program |
| | x | | | | | BMP 46: Develop a storm water quality-training program for development review personnel. | <ul style="list-style-type: none"> To expand the knowledge of site development review personnel regarding storm water pollution prevention techniques and practices. | The measurement for this BMP is the training provided to the development review personnel. The quality of the training and topics discussed should focus on storm water quality techniques and practices for site development. | SLCDPU Water Quality Program |
| x | x | x | x | x | | BMP 47: Coordinate with Salt Lake County to develop construction site BMP guidance manual. | <ul style="list-style-type: none"> To have a guidance manual for BMPs at construction sites that can be used by contractors in the Salt Lake area. | The measurement for this BMP is the quality of the guidance document and the BMPs at construction sites that are implemented as a result of this document. | SLCDPU Water Quality Program |

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| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|---|--|---|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| | x | | | | | BMP 48: Develop a process for obtaining and reviewing SWPPP prepared by contractors. | <ul style="list-style-type: none"> To obtain SWPPPs prepared by contractors on all sites in Salt Lake City disturbing more than one acre. | The measurement for this BMP is the number of construction sites which meet the greater than 1 acre criteria, and or part of a CPoD that have developed and implemented a SWPPP. | SLCDPU Water Quality Program |
| x | | | | | | BMP 49: Develop interdepartmental SOP/SOI for enforcement of SWPPP. | <ul style="list-style-type: none"> To have an interdepartmental understanding of addressing the enforcement of construction activity erosion control plans and SWPPPs. | The measurement for this BMP is an SOP/SOI that clearly defines the procedures for enforcement of the SWPPP, and the number of enforcement actions taken. | SLCDPU Water Quality Program |
| * | * | * | * | * | | BMP 50: For City projects identify erosion control measures as a specific bid item. | <ul style="list-style-type: none"> To have consistent erosion control measures for City projects. | The measurement for this BMP is the City projects that have erosion control measures as specific bid items. | SLCDPU Water Quality Program and Engineering Division |
| * | * | * | * | * | | BMP 51: Participate in education training and seminars conducted by the State of Utah and other agencies. Participate in a joint education program with Salt Lake County. | <ul style="list-style-type: none"> To share information and new techniques through storm water seminars. | The measurement of this BMP is the training and dissemination of information made available to Salt Lake City storm water personnel. | SLCDPU Water Quality Program |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

7.0 LONG-TERM STORM WATER MANAGEMENT IN NEW DEVELOPMENT AND REDEVELOPMENT (POST-CONSTRUCTION STORM WATER MANAGEMENT)

New development and redevelopment areas can impact storm water quality because of increased runoff and resulting higher flow velocities. The Long-Term Storm Water Management in New Development and Redevelopment Program addresses post construction storm water runoff to the MS4 from new development and redevelopment construction sites disturbing greater than or equal to one acre, including projects less than one acre that are part of a common plan of development or sale with the intent to control flow and improve water quality by requiring post construction storm water controls to limit the discharge rate to mirror the pre-development hydrology of the previously undeveloped site.

7.1 DESCRIPTION

Salt Lake City will address long term post-construction controls in accordance with the Construction Site Storm Water Runoff Control Program through ordinance and other mechanisms including; plan review for new development and redevelopment sites, inventory of post construction storm water controls, an inspection and enforcement program, structural and non-structural BMPs, and a training program for applicable personnel. Progress towards measurable goals will be detailed in the Annual Report.

7.1.1 LONG-TERM STORM WATER MANAGEMENT ORDINANCE

Objective: Reduce pollutants in storm water runoff from post construction sites.

Permit Requirement: Part 4.2.5.1., 4.2.5.2., 4.2.5.3.1, and 4.2.5.5.1 – Long-term Storm water Management in New Development and Redevelopment

Description: Implement and enforce City ordinances in regard to post-construction storm water controls.

Ordinances (Permit Requirement 4.2.5.1 & 4.2.5.5.1): The following Salt Lake City Ordinances are meant to give legal authority to enforce requirements intended to reduce impacts to storm water quantity and quality for new development and redevelopment projects.

- Salt Lake City Ordinance 53, Title 2 and 17: Sections of this ordinance include requirements for any person required to obtain an UPDES permit comply with all provisions of said permit, and includes access for inspections and enforcement actions against violations.
- Salt Lake City Zoning Ordinance Chapter 21A.34.130 (Riparian Corridor Overlay District): This ordinance establishes a special overlay district for all lands near and adjacent to watercourses, lakes, ponds, flood plains and wetland areas. One of the stated purposes of the overlay zone is to improve water quality, both by filtering and storing sediments and attached pollutants, nutrients, and compounds before they drain into streams or wetlands, and by maintaining the natural pollutant assimilating capacities of stream, flood plains and wetlands.

BMP 12: Enforce the requirements of Salt Lake City Ordinances.

Enforcement Strategy and SOP (Permit Requirement 4.2.5.2 & 4.2.5.2.1): Implement enforcement policies outlined in Salt Lake City Ordinance 53, Title 17, Chapter 17.84 and 17.87 as well as develop an SOP that further details the escalating enforcement process.

7.1.2 SITE PLAN REVIEW

Objective: Review all plans for new development and redevelopment projects for Long-Term Post-Construction BMPs

Permit Requirement: Part 4.2.5.3., 4.2.5.4.1., 4.2.5.4.2. & 4.2.5.4.3. – Long-term Storm water Management in New Development and Redevelopment
Part 4.2.4.3.1 – Construction Site Storm water Runoff Control

Description: Require and implement Long-Term Post-Construction BMPs during the plan review process.

Structural and Non-structural BMPs (Permit Requirement 4.2.5.3.1 & 4.2.5.3.2): Salt Lake City will implement non-structural BMPs as part of the review process for construction Permits. Examples of non-structural BMPs include the following:

- Minimize development in areas susceptible to erosion and sediment loss
- Minimize the disturbance of native soils and vegetation
- Preserve areas that provide important water quality benefits
- Implement measures for flood control
- Protect the integrity of natural resources and sensitive areas

Salt Lake City will implement structural BMPs as part of the construction review process as applicable. The following BMPs will continue to be implemented to reduce and control storm water quality and quantity:

BMP 11: Continue the requirement of on-site detention or retention for developments with impervious area greater than 15,000 square feet.

BMP 12: Enforce the requirements of Salt Lake City Ordinances.

BMP 18: Review proposed street maintenance projects for applicability of structural BMPs such as grassed swales and detention basins.

BMP 26: Review all new development plans for compliance and illicit connections

Encourage Low Impact Design and Green Infrastructure (4.2.5.3.2): Salt Lake City will continue to look for opportunities to encourage the use of LID and GI when reviewing projects for new construction permits as well as when facility upgrade plans are submitted.

Retrofit Plan (Permit Requirement 4.2.5.3.3): The City will develop a plan to address the potential of retrofitting existing developed sites that disturb greater than or equal to one acre,

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including projects less than one acre that are part of a larger common plan of development or sale that are adversely impacting water quality.

In regards to evaluating potential retrofit projects the following BMPs will continue to be implemented.

BMP 19: Develop a formal procedure for evaluating water quality aspects of all storm water capital improvements. Develop a list of applicable structural BMPs that may be used to enhance storm water quality.

BMP 20: Review existing detention basins to determine if modifications are feasible to enhance storm water quality.

Calculating Runoff Volumes (Permit Requirement 4.2.5.3.4): Salt Lake City requires developments with impervious areas greater than 15,000 square feet to provide onsite detention facilities to limit the discharge to a pre development rate of 0.2 cfs/acre during the 100 year storm. This regulation has been in place since 1978. The use of onsite detention promotes the reduction of the rate and volume of storm water discharges and improves storm water quality by reducing the post development run off velocities and resulting sediment transportation. The basins also collect floatable debris and litter before it can be discharged to a receiving water.

SWPPP Review for Long-Term Storm Water Management Measures (Permit Requirement 4.2.5.4.1): Salt Lake City will review SWPPPs of applicable New and Redevelopment sites with the intent to implement the use of Long-Term Management Measures. This will include proposed long-term BMP maintenance plans.

Preferred Design Specifications (Permit Requirement 4.2.5.4.2 & 4.2.5.4.3): In 2012, Salt Lake City developed a Design Standards and Processes Manual. Section 2.2.2 of the manual addresses Storm water controls, including additional options and requirements for flood control, volume reduction, and storm water quality. The City recommends the consideration of Green GI or LID to meet these goals.

BMP 13: During the review of drainage plans, consider measures that will improve storm water quality. Prepare a set of standard BMPs that may be used to enhance storm water quality. Make these plans available to developers and their engineering consultants

BMP 47: Review construction site BMPs and implement BMPs guidance document that can be used in the Salt Lake area.

7.1.4 LONG-TERM STORM WATER MANAGEMENT INSPECTION AND ENFORCEMENT

Objective: Inspect long-term storm water management measures to ensure adequate long-term operation and maintenance.

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Permit Requirement: Part 4.2.5.5.1., 4.2.5.5.2. & 4.2.5.5.3. – Long-term Storm water Management in New Development and Redevelopment

Description: Continue to inspect and enforce post-construction storm water management measures and implement SOPs.

Long-term Storm Water Management Inspections (Permit Requirement 4.2.5.5.): Salt Lake City shall inspect all applicable permanent structural BMPs at least once during installation; and once every five years thereafter. Inspections and records will continue to be documented and maintained. Inspections shall include the following documentation:

- Inspection Date
- Name and signature of inspector
- Project location
- Current owner information
- A description of the condition of the storm water control measure
- Specific maintenance issues or violations

BMP 14: Continue an annual review procedure to inspect private drainage detention basins to ensure control structures are in place and functioning properly.

Ordinance Provision for Inspections on Private Property (Permit Requirement 4.2.5.5.1): Title 17, Chapter 17.84.500 – Inspection Right of Entry, grants legal authority to be allowed access to applicable sites during both construction phase and post-construction phase for inspections of long-term storm water BMPs as outlined in the ordinance.

Long-Term Storm Water Management Enforcement (Permit Requirement 4.2.5.5.): Title 17, Chapter 17.87, addresses violations in the ordinance to any long-storm water management issues that may adversely affect storm water quality. Enforcement of violations may also include the removal of any storm water impact fee discount the owner/operator may be receiving if they have BMPs that detain or retain storm water.

Inspection and Enforcement SOPs (Permit Requirement 4.2.5.5.): Salt Lake City will continue to develop and implement an SOP that details the inspection and enforcement process for Long-Term Storm Water Management.

7.1.5 POST-CONSTRUCTION STORM WATER MANAGEMENT EMPLOYEE TRAINING

Objective: Provide adequate training for personnel involved in post-construction storm water management.

Permit Requirement: Part 4.2.5.6. – Long-term Storm water Management in New Development and Redevelopment

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Description: Salt Lake City will provide training for applicable personnel with regards to storm water management, plan review, and inspections and enforcement. Training records shall be documented and maintained. The following BMP will continue to be implemented for training:

BMP 46: Continue training program for site development review personnel to expand their knowledge of storm water pollution prevention techniques and practices.

7.1.6 LONG-TERM STORM WATER BMP INVENTORY

Objective: Maintain an inventory of post-construction structural storm water control measures.

Permit Requirement: Part 4.2.5.7., 4.2.5.7.1, & 4.2.5.7.2 – Long-term Storm water Management in New Development and Redevelopment

Description: Salt Lake City will continue to maintain an inventory of long-term storm water control measures for applicable new development and redevelopment sites, and will update this inventory as necessary per inspections. The inventory will include the following information:

- Project name
- Owner name and contact information
- Location
- Start and end date
- Description of each storm water control measure/BMP
- Description of maintenance requirements
- Inspection information

7.2 IMPLEMENTATION STATUS

Measurable goals for this BMP to be implemented and assessed during the permit term are presented in **Table 7.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 7.1 Implementation Status for Long-Term Storm water Management Program

| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|--|--|----------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| X | X | X | X | X | BMP 11: Continue requirements for on-site detention for developments. | <ul style="list-style-type: none"> • To improve water quality by engineering on-site storage facilities, which are designed to improve water quality and allow a more controlled runoff discharge through storm drain piping or groundwater recharge. | The measurement for this BMP is the number of drainage plans approved. | SLCDPU Water Quality, GIS, and Engineering Divisions | |
| X | X | X | X | X | BMP 12: Enforce the requirements | <ul style="list-style-type: none"> • To provide protection, preservation, proper | The measurement for this BMP is the approval of required plans, | SLCDPU Water Quality, GIS, and | |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|---|--|--|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | of Salt Lake City Ordinances. | maintenance, and use of Salt Lake City's Water courses, lakes, ponds, floodplain, and wetland areas to include downstream drainage areas for present and future residents of Salt Lake City. | and enforcement of the ordinance. Soils reports identifying soil stability, drainage control plans, and site grading and excavation plans must be submitted and approved prior to any work being done. | Engineering Divisions |
| x | x | x | x | x | BMP 13: Prepare Standard BMPs for site development. | <ul style="list-style-type: none"> To have a set of standard construction BMPs that are available to developers and engineering consultants that may be used to enhance storm water quality. | The measurement of this BMP is the quality of the guidance document and the BMPs that are implemented during site development as a result of this document. | SLCDPU Water Quality Division |
| X | X | X | X | X | BMP 14: Continue annual review program for private drainage detention facilities. | <ul style="list-style-type: none"> To ensure that control structures are in place and functioning properly on private drainage detention basins to protect water quality and meet 100-year, 24-hour storm event runoff requirements. | The measurement for this BMP is the inspections on the private detention basins to insure control structures are in place and functioning properly. | SLCDPU Water Quality, GIS, and Engineering Divisions |
| X | X | X | X | X | BMP 18: Review proposed street projects for applicability of structural BMPs. | <ul style="list-style-type: none"> The goal of this BMP is to review all street maintenance projects for applicability of installation of structural BMPs such as grass swales and detention basins to reduce pollutants. | The measurement of this BMP is that 100% of all street maintenance projects are reviewed and inspected with structural BMPs installed. As these structural BMPs are installed, the key measurement is the reduction of pollutants transported into the rivers and streams. | SLCDPU Water Quality, GIS, and Engineering Divisions |
| X | X | X | X | X | BMP 19: Review all proposed storm water projects for applicability of structural BMPs. | <ul style="list-style-type: none"> The goal of this BMP is to develop the best methodology for evaluating and improving water quality on all storm water capital projects. | The measurement of this BMP is the number of storm water projects reviewed and the impact the capital improvements have on improving water quality discharging to the receiving water bodies | SLCDPU Water Quality, GIS, and Engineering Divisions |
| * | * | * | * | * | BMP 20: Review detention basins for feasibility of retrofitting for water quality enhancements. | <ul style="list-style-type: none"> To review and develop a plan regarding the feasibility of retrofitting existing detention basins for water quality enhancements. | The measurement for this BMP is the review process of existing structural controls and implementation of retrofits to the structures to enhance storm water quality. | SLCDPU Water Quality, GIS, and Engineering Divisions |
| X | X | X | X | X | BMP 26: Review all new developments plans for compliance and illicit connections. | <ul style="list-style-type: none"> The goal of this BMP is to insure that all new commercial and industrial development plans are in compliance and that illicit connections to the storm drain are not constructed. | The measurement for this BMP is the number of plans reviewed. | SLCDPU Water Quality, GIS, and Engineering Divisions |
| X | X | X | X | X | BMP 46: Continue a storm water quality-training program for development review personnel. | <ul style="list-style-type: none"> To expand the knowledge of site development review personnel regarding storm water pollution prevention techniques and practices. | The measurement for this BMP is the training provided to the development review personnel. The quality of the training and topics discussed should focus on storm water quality techniques | SLCDPU Water Quality, GIS, and Engineering Divisions |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|---|--|--|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | | | and practices for site development. | |
| X | X | X | X | X | BMP 47: Coordinate with Salt Lake County regarding BMP guidance information for construction sites. | <ul style="list-style-type: none"> To have a guidance manual for BMPs at construction sites that can be used by contractors in the Salt Lake area. | The measurement for this BMP is the quality of the guidance document and the BMPs at construction sites that are implemented as a result of this document. | SLCDPU Water Quality, GIS, and Engineering Divisions |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

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8.0 POLLUTION PREVENTION AND GOOD HOUSEKEEPING FOR MUNICIPAL OPERATIONS

Salt Lake City's Pollution Prevention and Good Housekeeping for Municipal Operations Program (O & M) will address City-owned and operated facilities, City operations and maintenance activities, and training for applicable City personnel. The ultimate goal of the program is to prevent or reduce pollutant runoff to the MEP from all City-owned or operated facilities and operations.

8.1 DESCRIPTION

The City will maintain and prioritize an inventory of City-owned and operated facilities and storm water controls, continue to develop and implement BMPs for operations and maintenance personnel, provide training to applicable staff, and develop SOPs in regards to the O & M program.

8.1.1 FACILITY INVENTORY

Objective: Continue to Develop and maintain an inventory of all City-owned and/or operated facilities.

Permit Requirement: Part 4.2.6.1. & 4.2.6.2.

Description: Salt Lake City will maintain and update an inventory of all City-owned or operated facilities and storm water controls including those mentioned in section 4.2.6.1 of the 2015 permit. The City will review and update the inventory annually.

8.1.2 PRIORITY FACILITY IDENTIFICATION AND SOPS

Objective: To identify priority City-owned or operated facilities and develop and implement facility-specific SOPs or similar type documents.

Permit Requirement: Part 4.2.6.2, 4.2.6.3., 4.2.6.4. & 4.2.6.5. - Pollution Prevention & Good Housekeeping for Municipal Operations

Description: The City will identify priority facilities whose potential for discharge of storm water pollutants warrants additional procedures or measures to reduce or eliminate impacts to storm water quality.

Identify Priority Facilities (Permit Requirement 4.2.6.3): Based on the assessment of City-owned or operated facilities the city will identify those facilities and/or operations that have the highest potential to generate storm water pollutants. These priority facilities will be documented, listed and updated as necessary

Priority Facility-specific SOPs (Permit Requirement 4.2.6.4): Facility-specific SOPs will be developed for each identified priority facility and LID techniques shall be considered for all new and redeveloped City-owned or operated facilities.

Priority facilities shall include:

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Buildings and Facilities (Permit Requirement 4.2.6.4.1): Salt Lake City will develop and implement SOPs for building and facility maintenance and operations as well as maintain good housekeeping practices. Facilities including but not limited to: fire, utilities, police, pools, and parking garages.

BMP 34: Develop a formal storm drain spill response plan.

Material Storage, Heavy Equipment Storage and Maintenance Areas (Permit Requirement 4.2.6.4.2): Salt Lake City will develop and implement SOPs for these facilities/areas.

BMP 16: Review the storm water management around street deicing salt piles

Parks and Open Space (Permit Requirement 4.2.6.4.3): SOPs will be developed and implemented with the intent to address potential storm water quality pollutants to the MEP associated with Parks and Open Space areas, including: chemical application, good housekeeping practices, proper waste disposal, management of trash containers, equipment maintenance, and building exteriors.

Vehicle and Equipment (Permit Requirement 4.2.6.4.4): The City will develop and implement SOPs for activities associated with vehicle maintenance and repair.

Roads, Highways and Parking Lots: The City will develop and implement SOPs as needed to address City-owned roads, highways and parking lots, and any other activities or maintenance associated with these facilities that may affect water quality.

BMP 5: Continue to clean leaves from the gutters and inlets during the fall leaf season.

BMP 15: Continue with the existing street sweeping program.

Storm Water Collection and Conveyance System (Permit Requirement 4.2.4.6): SOPs will be developed and implemented to address inspections, cleaning and repair of the storm water system including catch basins, pipes, ditches and canals, culverts and structural BMPs. Structural BMPs will be inspected on an annual basis. More frequent inspections and maintenance will occur in those areas deemed as higher priority based on water quality concerns and the amount and type of material that typically accumulates in an area. The City will continue to document disposal of all debris removed from the storm water conveyance system.

BMP 1: Continue with the present schedule of drainage system maintenance. Clean all required portions of the system.

BMP 2: Inspect all major storm drains and detention basins within the permit cycle.

BMP 7: Encourage and support citizen clean up days of selected waterways and channels.

BMP 8: Use the Cityworks® work order system to track and schedule storm drain maintenance activities.

BMP 10: Develop and use environmentally sound disposal program for sediments and debris removed from storm drain facilities during regular scheduled maintenance.

8.1.3 HIGH PRIORITY FACILITY OPERATIONS AND MAINTENANCE INSPECTION PROGRAM

Objective: Reduce pollutants from City-owned or operated high priority facilities.

Permit Requirement: 4.2.6.6, 4.2.6.6.1, 4.2.6.6.2, & 4.2.6.6.3 – Pollution Prevention and Good Housekeeping for Municipal Operations

Description: High priority facilities will have dedicated personnel familiar with their facilities and operations to conduct inspections, including:

Weekly Visual Inspections: Weekly visual inspections of high-priority facilities will be conducted as part of the SOPs and will include storm water BMPs, evidence of spills, etc. Records of these inspections will be maintained.

Quarterly Comprehensive Inspections: Comprehensive inspections will be conducted as part of the SOPs on a quarterly basis at the high-priority facilities. These inspections will include storm water controls for waste storage areas, dumpsters, vehicle and equipment maintenance/fueling areas, material handling areas, etc. Any deficiencies identified will be corrected and documented in the inspection report. Records of these inspections will be maintained.

Quarterly Visual Observation of Storm water Discharges: Quarterly visual observations of the quality of storm water discharges will be conducted during the wet season at the high-priority facilities as part of the SOPs. Observations will be conducted and will be documented. Efforts will be made to remedy any observed problems as appropriate. Reports of these observations will be maintained.

8.1.4 WATER QUALITY ASSESSMENT OF FLOOD CONTROL PROJECTS

Objective: Continue to review new flood management structural controls and the consideration of potential retrofits for existing controls with the intent to reduce pollutants in storm water runoff.

Permit Requirement: Part 4.2.6.7. – Pollution Prevention and Good Housekeeping for Municipal Operations

Description: This section is integrated with the Long-term Storm water Management Program (Section 7.1.2- Site Plan Review) and will compliment the management of long-term structural BMPs owned/operated by the City. The City will develop and implement a process that considers potential impacts to water quality and hydrology when assessing new flood management projects and existing structural controls.

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Flood Management Project Assessment and Existing Structural Control Evaluation (4.2.6.7.1): Salt Lake City Storm Water Utility conducted a complete basin and master planning effort with the Preparation of Part 2 of the original Permit application. The use of structural components to enhance storm water quality will be considered during the selection of recommended flood control improvements. The following BMPs will be implemented to meet task objectives:

BMP 19: Develop a formal procedure for evaluating water quality aspects of all storm water capital improvements. Develop a list of applicable structural BMPs that may be used to enhance storm water quality.

BMP 20: Review existing detention basins to determine if modifications are feasible to enhance storm water quality.

8.1.5 CITY CONSTRUCTION PROJECTS

Objective: To ensure all City construction projects comply with the UPDES general construction permit.

Permit Requirement: Part 4.2.6.8 – Pollution Prevention and Good Housekeeping for Municipal Operations

Description: City construction projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale will be required to meet the criteria and be covered under the UPDES Storm water General Permit for Construction Activities.

BMP 17: Continue procedures for monitoring storm water management on Public construction projects.

BMP 18: Review proposed street maintenance projects for applicability of structural BMPs such as grassed swales and detention basins.

8.1.6 EMPLOYEE TRAINING

Objective: Provide training for Salt Lake City employees who have primary construction, operation, or maintenance job functions that are likely to impact storm water quality.

Permit Requirement: Part 4.2.6.9. – Pollution Prevention and Good Housekeeping for Municipal Operations

Description: The City will continue to provide training for employees whose primary roles are likely to impact storm water quality. The following BMPs addressing employee training will continue to be implemented:

BMP 9: Conduct training seminar for maintenance personnel on their role in maintaining storm water quality.

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BMP 36: Provide OSHA HAZWOPER training to selected personnel.

8.2 IMPLEMENTATION STATUS

Measurable goals for this BMP to be implemented and assessed during the permit term are presented in **Table 8.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the scheduled identified.

Table 8.1 Implementation Status for Pollution Prevention/Good Housekeeping Program

| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|---|---|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| X | X | X | X | X | BMP 1: Clean all required portions of the drainage system every 5 years. | <ul style="list-style-type: none"> To keep the storm drainage conveyances clean and clear of debris, and minimize organic matter and litter from entering into the storm drainage system and Waters of the State | The Cityworks® Work Order System is used to track system maintenance. Each system feature such as pipes, manholes, and detention basins, have been assigned a unique record in the data- base. Maintenance activity on each structural feature of the Salt Lake City system is tracked. The number of complaints is also tracked. | SLCDPU Storm water Quality and Maintenance Programs |
| X | X | X | X | X | BMP 2: Inspect all major storm drains and detention basins within the permit cycle. | <ul style="list-style-type: none"> To keep all of the major storm drains and detention basins in repair and clean of any debris or sediment that may keep them from efficient operation. | The Cityworks® Work Order System will be used for keeping track of all of the major storm drains and detention basins inspected, and document any repairs or cleanup. | SLCDPU Storm water Quality and Maintenance Programs |
| X | X | X | X | X | BMP 5: Remove leaves from gutters during the fall leaf season. | <ul style="list-style-type: none"> To clean leaves out of the gutters and drainage intakes before they get into the storm drain system. This minimizes organic material that may otherwise convey into the Waters of the State. | The tons of leaves that are removed and taken to various locations for composting will be used for measuring the success of this BMP. | SLCDPU Storm water Quality and Maintenance Programs and Salt Lake Public Services |
| X | X | X | X | X | BMP 7: Support citizens clean up days of selected waterways. | <ul style="list-style-type: none"> To improve the aesthetics of selected waterways by removing debris and to promote citizen awareness and responsibility regarding the waterway. | The change in the amount of debris removed from the waterway and hauled to the landfill is one measurement of the success of this BMP. . | SLCDPU Storm water Quality and Maintenance Programs and Salt Lake Public Services |
| X | X | X | X | X | BMP 8: Track drainage system maintenance using Cityworks® system. | <ul style="list-style-type: none"> To document and track system maintenance, with the computerized work order system. (Cityworks®). This documentation will be used to keep track of maintenance activity on each structural feature of the Salt Lake City system and provide information for future maintenance activities | The measurement for this BMP is the work performed on the storm drainage system. The number of work orders assigned and the repairs and/or replacements to portions of the drainage system to insure the systems are clean and function properly. | SLCDPU Storm Water Maintenance Program |
| X | X | X | X | X | BMP 9: Conduct annual training for drainage system maintenance personnel. | <ul style="list-style-type: none"> To insure that storm drainage maintenance personnel are aware of their responsibility in maintaining storm water quality as work is performed. | The measurement for this BMP is the training provided for maintenance personnel. The quality of the training and topics discussed should focus on BMP that they can implement to maintain storm water quality while | SLCDPU Storm water Quality and Maintenance Programs |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|---|--|--|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | | | performing their job. Another aspect of the training should focus on illicit discharge identification. | |
| X | X | X | X | X | BMP 10: Continue proper disposal methods for sediments from storm drain cleaning. | <ul style="list-style-type: none"> To ensure proper disposal of sediments from storm drain cleaning in an efficient and environmentally sound manner. | The measurement for this BMP is the number of loads that are properly de-watered and hauled to the landfill for disposal. This disposal method is used to dispose of the sediment in an environmentally sound manner. | SLCDPU Storm water Maintenance Program |
| X | X | X | X | X | BMP 15: Support the existing Salt Lake City Street Sweeping program. | <ul style="list-style-type: none"> The goal of this BMP is to reduce the impact on receiving waters from pollutants and debris accumulating on the streets from residential, industrial, and commercial use. | The measurement of this BMP is the miles of street swept and debris removed from the streets. | SLCDPU Storm water Quality Program |
| X | X | X | X | X | BMP 16: Review salt pile storm water management. | <ul style="list-style-type: none"> To have an environmentally sound storm water management plan implemented around street deicing salt piles. | The measurement for this BMP is the prevention of the salt, and brine solution from leaving the containment area and migrating to storm drainage systems or leaching into the groundwater. | SLCDPU Storm water Quality Program and SLC Public Services |
| X | X | X | X | X | BMP 17: Continue procedures for monitoring storm water management on public construction projects. | <ul style="list-style-type: none"> The goal of this BMP is to meet Storm Water conditions by identifying and controlling problems with erosion, sedimentation, or other pollutants that may enter the drainage system on CED Projects. | The measurement for this BMP is the UPDES construction permits, SWPPPs, and erosion and sediment controls implemented on Public Service Projects. | SLCDPU Storm water Quality Program |
| X | X | X | X | X | BMP 18: Review proposed street projects for applicability of structural BMPs. | <ul style="list-style-type: none"> The goal of this BMP is to review all street maintenance projects for applicability of installation of structural BMPs such as grass swales and detention basins to reduce pollutants. | The measurement of this BMP is that 100% of all street maintenance projects are reviewed and inspected with structural BMPs installed. As these structural BMPs are installed, the key measurement is the reduction of pollutants transported into the rivers and streams. | SLCDPU Storm Water Quality Program and Engineering Division and and Public Services Division |
| X | X | X | X | X | BMP 19: Review all proposed storm water projects for applicability of structural BMPs. | <ul style="list-style-type: none"> The goal of this BMP is to develop the best methodology for evaluating and improving water quality on all storm water capital projects. | The measurement of this BMP is the number of storm water projects reviewed and the impact the capital improvements have on improving water quality discharging to the receiving water bodies. | SLCDPU Storm Water Quality Program and Engineering Division |
| * | * | * | * | * | BMP 20: Review detention basins for feasibility of retrofitting for water quality enhancements | <ul style="list-style-type: none"> To review and develop a plan regarding the feasibility of retrofitting existing detention basins for water quality enhancements. | The measurement for this BMP is the review process of existing structural controls and implementation of retrofits to the structures to enhance storm water quality. | SLCDPU Storm Water Quality Program and Engineering Division |
| X | X | X | X | X | BMP 34: Continue to implement storm drain spill response plan. | <ul style="list-style-type: none"> To have a storm drain spill response plan that is consistently used when a spill occurs. | The measurement for this BMP is the number of storm drain spill responses. | SLCDPU Storm Water Quality and Maintenance Program |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|--|---|------------------------------------|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| X | X | X | X | X | BMP 36: Continue to provide HAZWOPER training to applicable personnel | <ul style="list-style-type: none"> To have personnel trained to respond to spills correctly and safely. | The measurement for this BMP is the number of personnel trained to respond to spills. | SLCDPU Storm Water Quality Program |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

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9.0 INDUSTRIAL AND HIGH RISK RUNOFF

The Industrial and High Risk Runoff Program addresses the need to continue to develop and implement an inspection and oversight program to monitor and control the discharge of pollutants to the City's MS4 from industrial and priority commercial facilities.

9.1 DESCRIPTION

The Industrial and High Risk Runoff Program will continue to be developed and implemented with the intent to reduce pollutants to the MEP from industrial and high risk facilities. This program compliments the IDDE program by reducing pollutants to the MS4 from industrial and high risk users.

The goals described in this section of the SWMP include: continuing to develop and maintain inventory, prioritization of facilities, conducting inspections, enforcement of storm water quality requirements, and employee training.

9.1.1 INDUSTRIAL AND PRIORITY COMMERCIAL FACILITY INVENTORY AND PRIORITIZATION

Objective: Develop, maintain and update the inventory of Industrial and priority commercial facilities that pose the greatest potential to discharge pollutants into the MS4.

Permit Requirements: 4.3.1 and 4.3.4 - Industrial and High Risk Runoff

Description: Salt Lake City will update, maintain and develop an inventory of industrial and priority commercial facilities that discharge or may potentially discharge to the MS4.

Inventory will include sites/sources that have the greatest potential to contribute a significant pollutant load to the MS4, sites with a past history of water quality problems, and any site/sources tributary to an impaired water body segment that generates pollutants for which the water body segment is impaired. The inventory will be updated as needed, as identified, and/or in accordance with site inspections.

Business licenses with NAICS and Commercial/Industrial User Questionnaires (CIUQ) will continue to be reviewed for indicators of commercial and industrial facilities that may be likely to discharge pollutants to the MS4.

Industrial Facility Inventory & Prioritization (Permit Requirement 4.3.1. & 4.3.2.): Salt Lake City will identify permitted and non-permitted industrial sites using the City's current database in conjunction with the State of Utah's MSGP database. The MSGP identifies target industrial groups. These groups are required to obtain a State/City issued Storm water Permits. The industrial inventory will include sites/sources listed in 4.3.1.2 of the 2015 permit. Industrial facilities will be prioritized based on expired permits, non-permitted sites, violation history,

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proximity to a water body, and on the basis of the potential for water quality impacts including pollutants of concern.

Priority Commercial Facility Inventory (Permit Requirement 4.3.1.): The commercial facilities will be identified based on the type of activities associated with the business which show the greatest risk to discharge pollutants into the MS4. IDDE history in accordance with SLCoHD records also may be used to determine priority commercial industries. Commercial sites/sources in section 4.3.1.2 of the permit shall be considered for inclusion in the inventory based on priority. The City will develop a list of priority sites and a five year plan to record and inspect these sites/sources.

The Industrial and priority commercial inventory shall include the following information for each site:

- Name
- Address
- Physical location of storm drain receiving discharge
- Name of receiving water
- Pollutants potentially generated by the site/source
- Identification of whether the site/source is (1) tributary to an impaired water body segment (i.e., whether it is listed under Section 303(d) of the Clean Water Act) and (2) whether it generates pollutants for which the water body segment is impaired.
- A narrative description including the NAICS
- System (NAICS) codes, which best reflects the principal products or services provided by each facility.
- In addition, data from NPDES pretreatment programs within the MS4 boundary on significant industrial users (SIUs) could also be used to identify and prioritize industrial sites.

The following BMPs will continue to be implemented in accordance with the Industrial and High Risk Runoff Program:

- BMP 23:** Maintain a database of industrial users based on NAICS or SIC codes. Priorities target industries and business that have a high potential for illicit connections.
- BMP 38:** Continue to implement an education program for industrial and commercial users on oil and toxic materials disposal
- BMP 41:** Maintain an industrial user's database.
- BMP 43:** Identify and Prioritize industrial and priority commercial groups.
- BMP 44:** Staff a position for coordinating storm water pollution prevention.

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BMP 45: Distribute water quality education materials to Industrial and priority commercial facilities.

9.1.2 INDUSTRIAL AND PRIORITY COMMERCIAL FACILITY INSPECTIONS

Objective: To inspect industrial and priority commercial facilities to ensure appropriate storm water control measures are being implemented.

Permit Requirements: 4.3.3, 4.3.4, 4.3.5, & 4.3.6 - Industrial and High Risk Runoff

Description: Salt Lake City will conduct inspections of industrial and priority commercial facilities based on the prioritization process. Inspections and their documentation shall be done properly, thoroughly and to meet permit requirements.

Industrial Facility Inspections (Permit Requirement 4.3.3): Salt Lake City will continue to inspect industrial facilities and track permitted facilities to ensure that they are inspected at least once during the permit term. High priority facilities may be inspected more frequently as needed. No exposure permits shall be tracked and monitored for significant changes.

BMP 42: Salt Lake City will obtain copies of all the SWPPP prepared for industrial facilities within the Salt Lake City area. Additional controls may be placed on the facility if deemed appropriate.

Priority Commercial Facility Inspections (Permit Requirement 4.3.4): Commercial facilities will be identified and inspected in conjunction with the IDDE process and may involve coordination with the SLCoHD. The inventory and prioritization of these sites will determine when an inspection is initiated. Applicable commercial sites also may be required to obtain an UPDES and SSID permit- these permitted sites would then have the same inspection requirements as the industrial permitted sites.

Inspections are scheduled, tracked and updated in a database that is maintained by the Storm Water Quality Program. Priority inspections may be prompted by expired and new State MSGP permits. The City also uses business licensing codes and a questionnaire for industrial and commercial customers that may also initiate a storm water inspection. No-exposure permits are tracked separately and updated as needed.

As per Section 4.3.5 of the 2015 Permit, industrial and priority commercial inspections shall include at a minimum:

- Conduct a visual observation for evidence of unauthorized discharges, illicit connections, and potential discharge of pollutants to storm water;

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- Verify whether the facility is required to be authorized under the UPDES MSGP for Storm water Discharges Associated with Industrial Activities and whether the facility has in fact obtained such permit coverage;
- Require the facilities to select, install, implement, and maintain storm water control measures as necessary to minimize storm water pollution. Industrial and commercial facilities that discharge into impaired water bodies may need to implement additional controls as necessary to prevent the discharge of pollutants of concern.
- Evaluate the facility's compliance to select, design, install, and implement storm water control measures;
- Evaluate the facility's compliance with any other relevant local storm water requirements;

Inspections will be documented and tracked to identify problem areas to ensure they're conducted at the proper frequency. As per the 2015 permit, documentation will include the following information when applicable:

- The inspection date and time;
- The name(s) and signature(s) of the inspectors;
- Weather information and a description of any discharges occurring at the time of the inspection;
- Any previously unidentified discharges of pollutants from the site;
- Any control measures needing maintenance or repairs;
- Any failed control measures that need replacement;
- Any incidents of noncompliance observed; and
- Any additional control measures needed to comply with the permit

Follow up Inspections and Enforcement (Permit Requirement 4.3.6): Salt Lake City will conduct follow up inspections and enforcement activities as necessary to ensure storm water quality control measures are implemented and permit requirements are met. These records will be documented and maintained by the City. Enforcement will be implemented in accordance with Salt Lake City Ordinances and the Utah Water Quality Act Civil Penalty Determination Flowchart.

9.1.3 EMPLOYEE TRAINING

Objective: Provide training to applicable employees to ensure inspections are conducted and documented properly and that permit requirements are met.

Permit Requirements: 4.3.7 – Industrial and High Risk Runoff

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Description: Salt Lake City will provide training opportunities to personnel whose job duties include the Industrial and High Risk Runoff Program. Training shall include requirements of the MSGP for discharges associated with industrial activities or other local requirements. Employees shall go through the RSI training, receive on the job training, and will attend other training opportunities as available. All applicable training records shall be documented.

9.2 IMPLEMENTATION STATUS

The implementation status for these BMPs are to be implemented and assessed during the permit term and are presented in **Table 9.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 9.1 Implementation Status for Industrial/High Risk Runoff Program

| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|--|---|------------------------------------|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| x | x | x | x | x | BMP 22: Continue SWMP program similar to the pretreatment program. | <ul style="list-style-type: none"> To develop a program similar to the wastewater pretreatment program that is proactive in working with the businesses in Salt Lake City. The goal is to provide the businesses with information and assistance to help them stay in compliance with storm water objectives. | The measurement for this BMP is the percent of industries with permits, and the percent of SWPPPs that are implemented. The ability to get businesses to comply and meet storm water standards is very important for the long-term success of the program. The number of inspections, enforcement of illegal discharges, and disconnection of illegal connections is another measurement beneficial to the storm water and pretreatment programs. | SLCDPU Storm Water Quality Program |
| x | x | x | x | x | BMP 23: Maintain industrial user NAICS and SIC code database. | <ul style="list-style-type: none"> To have an updated listing of local industries having a Standard Industrial Classification Code, (SIC) requiring them to acquire State Industrial UPDES and Salt Lake City storm water permits and a SWPPP implemented. | The measurement of this BMP is the percent of total required industries on the database that obtain permits and meet storm water regulations as a result of contacts made from the use of this data base. | SLCDPU Storm Water Quality Program |
| * | * | * | * | * | BMP 38: Continue to develop an education program for industrial & commercial users on oil and toxic materials disposal | <ul style="list-style-type: none"> To have an education program that is targeted to industry and business audiences encouraging proper disposal of oil and toxic materials. | The measurement for this BMP is the number of industries and businesses that are educated and properly disposing oil and toxic materials. | SLCDPU Storm Water Quality Program |
| x | x | x | x | x | BMP 41: Maintain an industrial user's database. | <ul style="list-style-type: none"> To have an industrial users database available with Section 313 of Title III of the 1986 (SARA) chemicals or heavy pollutants for tracking purposes. | The measurement for this database is an updated database record that is available when a pollutant is detected and traced back to the source as a result of the database. | SLCDPU Storm Water Quality Program |
| * | * | * | * | * | BMP 42: Salt Lake | <ul style="list-style-type: none"> To obtain copies and review | The measurement for this BMP is the | SLCDPU Storm |

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| Schedule | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|--|--|------------------------------------|
| Permit Year | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | |
| | | | | | City will obtain copies of all the SWPPP prepared for industrial facilities within the Salt Lake City area. Additional controls may be placed on the facility if deemed appropriate. | SWPPPs prepared by industries in the Salt Lake City area and make sure of their implementation. | number of industries that have prepared a SWPPP. | Water Quality Program |
| | x | x | x | x | BMP 43: Identify and Prioritize industrial and priority commercial groups. | <ul style="list-style-type: none"> To identify and prioritize industrial and priority commercial facilities based on sites/sources that pose the greatest threat to water quality. | The Measurement of this BMP will be the amount of facilities identified and listed in the industrial and priority commercial database. | SLCDPU Storm Water Quality Program |
| x | x | x | x | x | BMP 45: Distribute water quality education materials to Industrial and priority commercial facilities. | <ul style="list-style-type: none"> To provide information to target industrial groups with BMPs regarding water quality, including notifying the industrial facilities of the compliance requirements of the State General Industrial Storm Water Permit. | The measurement of this BMP is the number of target industrial groups that are provided with water quality materials and State/City Industrial Storm Water Permit. | SLCDPU Storm Water Quality Program |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

10.0 MONITORING, RECORDKEEPING, AND REPORTING

Monitoring is an integral part of storm water management, as the findings and data can be used to assess the City's MS4 and the effectiveness of the program, as well as potentially serve to identify trends and priority areas. Recordkeeping and documentation of the SWMP and storm water management will continue to be implemented and the Annual report will serve to assess and report yearly findings and activities of the storm water program. Monitoring, recordkeeping, and reporting will be done in accordance with the 2015 permit.

10.1 DESCRIPTION

The City will continue to implement wet weather monitoring and dry weather screening. Wet weather monitoring serves to identify pollutants and their concentrations during qualified storm events. The dry weather screening will compliment the IDDE program and serve to identify outfalls, as well as illicit connections and discharges during dry weather periods. Recordkeeping will be integrated with all aspects of the SWMP as required by the 2015 permit, as well as the Annual report. This section will detail those programs and BMPs to be implemented by Salt Lake City. Progress towards the measurable goals will be documented in the Annual Report.

10.1.1 MONITORING

Objective: To gather data that's representative of Salt Lake City's storm water quality and to identify outfalls and any illicit connections and discharges.

Permit Requirement: Part 5.2 – Monitoring, Recordkeeping and Reporting

Description: Continue wet weather monitoring, dry weather screening, and provide employee training for monitoring programs.

Wet Weather Monitoring (Permit Requirement 5.2.1): Wet Weather sampling is done at three locations. Each location represents a specific land use category – Residential, Light Industrial, and Mixed Use (See **Figures 3-5**):

- JOR 8.32 Located at 900 South Gale Street represents mixed land use (commercial, residential and light industrial).
- MIL 2.60 Located at the Forest Dale golf course represents residential land use.
- LED 1.87 Located at 5500 West on the Lee Drain represents industrial land use.

Sampling at the above locations is conducted twice each year – once in the spring and once in the fall. Weather forecasts are monitored on a daily basis to determine when a representative storm event is expected. Approximately 24 hours prior to the prediction of a representative storm, preparations for sampling begin. At this point in the event, the sampling units are programmed to take samples at specified volume intervals, based on predicted rain volume.

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Grab samples are taken at each station on the rising limb of the hydrograph and analyzed for pH, Oil and Grease, and Total Cyanide. An automatic sampler continues to sample at each location throughout the storm event. When the runoff ceases, or when flow returns to approximate normal base flow, the sample bottles are collected. This sample is then composited based on flow rate and total volume and taken to a certified laboratory for analysis of the samples collected. The composite sample is analyzed for pH, BOD, Hardness, Nitrogen, Phosphorus, TDS, TSS, and metals. During the storm event, field measurements of pH and temperature are taken at each sampling site. In addition, general observations such as rain gage reading, flow level and rate reading, and status of equipment are recorded by the automatic sampler.

Dry Weather Screening (Permit Requirement 5.2.3): Dry weather screening will be complimented by the IDDE program (Section 5.1 of the SWMP) and will serve to identify and map known outfalls while looking to recognize any illicit discharges during dry weather periods. Salt Lake City will screen all known outfalls at least once during the permit term.

BMP 33: Investigate sources of observed discharges during dry weather periods.

Any modifications to the monitoring program will be submitted to DWQ for approval.

Employee Training: Salt Lake City will ensure personnel responsible for conducting wet weather monitoring and dry weather screening are adequately trained. Training will include proper sampling techniques and completion of Chain-of-Custody forms.

10.1.2 RECORDKEEPING

Objective: To document and record all applicable activities in the SWMP and Storm Water Quality Program.

Permit Requirement: Part 5.3 – Monitoring, Recordkeeping and Reporting

Description: Recordkeeping is a significant component of the SWMP and the Storm Water Quality Program. The City will record and retain all required documents set forth in the 2015 permit, including: plans, records of all programs, and all records of all monitoring information. These records shall be retained for at least five years.

10.1.3 REPORTING

Objective: Provide reporting to summarize and evaluate information to improve the SWMP and Storm Water Quality Program as necessary.

Permit Requirement: Part 5.4 – Monitoring, Recordkeeping and Reporting
Part 4.5 – Reviewing and Updating Storm Water Management Programs

Description: Salt Lake City will continue to provide annual reporting that describes yearly activities of the Storm Water Quality Program in regards to the SWMP. The wet weather monitoring program will

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provide data to develop a five year technical water quality report to identify and assess trends in storm water quality. The SWMP shall be reviewed and updated as necessary and all modifications made with approval of DWQ.

Annual Report (Permit Requirement 5.4.1.): Salt Lake City shall submit an annual report to DWQ by October 1 every year within the permit term detailing the activities from July 1- June 30 related to the SWMP and the 2015 permit. This report will be signed in accordance with Part 6.8 of the 2015 permit.

Technical Water Quality Report (Permit Requirement 5.4.2.1.): Salt Lake City will submit a technical storm water quality report every five years, providing a five-year summary of wet weather monitoring data. The report will attempt to assess trends in storm water quality.

SWMP Update, Review and Modifications (Permit Requirement 5.4.2.1.): Salt Lake City shall conduct a review of the SWMP annually during the development of the Annual report. The SWMP is meant to be a dynamic document and may change during the permit cycle; any modifications to the SWMP will be submitted to DWQ in accordance with Part 4.5 of the 2015 permit.

10.2 IMPLEMENTATION STATUS

Measurable goals for these BMPs are to be implemented and assessed during the permit term are presented in **Table 10.1**. The purpose of measurable goals is to gauge permit compliance and program effectiveness following the schedule identified.

Table 10.1 Implementation Status for Storm Water Monitoring, Recordkeeping, & Reporting Program

| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|--|---|---|------------------------------------|----------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| x | x | x | x | x | BMP 8: Use the Cityworks® work order system to track and schedule storm drain maintenance activities. | <ul style="list-style-type: none"> To document and track system maintenance, with the computerized work order system. (Cityworks®). This documentation will be used to keep track of maintenance activity on each structural feature of the Salt Lake City system and provide information for future maintenance activities. | The measurement for this BMP is the work performed on the storm drainage system. The number of work orders assigned and the repairs and/or replacements to portions of the drainage system to insure the systems are clean and function properly. | SLCDPU Storm Water Maintenance | |
| * | * | * | * | * | BMP 23: Maintain industrial user NAICS and SIC code database | <ul style="list-style-type: none"> To have an updated listing of local industries having a Standard Industrial Classification Code, (SIC) requiring them to acquire State Industrial UPDES and Salt Lake City storm water permits and a SWPPP implemented. | The measurement of this BMP is the percent of total required industries on the database that obtain permits and meet storm water regulations as a result of contacts made from the use of this data base. | SLCDPU Storm Water Quality Program | |

SALT LAKE CITY STORM WATER MANAGEMENT PLAN
MS4 UPDES PERMIT NO. UTS000002

| Schedule | | | | | | BMP | Goal | Measurement | Responsibility |
|-------------|---|---|---|---|---|---|--|------------------------------------|----------------|
| Permit Year | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | | | | | |
| x | x | x | x | x | BMP 25: Maintain records and database of all illicit connection investigations. | <ul style="list-style-type: none"> The goal of this BMP is to have records and a database of all illicit connections, their enforcement, and resolution for future reference. | The measurement of this BMP is the number of illicit connection investigations and their resolutions. In 2014, forty-Four reports regarding illicit discharges or connections were investigated. The significant increase in discharges reported can be attributed to increased enforcement, education, public involvement and responsibility. | SLCDPU Storm Water Quality Program | |
| | | x | x | x | BMP 33: Investigate Dry Weather flows. | <ul style="list-style-type: none"> To Dry Weather Screen the MS4 flows to systematically investigate and remove illicit flows. | The measurement used for this BMP is the portion of the MS4 monitored, and the illicit discharges removed. | SLCDPU Storm Water Quality Program | |
| x | x | x | x | x | BMP 41: Maintain an industrial user database. | <ul style="list-style-type: none"> To have an industrial users database available with Section 313 of Title III of the 1986 (SARA) chemicals or heavy polluters for tracking purposes. | The measurement for this database is an updated database record that is available when a pollutant is detected and traced back to the source as a result of the database | SLCDPU Storm Water Quality Program | |
| x | x | x | x | x | BMP 42: Obtain and review SWPPP prepared by industrial users within the Salt Lake City area. | <ul style="list-style-type: none"> To obtain copies and review SWPPPs prepared by industries in the Salt Lake City area and make sure of their implementation. | The measurement for this BMP is the number of industries that have prepared a SWPPP. | SLCDPU Storm Water Quality Program | |

An asterisk (*) indicates BMPs that are done as needed or as applicable within the permit cycle

(x) Indicates year to be implemented or describes an on-going BMP

FIGURE 1- Vicinity Map

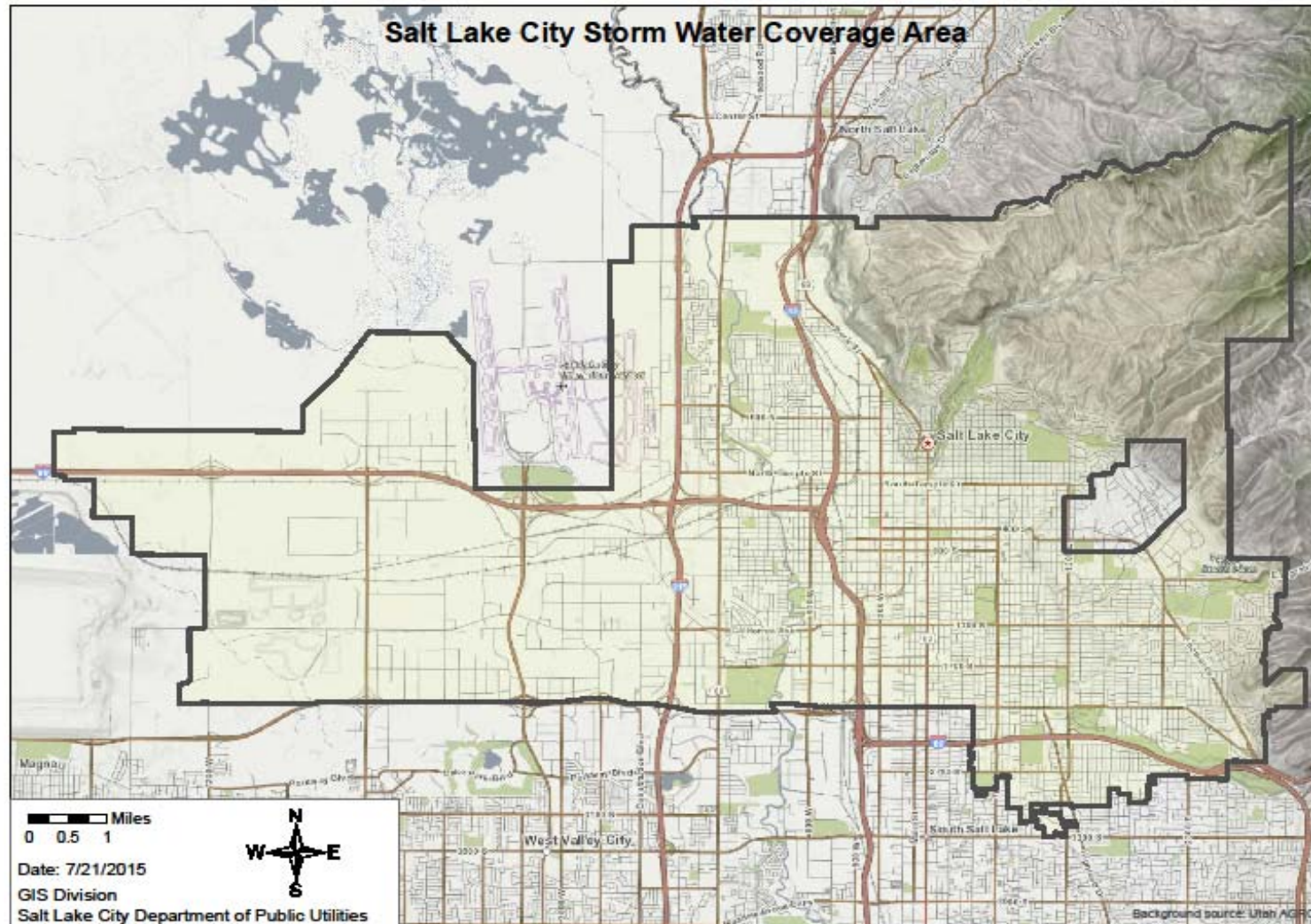


FIGURE 2 - SALT LAKE CITY STORM WATER PROGRAM ADMINISTRATION CHART

Salt Lake City Stormwater Program Organization Chart

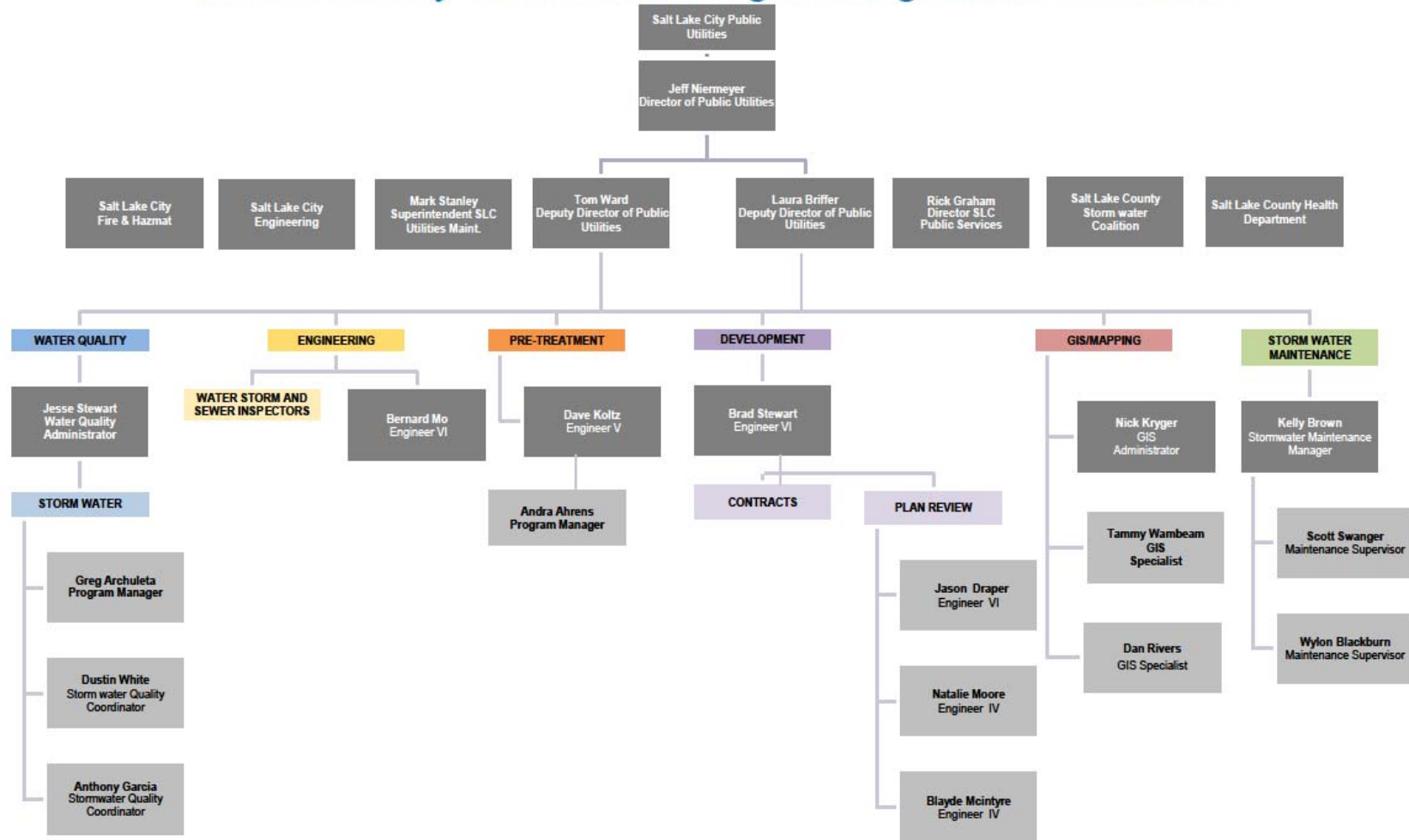


FIGURE 3 - WET WEATHER MONITORING: GALE STREET DRAINAGE BASIN MAP (JOR 8.32)

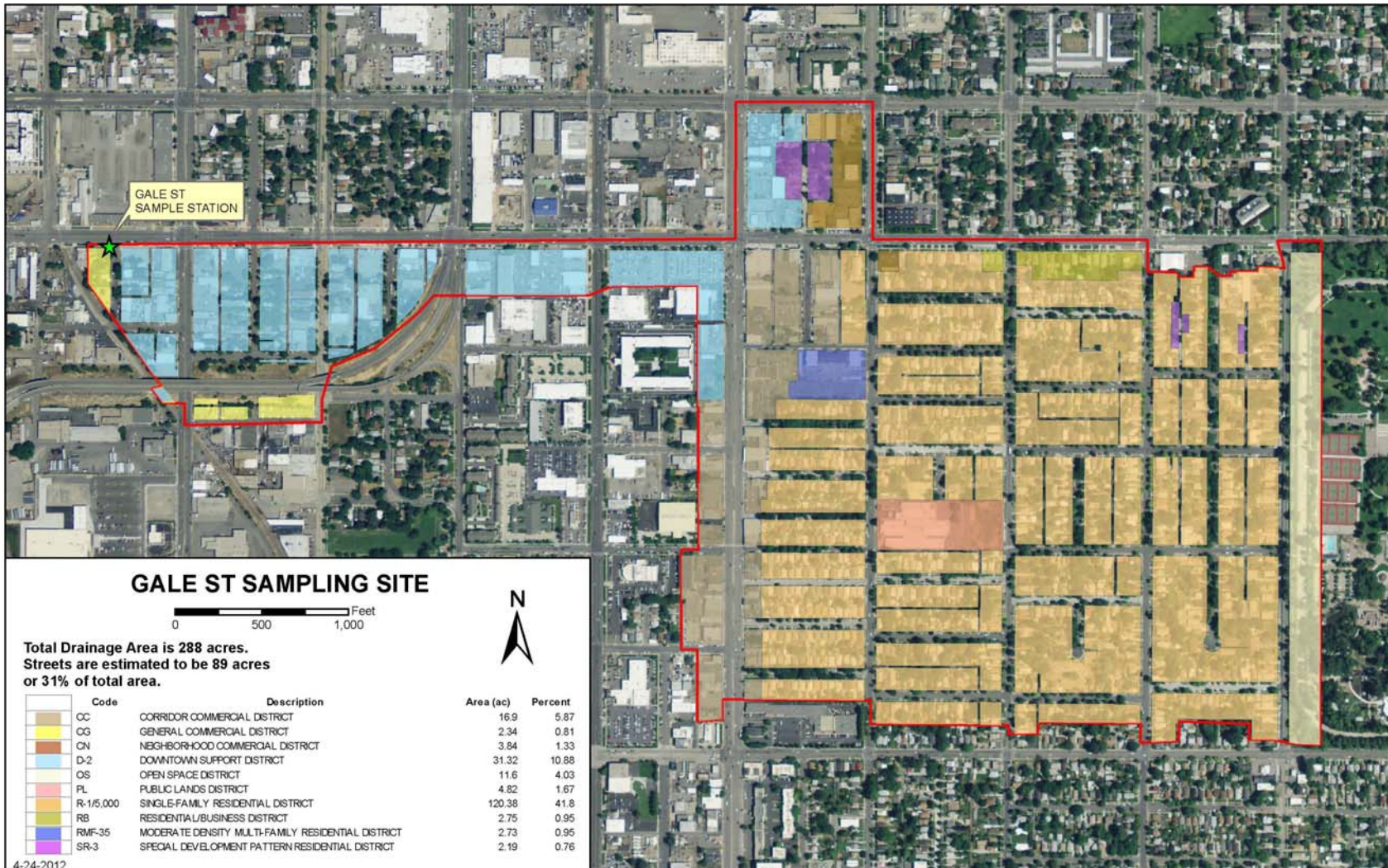
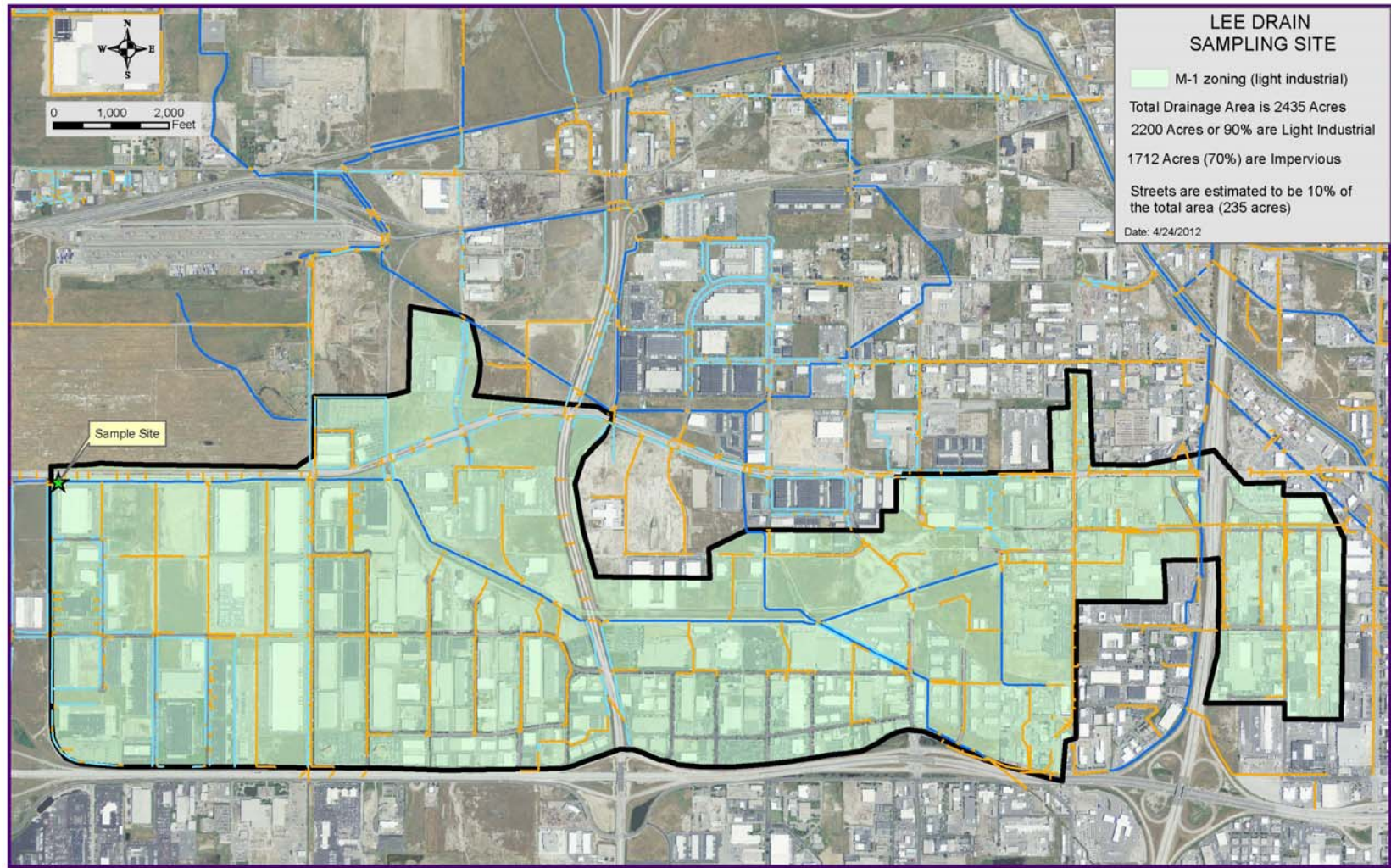
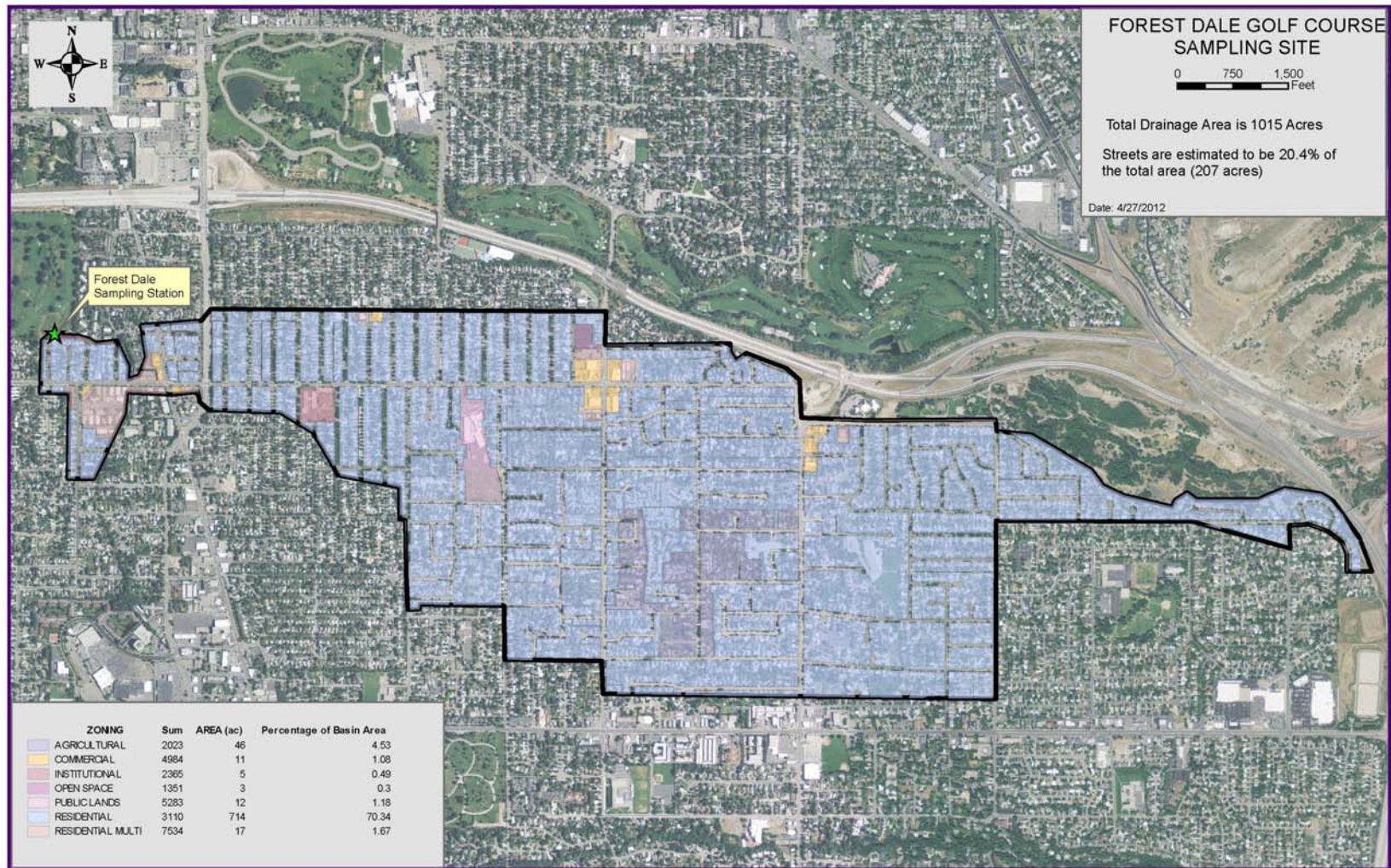


FIGURE 4 - WET WEATHER MONITORING: LEE DRAIN DRAINAGE BASIN MAP (LED 1.87)



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FIGURE 5 - WET WEATHER MONITORING: FOREST DALE BASIN MAP (MIL 2.60)



APPENDIX A – MOU Between Salt Lake City and Salt Lake County Health Department

Awaiting final signatures.

APPENDIX B – Salt Lake City Stormwater and Riparian Ordinance

DRAFT

SALT LAKE CITY ORDINANCE
No. 53 of 2007
(Amending Title 2 and Title 17 of the Salt Lake City Code,
relating to the Storm Water Sewer System)

* * *

AN ORDINANCE AMENDING TITLE 2 AND TITLE 17 OF THE SALT LAKE CITY CODE, RELATING TO THE STORM WATER SEWER SYSTEM; REQUIRING A CITY DISCHARGE PERMIT FOR CERTAIN ACTIVITIES RESULTING IN DISCHARGE TO THE STORM WATER SEWER SYSTEM; AUTHORIZING ENFORCEMENT ACTION, FINES AND PENALTIES FOR PROHIBITED DISCHARGES AND OTHER PROHIBITED CONDUCT; AND RELATED MATTERS.

* * *

Be it ordained by the City Council of Salt Lake City, Utah:

SECTION 1. Section 2.08.100 of the Salt Lake City Code is hereby amended to read as follows:

2.08.100 Department of Public Utilities:

A. Functions: The department of public utilities shall have charge of and be responsible for:

1. The acquisition, transportation, storage, treatment and distribution of all irrigation, raw and potable water for the city and its designated service areas, including, but not limited to:

a. All farms and watershed lands, so far as the same affect the water supply of the city;

b. All water sources from which the domestic supply is or may be taken;

c. All reservoirs, conduits, tanks, and water mains, city fire hydrants located within the city, and appurtenant equipment and properties;

d. All irrigation gates, dams, flumes, ditches, canals, reservoirs and related facilities necessary for the proper control and distribution of irrigation water for which the city is acting as distributing agent, or in connection with any water exchange agreements to which the city is a party; and

2. Keeping records of the location of all principal gates, dams, flumes, ditches, canals and reservoirs and water rights owned by the city, which

21A.34.130: RCO RIPARIAN CORRIDOR OVERLAY DISTRICT²:

A. General Provisions:

1. **Purpose Statement:** The purpose of the RCO riparian corridor overlay district is to minimize erosion and stabilize stream banks, improve water quality, preserve fish and wildlife habitat, moderate stream temperatures, reduce potential for flood damage, as well as preserve the natural aesthetic value of streams and wetland areas of the city. This overlay district is intended to provide protection for the following aboveground streams, stream corridors and associated wetlands east of the Interstate 215 Highway: City Creek, Red Butte Creek, Emigration Creek, Parleys Creek, and Jordan River. Where these streams flow through areas already developed on the effective date of this section (January 15, 2008), the RCO is intended to achieve a reasonable balance between the dual nature of these areas: natural streams and developed land uses.
2. **District Location:** The RCO district applies to that portion of any lot or parcel of land located between the annual high water level (AHWL) of City Creek, Red Butte Creek, Emigration Creek, Parleys Creek and the Jordan River, where not located belowground, and a line which is one hundred feet (100') along a horizontal plane from the AHWL. The RCO district does not apply to any lot or parcel where a stream, with respect to such lot or parcel, is located entirely belowground in a pipe or covered channel.
3. **Applicability:** The RCO district regulations set forth in this section supplement regulations in the underlying base zoning district. RCO regulations shall govern any use or development conducted within the RCO district unless specifically exempted under the provisions of this section or another provision of this title.
 - a. An RCO permit is supplementary to any land use permit authorized under this title.
 - b. Canals and irrigation ditches are not subject to this section.
 - c. The surplus canal and watercourses west of Interstate 215 are regulated under section [21A.34.050](#), "LC Lowland Conservancy Overlay District", of this chapter and are not subject to this section.
4. **Relationship To Other Laws:** The requirements of the RCO district shall apply in addition to any other applicable federal, state, county, or city law or regulation.
 - a. Any use or development within the RCO district shall conform to applicable provisions of title 20, "Subdivisions", of this code and this title. Compliance with the requirements of this section shall not relieve a landowner from compliance with other applicable provisions of this title except as expressly otherwise set forth in this section.
 - b. If a landowner obtains a permit for a use or development located within the RCO district that is entirely within the jurisdiction of a federal or state government agency

or Salt Lake County, then the landowner shall also apply for a riparian protection permit. If the relevant federal, state, or county agency approves the use or development as in compliance with the agency's requirements, then the city shall issue the riparian protection permit subject to compliance with the federal, state, or county approval and shall not independently review the use or development for compliance with this section.

- c. If any portion of a proposed use or development is outside the jurisdiction of a federal, state, or county agency, then the applicant shall comply with the provisions of this section and shall obtain a riparian protection permit if required under the provisions of this section.
- d. Salt Lake County shall not be required to obtain a riparian protection permit for any county flood control activity authorized by the Utah code within or along a stream in the RCO district. However, Salt Lake County shall obtain a riparian protection permit for any stream restoration and nonflood control development or other use conducted by the county which is located within the RCO district.
- e. Any person who leases federal or state land, or any appurtenant structure or building located within the RCO district shall obtain a riparian protection permit if required under the provisions of this section.
- f. A city department or agency that conducts a use or development within the RCO district shall follow the requirements of this section and obtain a riparian protection permit if required for such use or development.
- g. The department of public utilities shall develop general permits as needed to address routine channel maintenance, possible emergency situations, and similar activities. These general permits shall provide how a particular use or development shall be conducted to avoid adverse stream corridor impacts and shall include required mitigation and restoration measures consistent with the provisions of this section. The process for reviewing and approving a general permit application shall be the same for a public or private person or entity.

B. Decision Making Authority:

1. Public Utilities Director: The public utilities director shall be responsible for implementing and administering the provisions of this section. The public utilities director:
 - a. May authorize a minor exemption and reasonable use exception to the provisions of this section as set forth, respectively, in subsections C5 and C6 of this section;
 - b. May render an administrative interpretation of any provision in this section pursuant to the procedures set forth in chapter 21A.12 of this title;
 - c. May not make any decision involving land use, zoning, subdivision, legal conformity in a zoning district, historic preservation, restoration, rehabilitation, or demolition of any structure except as expressly set forth in this section;

- d. Shall expedite the permit review process if an applicant reasonably demonstrates imminent danger to individuals or property is associated with the subject land;
- e. May adopt reasonable regulations, including approval of general permits, to implement the provisions of this section; and
- f. May designate one or more staff persons within the department to carry out these responsibilities. Wherever this section refers to the director, such reference shall also include the director's designee.

2. **Public Utilities Advisory Committee:** Pursuant to the authority granted in subsection [2.40.110](#) of this code, the public utility advisory committee shall hear and decide any appeal arising from a final decision granting or denying a riparian protection permit pursuant to procedures set forth in chapter 21A.16 of this title.

3. **Appeal Of Decision:** Any person adversely affected by any decision of the public utilities advisory committee may, within thirty (30) days after the decision is made, present to the district court a petition specifying the grounds on which the person was adversely affected.

C. **Review Process And Procedures:** An application for a riparian protection permit shall be considered and processed as set forth in this subsection.

1. **Riparian Protection Permit Application:** A complete application shall be submitted to the department of public utilities and shall contain at least the following information submitted by the applicant, unless certain information is determined by the public utilities director to be inapplicable or unnecessary to evaluate the application under the provisions of this section. The public utilities director may determine, consistent with the requirements of this section, other application matters such as the scale, quality, and details shown on maps and plans, and the number of application copies required for submittal.

- a. The applicant's name, address, telephone number and interest in the land;
- b. The landowner's name, address and telephone number, if different than the applicant, and the owner's signed consent to the filing of the application;
- c. The street address and legal description of the subject land;
- d. The zoning classification, boundaries of base and overlay zoning districts, and present use of the subject land;
- e. A complete description of the use or development for which a riparian protection permit is requested;
- f. Plan view and cross sections of the site which show:
 - (1) The riparian corridor boundary with respect to the subject land;

- (2) The annual high water line and each setback line from the AHWL (area A, 25 feet; area B, 50 feet; and area C, 100 feet), elevation, and slope;
 - (3) The location and setback of existing and proposed buildings and structures;
 - (4) Existing and proposed grades;
 - (5) Any nonnative or invasive vegetation identified by location, type, and size, including any area where invasive vegetation is proposed for removal;
 - (6) 100-year floodplain, past flood hazard areas, geological faults, high liquefaction areas, and slopes thirty percent (30%) or greater;
 - (7) Habitat of any known threatened or endangered species of aquatic and terrestrial flora or fauna, if required by the public utilities director;
 - (8) If wetlands exist on the subject land, a wetlands delineation approved by the U.S. army corps of engineers; and
 - (9) Such other and further information or documentation as the public utilities director may reasonably deem necessary for proper consideration of a particular application, including, but not limited to, geotechnical and hydrological reports required under subsection E8 of this section.
2. Riparian Corridor Delineation: The riparian corridor shall be delineated at the annual high water level.
- a. When the annual high water level cannot be found, the top of the channel bank may be substituted if approved by the public utilities director.
 - b. A boundary location or delineation required under this section shall be prepared by a licensed professional hydraulic engineer, hydrologist, wetlands scientist, fluvial geomorphologist, another equivalent qualified environmental science professional, or the public utilities department.
 - c. Any wetland delineation within a stream corridor shall be approved by the U.S. army corps of engineers prior to submittal of the delineation to the public utilities director.
 - d. If a wetland exists within and extends beyond the one hundred feet (100') of the riparian corridor, the outermost edge of the wetland shall be the outer edge of the riparian corridor.
3. Determination Of Completeness: Upon receipt of an application for a riparian protection permit, the public utilities director shall make a determination of completeness of the application pursuant to section [21A.10.010](#) of this title.
4. Notice Of Applications For Additional Approvals: Whenever in connection with an application for a riparian protection permit, an applicant is requesting another type of approval, such as a building permit, subdivision, conditional use permit, variance,

special exception, or change in zoning or land use, each required notice shall include a reference to all other requested approvals.

5. Minor Exceptions Authorized: Minor exceptions to the provisions of this section may be approved by the public utilities director as provided in this subsection. A minor exception may not authorize an exception to a prohibited land use.

a. Criteria: A minor exception shall be approved only if the public utilities director finds the exception:

(1) Is of a technical nature (i.e., relief from a dimensional or design standard);

(2) Will not authorize a deviation of more than ten percent (10%) from an otherwise applicable numerical standard;

(3) Is required to compensate for some unusual aspect of the site or proposed use or development generally not shared by landowners in the vicinity;

(4) Supports a goal or objective consistent with any RCO master plan as may be adopted, subsequent restoration efforts, or the purpose of this section;

(5) Will protect sensitive natural resources or better integrate development with the riparian environment;

(6) Will avoid filling, grading, and construction of retaining walls; and

(7) Is not likely to:

(A) Interfere with the use and enjoyment of adjacent land;

(B) Create a danger to public health or safety, particularly from flooding or erosion damage;

(C) Change stream bank stability or increase the likelihood of erosion; or

(D) Affect water quality.

b. Conditions May Be Required: In granting a minor exception, the public utilities director may attach any conditions necessary to meet the intent of this section. Any performance bond required by such conditions shall be administered as provided in this title and any other applicable provision of this code.

c. Time Limit: The public utilities director shall prescribe a time limit within which action under the minor exception shall begin. Failure to begin such action within the established time limit shall void the minor exception.

d. Burden Of Proof: The applicant shall have the burden of providing evidence to support a minor exception request.

6. Reasonable Use Exception: If a landowner believes application of the provisions of this section would deny all reasonable economic use of the owner's lot or parcel of

land, the owner may request a reasonable use exception pursuant to this subsection. A request for a reasonable use exception shall be made to the public utilities director and shall include basis for the owner's reasonable use exception request and any information set forth in [title 2, chapter 2.66](#) of this code which the public utilities director deems relevant to the request.

a. Criteria: The public utilities director shall approve a request for a reasonable use exception when all of the following criteria are met:

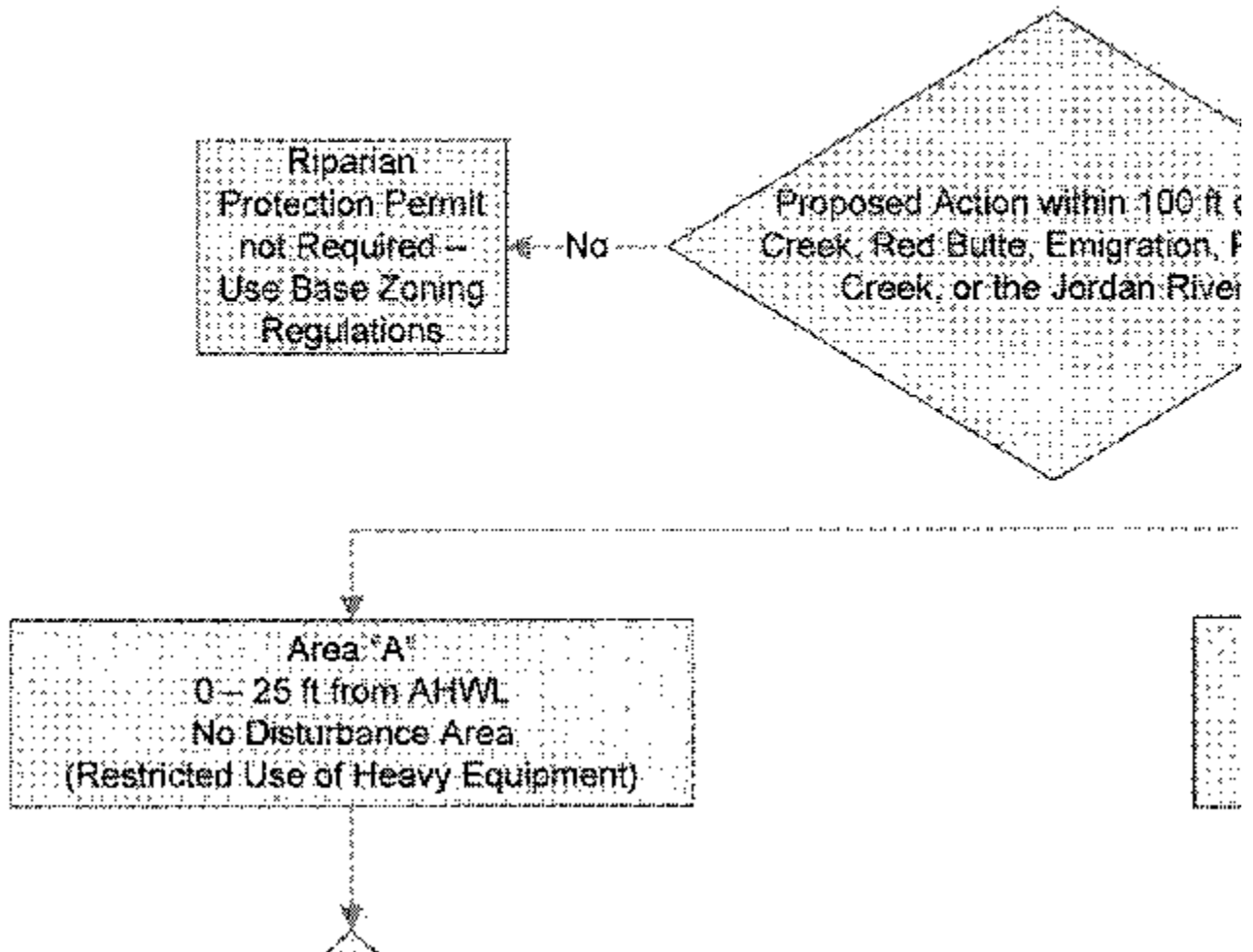
- (1) The application of the provisions of this section would deny all reasonable economic use of the land;
- (2) No other reasonable economic use of the land would have less impact on the riparian corridor area;
- (3) The impact to the riparian corridor area resulting from granting the reasonable economic use request is the minimum necessary to allow for reasonable economic use of the land;
- (4) The inability of the applicant to derive reasonable economic use of the land is not the result of actions by the applicant or the applicant's predecessor;
- (5) The reasonable economic use exception mitigates the loss of riparian corridor area functions to the extent reasonably feasible under the facts of the application; and
- (6) The reasonable economic use exception only authorizes a permitted or conditional use authorized by the underlying district and conforms to other applicable requirements of this title to the extent reasonably feasible under the facts of the application.

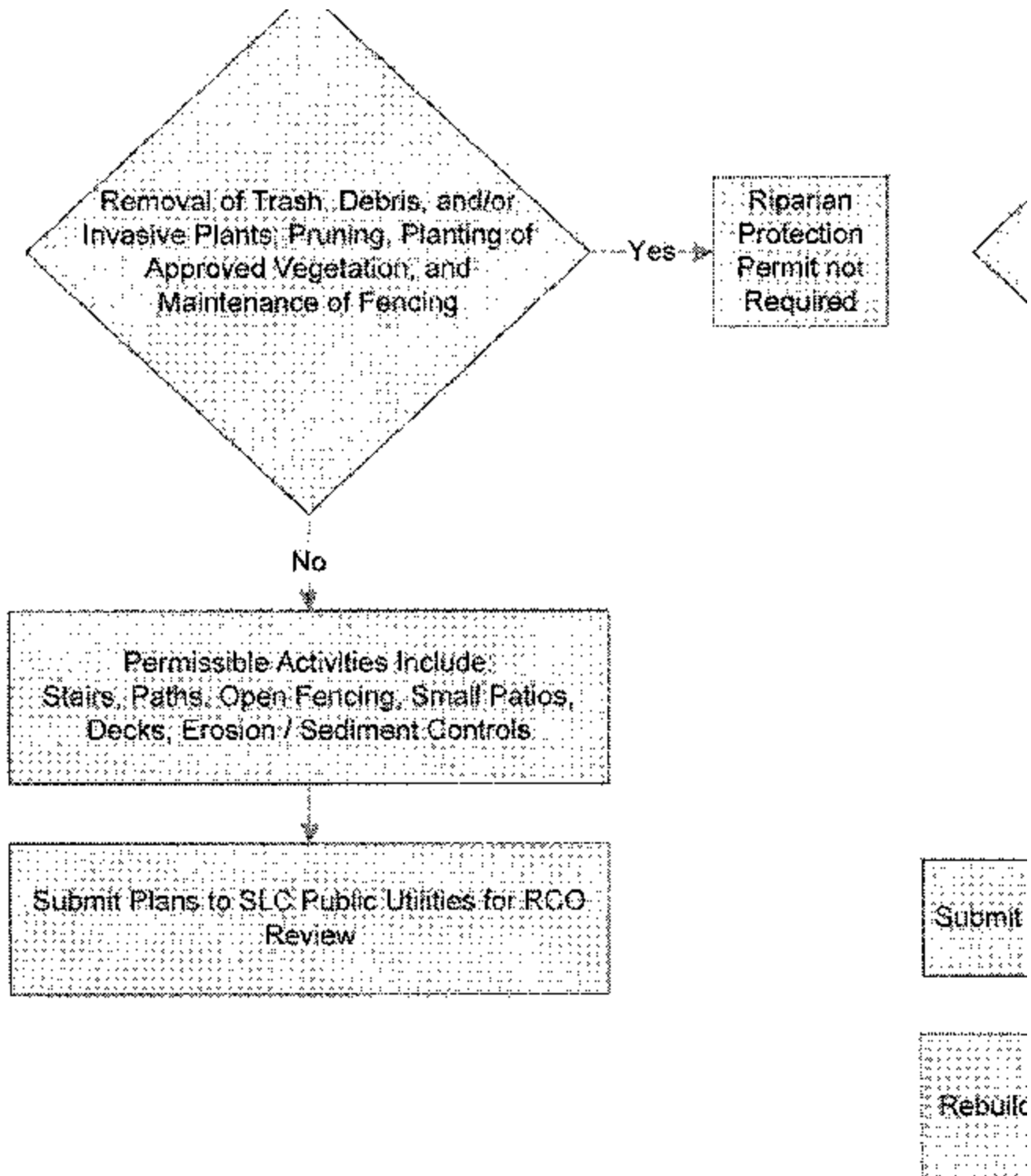
b. Burden Of Proof: The applicant shall have the burden of providing evidence to support a reasonable economic use exception request.

7. Action By Public Utilities Director: Following review of a complete application for a riparian protection permit, and any request for a minor exception or reasonable use exception, the director shall, pursuant to provisions of this section: a) approve the permit; b) approve the permit subject to specific modifications; or c) deny the permit. A riparian protection permit for the proposed use or development shall be approved if the public utilities director determines such action is in accord with the provisions of this section and meets the following criteria:

- a. Construction associated with the use or development is not reasonably anticipated to result in the discharge of sediment or soil into any storm drain, wetland, water body, or onto an adjacent lot or parcel; and
- b. Except as otherwise required under a reasonable use exception, the proposed use or development:

- (1) Will result in equal or better protection for the riparian corridor area, considering the provisions of this section, as reasonably determined by the public utilities director; and
- (2) Will not occupy more than fifty percent (50%) of the total area within areas A and B described in subsection D2 of this section.
8. Appeal Of Decision: Any person adversely affected by a final decision of the public utilities director may within thirty (30) days after such decision appeal to the public utility advisory committee as provided in subsection B2 of this section.
9. Application Process Flow Chart: The riparian corridor permit application process is conceptually illustrated in table [21A.34.130-1](#) of this subsection C9. The provisions of this section shall prevail over any conflict with the flow chart.





D. Permitted Uses:

1. In General: No person shall engage in any ground disturbing use or development on a lot or parcel that will remove, fill, dredge, clear, destroy, armor, terrace, or otherwise

alter the RCO district through manipulation of soil or other material except as allowed by:

- a. This section and, where required by this section, the public utilities director; or
 - b. The U.S. army corps of engineers, Salt Lake County flood control, the Utah state engineer, or any other government agency with jurisdiction over land in the RCO district to the extent provided in subsection A4 of this section.
2. Permitted Use Areas; Developed Land: The following use areas are hereby established for developed lots or parcels within the RCO district as shown on illustration A of this subsection:
- a. Area A: A "no disturbance area" located between the annual high water line and twenty five feet (25') from the AHWL;
 - b. Area B: A "structure limit area" located between twenty five (25) and fifty feet (50') from the AHWL; and
 - c. Area C: A "buffer transition area" located between fifty (50) and one hundred feet (100') from the AHWL.

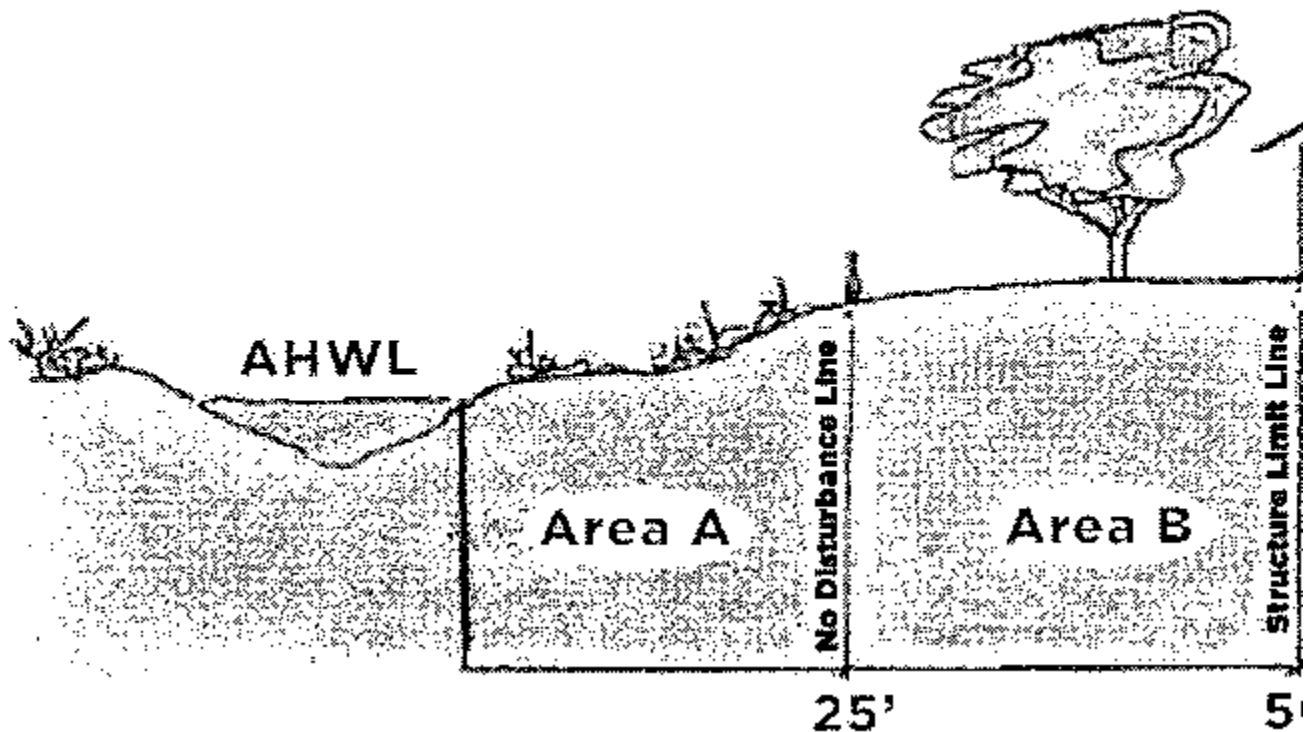


Illustration A
100 Foot Riparian Corridor

3. Permitted Use Area; Undeveloped Land: On a one acre or larger undeveloped lot or parcel within the RCO district, area A, the "no disturbance area" described above, shall be extended to one hundred feet (100') from the AHWL.
4. Permitted Use Table; Developed Land: Permitted uses allowed on a developed lot or parcel within the RCO district are shown on table [21A.34.130-2](#) of this subsection D4. Uses allowed by right are indicated by the letter "P"; uses which require a riparian protection permit are indicated by the letters "RPP"; and prohibited uses are indicated by a blank space.
- a. Any use or development not shown on this table shall be prohibited unless authorized by a provision of this section or another applicable provision of this title.
- b. Table 21A.34.130-2 of this subsection D4 is a summary of the provisions in this subsection D. The text of this section shall control over anything contrary shown on the table.

TABLE [21A.34.130-2](#)

USES ALLOWED BY AREA ON DEVELOPED LOTS

| Use | Area A | Area B | Area C | Comments |
|---|--------|--------|--------|-----------------------------------|
| Maintenance and use of any lawfully established use, development, or structure existing on January 15, 2008; any use, development, or structure established thereafter shall be authorized only as provided in this section | P | P | P | See subsection D6 of this section |
| Any action not constituting development or a ground disturbing activity except as otherwise set forth on this table | P | P | P | |
| Maintenance of existing lawn and garden areas | P | P | P | |
| Herbicide, pesticide and fertilizer application in accordance with best management practices | P | P | P | |
| Replanting noninvasive vegetation | P | P | P | |
| Maintenance tree pruning | P | P | P | |
| | | | | |

| | | | | |
|--|-------|-------|-------|---|
| Minor ground disturbing activity | RPP | P | P | See subsections D7 and E1b of this section |
| Manual removal of trash, storm debris, and fallen, dead, or diseased trees | P | P | P | |
| Invasive plant removal | P | P | P | |
| Planting noninvasive vegetation | P | P | P | |
| Maintenance of existing fence or structure | P | P | P | |
| Pruning or tree removal within utility easement by responsible entity | P | P | P | |
| Tree removal and replacement | P | P | P | Permitted with some exceptions; see subsection E4 of this section |
| Activities approved by U.S. army corps of engineers or state engineer | P | P | P | See subsection D7g of this section |
| Open fence, new | P | P | P | See subsections D8 and E1b of this section |
| Open patio/deck | RPP | P | P | |
| Minimal grading | | P | P | See subsection D8 of this section |
| Compost from yard debris | | P | P | |
| Mechanized removal of fallen, dead, or diseased trees | | P | P | |
| Use or development allowed by underlying district | | | P | See subsection D9 of this section |
| Commercial parking lot | | | | Not permitted; see subsection D9 of this section |
| Leach field, stormwater retention pond, and detention basin | | | | |
| Public utilities work | RPP/P | RPP/P | RPP/P | See subsection D11 of this section |
| | RPP | P | P | See subsection E1 of this section, |

| | | | | |
|--|-----|-----|-----|--|
| New construction or maintenance of access stairs, landscape walls, and paths | | | | particularly subsection E1b of this section for permitted new construction |
| Low impact stream crossing | RPP | | | |
| Maintenance of existing irrigation and flood control devices | P | RPP | RPP | |
| Installation and maintenance of erosion control devices | RPP | RPP | RPP | |
| Building replacement and expansion | RPP | RPP | P | See subsection E2 of this section |
| Removal of debris or trees with heavy equipment | RPP | RPP | RPP | See subsections E3 and E4 of this section |
| Trail on publicly owned right of way | RPP | RPP | P | See subsection E9 of this section |

5. Permitted Use Table; Undeveloped Land: Permitted uses allowed on an undeveloped lot or parcel within the RCO district are shown on table [21A.34.130-3](#) of this subsection D5. Uses allowed by right are indicated by the letter "P"; uses which require a riparian protection permit are indicated by the letters "RPP"; and prohibited uses are indicated by a blank space.

- a. Any use or development not shown on this table shall be prohibited unless authorized by a provision of this section or another applicable provision of this title.
- b. Table 21A.34.130-3 of this subsection D5 is a summary of the provisions in this subsection D. The text of this section shall control over anything contrary shown on the table.

TABLE 21A.34.130-3
USES ALLOWED ON UNDEVELOPED LAND

| Use | Area A (100 Foot Setback Area) | Comments |
|---|--------------------------------|-----------------------------------|
| Maintenance and use of any lawfully established structure or use existing on January 15, 2008; any use, development, or structure established | P | See subsection D6 of this section |

| | | |
|---|-------|--|
| thereafter shall be authorized only as provided in this section | | |
| Any action not constituting development or a ground disturbing activity except as otherwise set forth on this table | P | |
| Maintenance of existing lawn and garden areas | P | |
| Herbicide, pesticide and fertilizer application in accordance with best management practices | P | |
| Replanting noninvasive vegetation | P | |
| Maintenance tree pruning | P | |
| Minor ground disturbing activity | P | See subsections D7, E1b and E4 of this section |
| Manual removal of trash, storm debris, and fallen, dead, or diseased trees | P | |
| Pruning or tree removal within utility easement by responsible entity | P | |
| Tree removal or replacement | P | |
| Invasive plant removal | P | |
| Planting noninvasive vegetation | P | |
| Maintenance of existing fence or structure | P | |
| Activities approved by U.S. army corps of engineers or state engineer | P | See subsection D7g of this section |
| Commercial parking lot | | Not permitted; see subsection D9 of this section |
| Leach field, stormwater retention pond, and detention basin | | |
| Public utilities work | RPP/P | See subsection D11 of this section |
| Trail on publicly owned right of way | RPP | See subsection E9 of this section |

6. Uses Allowed By Right On Developed Land; All Areas: The following uses may be conducted on a lot or parcel within area A, B, or C without a riparian protection permit:

- a. Maintenance and use of any lawfully established structure or use existing on January 15, 2008; any use, development, or structure established thereafter shall be authorized only as provided in this section;
 - b. Maintenance of lawns and gardens, including benches and pathways;
 - c. Application of herbicide, pesticide, and fertilizer, subject to applicable state and federal regulations and in accordance with best management practices identified by the department of public utilities;
 - d. Replanting of vegetation with noninvasive species identified by the public utilities director;
 - e. Maintenance pruning of existing trees; and
 - f. Any other activity which is not a development or other ground disturbing activity.
7. Uses Allowed By Right On Developed Or Undeveloped Land; Area A: The following minor ground disturbing activities shall be allowed by right in a residential district on a developed or undeveloped lot or parcel within area A without a riparian protection permit:
- a. Manual removal of trash, storm debris, and fallen, diseased, or dead trees or other vegetation by the landowner;
 - b. Pruning or removal of trees within a utility easement by the responsible entity;
 - c. Tree removal and replacement as provided in subsection E4 of this section;
 - d. Removal of invasive plants;
 - e. Planting of noninvasive vegetation shown on a list of approved and prohibited vegetation within riparian protection areas published by the department of public utilities and/or the urban forester;
 - f. Maintenance of an existing fence or structure within the original footprint if:
 - (1) Further stream bank armoring is not required; and
 - (2) Soil is not unstable due to steep slope movement; and
 - g. Construction activities approved by the U.S. army corps of engineers under the federal clean water act or the river and harbors act, or by the Utah state engineer under the stream alteration permit program as set forth in subsection A4 of this section.
8. Uses Allowed By Right On Developed Land; Area B: Uses allowed within area B on a developed lot or parcel without a riparian protection permit include:
- a. Any use described in subsection D4 of this section;

- b. Open fencing approved under a general permit promulgated by the public utilities director;
 - c. Construction of open patios which do not involve an existing grade change of more than two feet (2') and decks which are not higher than two feet (2') above grade;
 - d. Minimal grading;
 - e. Compost from yard debris; and
 - f. Mechanized removal of fallen, dead, or diseased trees as provided in subsection E4 of this section.
9. Uses Allowed By Right On Developed Land; Area C: Uses allowed within area C on a developed lot or parcel without a riparian protection permit include any use or development allowed by the underlying district or as set forth in subsections D7 and D8, or E1b of this section, except a leach field, stormwater retention pond, detention basin, or commercial parking lot.
10. Uses Allowed By Right On Undeveloped Land: Uses allowed on undeveloped land shall be as authorized by the underlying base zoning district, except within residential districts, the research park district, public lands districts, and the institutional and urban institutional district. Within such districts the following shall apply:
- a. The one hundred foot (100') nondisturbance area requirement as described in subsection D3 of this section; and
 - b. The use and development standards set forth in subsection E of this section.
11. Public Utilities Work: In addition to the uses listed on the foregoing tables, the city may complete work within the RCO district as provided in this subsection.
- a. Emergency Work: Emergency work to protect an immediate threat to life or land is allowed without a riparian protection permit.
 - (1) The city department undertaking the work shall notify the public utilities director of activity within twenty four (24) hours thereafter.
 - (2) Any stream channel or riparian area damaged as a result of city work shall be restored. The department of public utilities shall issue a riparian protection permit for such restoration work and shall inspect and approve the work undertaken.
 - (3) Temporary emergency structures, sandbags, and other emergency related materials shall be removed from the site in a timely manner.
 - b. Other Work: The following work may be undertaken within a riparian corridor protection area subject to the issuance of a riparian protection permit as provided in this subsection:
 - (1) Matters of public safety;

- (2) Work to protect life or property in an emergency;
- (3) Flood control;
- (4) Channel or riparian restoration;
- (5) Maintenance, including storm drainage system, irrigation structures, utility and street work;
- (6) Public utilities projects approved by the department of public utilities, including, but not limited to, new utility or street work; bridge maintenance, repair, replacement, or new construction; public trails, such as bike and pedestrian paths located on publicly owned land;
- (7) Public gathering places such as amphitheaters and gazebos located on publicly owned land;
- (8) Maintenance access roads; and
- (9) Utility service devices such as stormwater lift stations and irrigation structures.

- c. Equipment: Plans submitted for a riparian protection permit shall include a description of equipment to be used for any work proposed. Such equipment shall be sufficiently sized for the task and chosen to minimize any impact to a stream channel and the riparian corridor area.
- d. Construction Design Standards: The department of public utilities shall develop construction design standards applicable to projects approved under this subsection.

E. Use And Development Standards: Other uses and development standards within the RCO district shall be conducted as provided in this subsection and shall be consistent with any RCO master plan as may be adopted.

1. Area A: Development within area A shall conform to the standards set forth in this subsection.

- a. Developed Lot In A Residential District: On a developed lot in a residential district, no new construction shall occur closer than twenty five feet (25') to the annual high water level, except as permitted by this subsection.
- b. Allowed Minor Ground Disturbing Activities: The following activities shall be allowed in a residential district within area A if heavy equipment is not used and as provided by a riparian protection permit:
 - (1) New construction or maintenance of access stairs, landscape walls; and/or paths between vertical levels within area A and no more than one per level in terraced areas;

- (2) An open permeable patio or deck not located within a streambed and constructed in a manner that:
 - (A) Will not impede any high water flow above the AHWL;
 - (B) Does not change existing grade; and
 - (C) Is not greater than one hundred fifty (150) square feet;
 - (3) Low impact stream crossings;
 - (4) Construction of open fences, beyond the AHWL in any area within the RCO district, if approved by the public utilities director or as authorized by a general permit promulgated by the director;
 - (5) Maintenance of existing irrigation and flood control devices; and
 - (6) Installation and maintenance of erosion control devices, approved, if necessary, by the U.S. army corps of engineers, Salt Lake County flood control, the Utah state engineer or any other government authority with jurisdiction. Such erosion controls may include armoring, if, as reasonably determined by the approving authority:
 - (A) The armoring is authorized or required by the public utilities director and/or one or more of the foregoing government authorities;
 - (B) The armoring is necessary to protect the structural integrity of an existing structure on the land or significant loss of land area due to erosion;
 - (C) The landowner has reasonably exhausted less intrusive methods to prevent significant land damage;
 - (D) The armoring is placed only where necessary to prevent significant land damage in the foreseeable future; and
 - (E) The proposed armoring will not negatively impact other adjacent or downstream land.
2. Area B: Replacement, rebuilding, or expansion of a building within areas A and B shall conform to the standards set forth in this subsection.
- a. Replacement Buildings: Replacement or rebuilding of a preexisting structure in area A and/or B shall require a riparian protection permit and is allowed, consistent with

the continuation of nonconforming uses and noncomplying structures as set forth in section [21A.38.050](#) of this title, if:

- (1) The structure replaces a preexisting structure with the same type of structure or a structure of lesser impact pursuant to underlying zoning district standards;
 - (2) No portion of the footprint of the new structure is any nearer to the AHWL than the nearest point of the preexisting structure to the AHWL;
 - (3) The total square footage of the portion of the footprint of the new structure to be located within area A and/or B does not exceed the total square footage of the footprint of the old structure as it was located within area A and/or B;
 - (4) The new structure:
 - (A) Does not require further armoring of the stream bank; and
 - (B) Is not located in any unstable area due to movement of a steep slope, unstable soils, or geological activity along a fault that will not support the structural footprint; and
 - (C) Complies with applicable requirements of the underlying zoning district and any other applicable city regulation except as otherwise set forth in this section.
- b. Building Expansion: Notwithstanding any other provision of this title to the contrary, an existing structure (not including a deck, patio, or similar structure) may be expanded by up to twenty five percent (25%) in area A or B as provided by a riparian protection permit if such expansion does not result in any structure being built closer to the AHWL than any portion of the existing structure.
- (1) The foregoing rule shall also apply to a replacement structure.
 - (2) As a tradeoff for allowing expansion or replacement with a larger structure, the public utilities director shall require, as a condition of the riparian protection permit, that the landowner spend five percent (5%) of the project cost on stream bank restoration or specify a minimum number of linear feet of stream bank that shall be restored based on the size of the expansion and consistent with any RCO master plan as may be adopted and any subsequent restoration project applicable to the entire stream corridor.
3. Use Of Heavy Equipment In Areas A And B: Heavy equipment may be used in areas A and B as provided by a riparian protection permit issued pursuant to standards promulgated by the public utilities director to minimize and mitigate impacts from the use thereof, and subject to any applicable federal, state, and county requirements.
4. Tree Removal And Replacement: Trees located in area A, B, or C which are fallen, diseased, or dead, or which are less than two inches (2") in caliper, may be removed

without a riparian protection permit so long as replacement trees are planted in the same area.

a. Trees which are removed shall be replaced as follows:

(1) For trees six inches (6") in caliper or less: One to one (1:1);

(2) For trees six (6) to eight inches (8") in caliper: Two to one (2:1); and

(3) For trees eight inches (8") or greater in caliper: Three to one (3:1).

(4) Any replacement tree which does not survive for at least one year shall be replaced again.

b. Removal of live trees is prohibited without approval from the public utilities director. In determining whether a live tree should be removed, the director shall consult with the zoning administrator and the urban forester.

c. Replacement trees shall be an approved species and size shown on the list of approved and prohibited vegetation within riparian protection areas published by department of public utilities and/or the urban forester and shall have the following minimum size:

(1) Deciduous trees shall have a minimum trunk size of two inches (2") in caliper, and

(2) Evergreen trees shall have a minimum size of five feet (5') in height.

d. Any tree which is more than two inches (2") in caliper shall not be removed unless authorized by a riparian protection permit.

e. The director may promulgate a general permit for tree stump removal in any area within the RCO district. Removal of any tree stump located within twenty five feet (25') of the annual high water line shall be approved by the urban forester.

5. Development On Undeveloped Residential Lots Or Parcels: Development on an undeveloped residential lot or parcel which is one acre or larger and located within area A, B, or C shall meet the requirements of this subsection.

a. The no disturbance setback for such lots shall be increased to one hundred feet (100').

(1) If the depth of the lot or parcel is less than two hundred feet (200'), then the setback shall be reduced by the ratio of the actual lot depth to two hundred feet (200').

(2) The development potential (density) located within area B and C may be transferred to the balance of the subject lot or parcel and the minimum lot size in the zoning district may be reduced by the zoning administrator, on advice and consultation with the public utilities director, to accommodate such additional

density. In the alternative, the development potential (density) may be applied to an adjacent lot or parcel within the control or ownership of the applicant.

- b. When a new structure is proposed to be constructed on a lot or parcel with a reduced setback as a result of this subsection, the zoning administrator, on advice and consultation with the public utilities director, may reduce required front and side yard setbacks by a factor of twenty five percent (25%); provided, however, that the setback shall not be reduced by more than the ratio calculated under subsection E5a (2) of this section.
 - c. In all cases the minimum nondisturbance setback shall be at least fifty feet (50').
6. Development In Nonresidential Districts: A required setback on a lot or parcel located in a nonresidential district may be reduced to allow development within twenty five feet (25') of a stream if the stream is daylighted as provided in subsection E7 of this section.
 7. Incentives For Stream Bank Restoration Or Daylighting In Nonresidential Districts: Any applicant for a project that daylights a stream or completes a city approved stream bank restoration program for at least fifty feet (50') along a stream in a riparian corridor shall be allowed to build within twenty five feet (25') of the AHWL, subject to a riparian protection permit approved by the public utilities director, so long as the applicant:
 - a. Incorporates best practice stormwater management facilities to reduce water pollution as specified by the public utilities director;
 - b. Agrees to monitor and control trash, litter, and other pollutants along the stream; and
 - c. Installs an amenity in the corridor such as a plaza, benches, trail, and/or sidewalk that is open to and accessible by the public.
 8. Steep Slope And Soil Stability Standards: As part of a riparian protection permit, the public utilities director may require a geotechnical report and impose greater setbacks for structures or buildings from the structure limit line to ensure safety. When unstable soils are suspected, regardless of the slope, the public utilities director may require a geotechnical report, increase the no disturbance line, and impose greater setbacks for a structure or building from the structure limit line to ensure safety.
 - a. Replacement or repair of an existing retaining structure shall require a riparian protection permit.
 - b. Each proposed project shall be reviewed on an individual basis.
 9. Trails: Trails may be established along a publicly owned right of way within any area located in the RCO district.
 - a. A riparian protection permit shall be required for a trail located in area A.
 - b. Public access to private land adjoining a stream channel shall be prohibited unless authorized by the landowner or pursuant to an access easement.

F. Definitions: For the purpose of this section the following words and terms shall be defined as set forth below and shall apply in addition to the terms defined in chapter 21A.62 of this title:

ANNUAL HIGH WATER LEVEL (AHWL): The average (mean) elevation of City Creek, Red Butte Creek, Emigration Creek, Parleys Creek, and the Jordan River occurring during a calendar year as indicated by fresh silt or sand deposits, the presence of litter and debris, or other characteristics indicative of a high water level.

ARMORING: Material such as rock, concrete or stone filled gabion baskets placed along a stream bank to prevent erosion.

BANK: The confining sides of a natural stream channel, including the adjacent complex that provides stability, erosion resistance, and aquatic habitat.

BEST MANAGEMENT PRACTICES (Also Known As BMPs): The utilization of methods, techniques, or products demonstrated to be the most effective and reliable in minimizing adverse impacts on water bodies and the adjacent stream corridors.

CHANNEL: The bed and banks of a natural stream or river.

DAYLIGHTING: Restoring a piped drainage system to an open, natural condition.

DEVELOPMENT: The carrying out of any building activity, the making of any material change in the use or appearance of any structure or land, or the dividing of land into parcels by any person. The following activities or uses shall be taken for the purposes of these regulations to involve "development":

1. The construction of any principal building or structure;
2. Increase in the intensity of use of land, such as an increase in the number of dwelling units or an increase in nonresidential use intensity that requires additional parking;
3. Alteration of a shore or bank of a creek, pond, river, stream, lake or other waterway;
4. Commencement of drilling (except to obtain soil samples), the driving of piles, or excavation on a parcel of land;
5. Demolition of a structure;

6. Clearing of land as an adjunct of construction, including clearing or removal of vegetation and including any significant disturbance of vegetation or soil manipulation;
7. Deposit of refuse, solid or liquid waste, or fill on a parcel of land; and
8. For the purpose of this section, any ground disturbing activity.

The following operations or uses shall not be taken for the purpose of these regulations to involve "development":

1. Work by a highway or road agency or railroad company for the maintenance of a road or railroad track, if the work is carried out on land within the boundaries of the right of way;
2. Utility installations as stated in subsection [21A.02.050B](#) of this title;
3. Landscaping for residential uses; and
4. Work involving the maintenance of existing landscaped areas and existing rights of way such as setbacks and other planting areas.

EROSION: The process by which a ground surface is worn away by wind, water, ice, gravity, artificial means, or land disturbance.

EROSION CONTROL: A construction method, structure, or other measure undertaken to limit the detachment or movement of soil, rock fragments, or vegetation by water, wind, ice, and/or gravity.

FLOOD HAZARD AREA: An area with a high flood potential as determined by the federal emergency management agency.

FLOODPLAIN: The area likely to be inundated by water when the flow within a stream channel exceeds bank full discharge stage.

FOOTPRINT: The area under a structure at ground or grade level.

GENERAL PERMIT: A permit for a category of uses with similar characteristics authorized by the public utilities director.

GRADING: Any act by which soil is cleared, stripped, moved, leveled, stockpiled, or

any combination thereof, and includes the conditions that result from that act.

GROUND DISTURBING ACTIVITY: Removing, filling, dredging, clearing, destroying, armoring, terracing or otherwise altering an area through manipulation of soil or other material.

HABITAT: The physical environment utilized by a particular species, or species population.

HEAVY EQUIPMENT: A vehicle or machine designed for construction or earthmoving work including, but not limited to, a backhoe, bulldozer, compactor, crane, dump truck, excavator, front loader, grader, scraper, skid-steer loader, or tractor.

HIGH LIQUEFACTION POTENTIAL: Soil conditions where an earthquake with a fifty percent (50%) probability of occurring within a 100-year period will be strong enough to cause liquefaction.

INVASIVE SPECIES: A usually nonnative species that is highly successful in a new habitat and whose presence is significantly detrimental to native species.

LEACH FIELD: A porous soil area, through which septic tank leach lines run, emptying treated waste.

LIQUEFACTION: The strength and stiffness of saturated soil is reduced by earthquake shaking.

LOW IMPACT STREAM CROSSING: A walkway which does not impede the flow of water in a stream channel during a period of high water flow.

MINIMAL GRADING: Movement of soil with hand tools which does not change the existing elevation by more than one foot (1').

NATIVE VEGETATION: One or more plant species indigenous to a particular area.

NO DISTURBANCE LINE: That line which is located twenty five feet (25') from the AHWL as shown on illustration A of this section.

ONE HUNDRED FOOT BUFFER LINE: That line located one hundred feet (100') from the AHWL as shown on illustration A of this section.

100-YEAR FLOODPLAIN: An area adjoining a river or stream likely to be inundated during a flood having a magnitude expected to be equaled or exceeded once in one hundred (100) years on average.

OPEN FENCE: An artificially constructed barrier that allows light transmission and visibility through at least fifty percent (50%) of the fence.

OPEN PERMEABLE PATIO OR DECK: A patio or deck which does not impede the flow of water in a stream channel during a period of high water flow.

OVERLAY DISTRICT: See section [21A.62.040](#) of this title.

PUBLIC UTILITIES DIRECTOR: The duly appointed individual serving as director of the Salt Lake City department of public utilities.

RIPARIAN AREA: An area including a stream channel or wetland, and the adjacent land where the vegetation complex and microclimate conditions are products of the combined presence and influence of perennial and/or intermittent water, associated high water tables, and soils that exhibit some wetness characteristics.

RIPARIAN CORRIDOR: A one hundred foot (100') wide stream corridor measured from the annual high water level (AHWL) of the adjacent stream or wetland, which has a total width of at least two hundred feet (200') plus the width of the streambed plus any adjacent wetland.

RIPARIAN PROTECTION PERMIT: A permit issued by the public utilities director containing conditions which regulate or prohibit development under the provisions of this section.

RIPARIAN SETBACK: The area between the annual high water level of a stream and a line parallel to the stream which is a defined distance from the AHWL.

STORMWATER DETENTION BASIN: An artificial flow control structure used to contain floodwater for a limited period of time to provide protection for areas downstream during peak periods of rain or melting snow.

STREAM: City Creek, Red Butte Creek, Emigration Creek, Parleys Creek and the Jordan River.

STREAM CORRIDOR: A stream and adjacent land within a defined distance from the stream.

STRUCTURE: Anything constructed or erected with a fixed location on the ground or in/over the water bodies in the city. Structure includes, but is not limited to, buildings, fences, walls, signs, and piers and docks, along with any objects permanently attached to the structure.

STRUCTURE LIMIT LINE: That line which is located fifty feet (50') from the AHWL as shown on illustration A of this section.

UNSTABLE SOIL: Soil on a slope of greater than thirty percent (30%) which is likely to move unless stability measures are undertaken to prevent such movement.

WETLAND: Those areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

G. Measurements:

1. All distances noted in this section shall be measured along a horizontal plane from the annual high water level to the applicable riparian boundary line, property line, edge of building or structure, or other point. These distances are not measured by following the topography of the land. Consequently, on steeply sloped topography the measured overground distance may not accurately reflect the distances specified in the permits and conditions specified in this section.
2. When any distance measurement results in a fractional number, the required distance shall be measured to the nearest foot. Any fraction less than one-half foot ($\frac{1}{2}'$) shall be disregarded and fractions of one-half foot ($\frac{1}{2}'$) or larger shall be included in the measurement.
3. When measuring a required minimum distance, the measurement shall be made at the shortest distance between the two (2) points and perpendicular to the riparian setback line. (Ord. 62-08 § 1 (Exh. A), 2008; Ord. 3-08 § 3, 2008)

records shall show the nature of construction, the length and capacity of the principal canals and ditches, and such other information as may be necessary to enable a proper understanding of the city's rights from an examination thereof; and

3. The ownership, operation and maintenance of a sanitary sewer utility system for the collection, treatment, and disposal of wastewater generated within the city, including the facilities necessary therefor; and

4. The ownership, operation and maintenance of a storm water sewer utility system for the collection and disposal of storm water and floodwaters generated or collected within the city.

B. Water Boards, Miscellaneous: The director of the department of public utilities shall represent the city, if consistent with law, on the various water or sewer boards, commissions and similar administering bodies on which the city is entitled to sit by virtue of state law, contractual agreement or bylaws of such bodies.

C. Enterprise Funds: The water, sanitary sewer and storm water sewer divisions of the department of public utilities shall be operated as separate enterprise funds. The collection, accounting and expenditure of each shall be in accordance with existing fiscal policies of the city.

SECTION 2. Title 17 of the Salt Lake City Code is hereby reorganized to include, and there is hereby created within such Title 17, a new Division III entitled "Storm Water Sewer System." Division III of Title 17 shall generally include all Salt Lake City Code provisions relating to the City's storm water sewer utility system, including Chapters 75 through 91 of Title 17.

SECTION 3. Division III of Title 17 of the Salt Lake City Code is hereby subdivided to include, and there are hereby created within such Division III, the following Chapters:

- | | |
|-------|--|
| 17.75 | General Provisions |
| 17.78 | Definitions |
| 17.81 | Storm Water Sewer Utility; Establishment and Funding |
| 17.84 | Discharges Into City Storm Water Sewer System |

17.87 Enforcement

17.91 Miscellaneous

SECTION 4. There is hereby enacted a new Section 17.75.100, to read as follows:

17.75.100 Short Title.

The ordinance codified in this Division III shall be known collectively as the Salt Lake City Storm Water Control Ordinance. References to "this ordinance" shall be deemed to refer to and include all sections contained in Chapters 17.75 through 17.91, inclusive.

SECTION 5. Existing Section 17.75.010 is hereby repealed in its entirety and reenacted as Section 17.75.200, to read as follows:

17.75.200 Findings and Purposes.

A. Findings on Storm Water Runoff Harm. The city council finds that storm water runoff has the potential for causing property damage and erosion; carrying concentrations of nutrients, chemicals, heavy metals, oil and toxic materials into receiving waters and groundwater; degrading the integrity of city streets, curbs, gutters and other infrastructure; reducing residents' access to emergency services; and imposing other hazards to both life and property. For these and other reasons, storm water runoff has the potential for adversely impacting the health, safety, property, recreational opportunities and general welfare of the community. The city council has determined that the potential for such negative impacts will increase as the amount of storm water runoff increases due to the city's physical growth and urban development.

B. State and Federal Regulation. The federal government has established, through the Clean Water Act, regulations regarding storm water runoff for the protection of receiving waters. The State of Utah has also enacted the Water Quality Act, together with related regulations. These federal and state laws and regulations are administered through the Utah Department of Environmental Quality and include requirements that the city obtain, and abide by the provisions of, a UPDES permit for the city's discharge of storm water runoff into receiving waters.

C. Purposes and Objectives. In view of the foregoing, the purposes and objectives of this ordinance are to:

1. Provide for and maintain a storm water sewer system for collecting and disposing of storm water runoff;

2. Establish the inspection, surveillance and monitoring procedures, and all related rules and regulations, necessary to regulate discharges into the storm water sewer system, and to establish the legal authority to enforce compliance with such rules and regulations; and

3. Provide fair, equitable and nondiscriminatory rates and charges which will generate sufficient revenues to construct, operate, improve and maintain the storm water sewer system at a level commensurate with storm water sewer management needs. It shall be the policy of the city that present and future costs of operating the storm water sewer system shall be fairly allocated among the various users of the storm water sewer system through the establishment of rates and charges based upon such factors as the intensity of development of the parcel; the types of development on the parcel; the amount of impervious surface on the parcel; the cost of maintenance, operation, repair and improvements of the various parts of the system; the quantity and quality of the runoff generated; and other factors which present a reasonable basis for distinction, and which will allow for management of the storm water sewer system in a manner that protects the public health, safety and welfare.

SECTION 6. Section 17.75.300 is hereby enacted to read as follows:

17.75.300 Authority.

This ordinance is adopted under the authority of the Utah Water Quality Act, the federal Clean Water Act and the rules and regulations promulgated thereunder relating to storm water discharges, as well as certain requirements set forth in the city's UPDES permit for storm water discharges, issued by the Utah Department of Environmental Quality. Specifically, Section 19-5-115(10), Utah Code Annotated, authorizes the city to enact and enforce rules and ordinances for the implementation of the Water Quality Act, including storm water discharges.

SECTION 7. Section 17.75.400 is hereby enacted to read as follows:

17.75.400 Responsibility for Administration.

The director shall be responsible for administering, implementing, and enforcing the provisions of this ordinance. Any powers granted or duties imposed upon the director may be delegated by the director to persons in the employ of the city and under the supervision of the director.

SECTION 8. Section 17.75.020 is renumbered as Section 17.78.100, and is amended to read as follows:

17.78.100 Definitions:

For purposes of this ordinance, the following words, terms and phrases shall have the following meanings:

“Best management practices” or “BMPs” means schedules of activities, prohibitions of practices, maintenance procedures, treatment requirements, operating practices, techniques, methodologies or other management practices that, through experience and research, have proven reliable to prevent or reduce pollutants from entering the storm water sewer system, and that are recognized, required, or accepted as BMPs under the Clean Water Act, the Water Quality Act, and related rules, regulations, guidance documents and storm water permits issued thereunder. BMPs shall be an integral part of a SWPPP as necessary for compliance with an NPDES or a UPDES permit, or a city discharge permit under this ordinance.

“City” means Salt Lake City Corporation, a municipal corporation of the State.

“City discharge permit” means a permit to discharge storm water into the city’s storm water sewer system, issued pursuant to Section 17.84.400 of this ordinance.

“Clean Water Act” means the federal Water Pollution Control Act, 33 U.S.C. § 1251 *et seq.*, as amended, including all related rules and regulations.

“Construction activity” means activities for which a UPDES General Construction Storm Water Permit, as defined in the rules promulgated under the Clean Water Act, must be obtained. These include construction activities such as clearing and grubbing, grading, excavating and demolition, that disturb one acre of land or more.

“Council” means the Salt Lake City Council.

“County” means the Salt Lake County, Utah.

“Department” means the city’s department of public utilities.

“Developed parcel” means any parcel which has been altered by grading or filling of the ground surface, or by construction of any improvements or other impervious surface area that affects the hydraulic properties of the parcel.

“Director” means the director of the department, or the director’s duly authorized designee.

“Discharge” means any addition or introduction of any pollutant into the storm water sewer system or any watercourse. Discharge includes any storm water runoff.

“Discharge permit” means and includes any permit regulating discharges into the storm water sewer system, including a UPDES permit, an NPDES permit and a city discharge permit.

“EPA” means the U.S. Environment Protection Agency.

“Equivalent residential unit” or “ERU” means the unit of measurement of the magnitude of use of the storm water sewer system attributable to a developed parcel. One ERU is equal to the storm water runoff from a developed parcel containing two thousand five-hundred square feet of combined impervious surface area, in any configuration, which is the estimated contribution of storm water runoff from the average single-family residential dwelling unit and accompanying parcel of land.

“Impervious surface” means that hard surface area of a developed parcel that either prevents or retards the entry of water into the soil mantle and/or causes water to run off the surface in greater quantities or at an increased rate of flow from that which would be present under natural conditions. Impervious surfaces may include, but are not limited to, rooftops, concrete or asphalt paving, walkways, patios, driveways, parking lots or storage areas, trafficked gravel, or other surfaces which similarly impede the natural infiltration into the ground of runoff of storm and surface water.

“Illicit connection” means any drain, pipe, connection or conveyance, whether on, above or below the surface, which is connected from a commercial or industrial land use to the storm water sewer system and which does not meet the requirements of the city, including without limitation the requirement that such connection or conveyance be documented in plans, maps or equivalent records and approved by the director.

“Industrial activity” means, generally, activity for which an NPDES permit or UPDES permit is required. Industrial activity is more particularly defined in 40 C.F.R. § 122.26(b)(14) and Utah Administrative Rule R.317-8-2.5, which definitions are incorporated herein by reference. Such activities include, by way of example, manufacturing, processing or raw materials storage at an industrial plant, and most construction activity on parcels of one acre and greater.

“National Pollutant Discharge Elimination System” or “NPDES” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing discharge permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318 and 405 of the Clean Water Act.

“NPDES permit” means a permit issued by the EPA that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group or general area-wide basis.

“On-parcel mitigation” or “mitigation” means storm water control facilities designed to city standards located on the parcel, which either hold runoff for a short period of time and release it to the storm water sewer system, or hold water for a considerable length of time and disperses it by evaporation or infiltration into the ground.

“Operator” means, with respect to any industrial activity, the person or persons who either individually or taken together meet the following two criteria: (1) they have operational control over the site specifications (including the ability to make modifications in specifications); and (2) they have the day-to-day operational control of those activities at the site necessary to ensure compliance with SWPPP requirements and any permit conditions.

“Parcel” means the smallest separately segregated unit or plot of land which is documented and given a property serial number by the county.

“Person” means any individual, partnership, co-partnership, firm, limited liability company, corporation, association, joint stock company, trust, estate, government entity or any other entity recognized by law, and any offices, departments, institutions, bureaus or agencies thereof.

“Pollutant” means anything that causes or contributes to pollution. Pollutant includes, without limitation: dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, toxic materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, recreational and agricultural waste discharged into water or into the storm water sewer system.

“Pollution” means the alteration, through the introduction of a pollutant, of the physical, thermal, chemical, or biological quality of, or the contamination of, any waters of the State or waters of the United States, that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to the public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

“Premises” means any building lot, parcel, or portion of land whether improved or unimproved, including adjacent sidewalks and parking strips.

“Prohibited discharge” means any discharge prohibited by Section 17.84.100 of this ordinance.

“Responsible party” means (1) an operator; (2) a person who uses the storm water sewer system or discharges to the storm water sewer system, whether or not pursuant to a discharge permit; or (3) a person responsible for emergency response for a facility or operation.

“Single-family residential parcel” means any parcel of land which is improved with a dwelling unit as defined by Section 17.72.030(2)(b) of the Salt Lake City Code.

“Small construction activities” means construction activities, including clearing, grading and excavating land, that result in the disturbance of equal to or greater than one acre and less than five acres of land, including projects of less than one acre that are part of a larger common plan of development or sale.

“State” means the State of Utah.

“Storm water” means (i) storm water runoff, (ii) snow melt runoff, and (iii) surface runoff and drainage from other sources which contains no pollutants.

“Storm Water Pollution Prevention Plan” or “SWPPP” means a plan required by a discharge permit which describes and ensures the implementation of the best management practices and activities to be implemented by a person or operator to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to storm water, the storm water sewer system and/or receiving waters to the maximum extent practicable.

“Storm water rules” means the rules promulgated by the State relating to storm water discharges, and set forth in Utah Administrative Rule R.317-8-3.9.

“Storm water sewer facilities” means any facilities comprising part of the storm water sewer system.

“Storm water sewer system” means the city-owned and operated system of conveyances designed or used for collecting, storing, controlling, treating and/or conveying storm water. This system includes, but is not limited to, sidewalks, roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made or altered channels, reservoirs or piped storm drains. This system does not include any part of the sanitary sewer system.

“Storm water sewer utility” means the utility created through this chapter in Section 2.08.100 of the Salt Lake City Code, which operates, maintains, regulates and improves storm water facilities and programs within the city.

“Undeveloped parcel” means any parcel which is not a developed parcel.

“UPDES permit” means a permit issued by the Utah Department of Environmental Quality that authorizes the discharge of pollutants to waters of the State, whether the permit is applicable on an individual, group or general area-wide basis.

“Utah Pollutant Discharge Elimination System” or “UPDES” means the program delegated to the State by the EPA pursuant to 33 U.S.C. § 1342(b) and Sections 19-5-101 to 123 of the Utah Code.

“Violation” means a violation of any provision of any storm water discharge permit, this ordinance or any order, rule or regulation issued or promulgated hereunder.

“Water Quality Act” means the statute codified at Section 19-5-101 *et seq.*, Utah Code Annotated, as amended, including all related rules and regulations.

“Watercourse” means aqueducts, pipelines, natural or artificial streams or channels through or in which water at any time flows.

SECTION 9 Section 17.75.030 is hereby repealed.

SECTION 10. Section 17.75.040 is hereby repealed.

SECTION 11. Section 17.75.050 is hereby renumbered as Section 17.81.100, and

is amended in its entirety to read as follows:

17.81.100 Establishment of Storm Water Sewer Utility; Administration of Storm Water Sewer Facilities.

The storm water sewer utility has been established pursuant to Section 2.08.100, and is operated as a separate enterprise fund within the department of public utilities. All portions of the storm water sewer system (other than streets, curbs, gutters and sidewalks), shall be operated, managed and administered by the director within the storm water sewer utility.

SECTION 12. Section 17.75.060 is hereby repealed.

SECTION 13. Section 17.75.070 is hereby renumbered as Section 17.81.200, and

is amended to read as follows:

17.81.200 System of Rates and Charges.

A. There are hereby imposed storm water sewer service fees, rates and charges on the owner of each developed parcel within the city, except (i) governmentally owned streets, and (ii) parcels on which are located storm water sewer facilities operated and maintained by, or for, the county. The charges shall fund the administration, planning, design, construction, water quality programming, operation, maintenance and repair of existing and future storm water sewer facilities.

B. Residential service charges for use of the storm water sewer system shall be as follows:

1. Single-family residential and duplex parcels, less than or equal to .25 acres, shall constitute one ERU and are charged three dollars per month.
2. Single-family or duplex parcels greater than .25 acres shall constitute 1.4 ERUs and are charged four dollars and twenty cents per month (tier two).
3. All triplex and fourplex residential parcels shall constitute two ERUs and are charged six dollars per month (tier three).

C. Undeveloped Parcels. Undeveloped parcels shall not be assessed a storm water service charge.

D. Other Parcels. The charge for all other parcels shall be based upon the total square footage of measured impervious surface, divided by two thousand five-hundred square feet, or one ERU, and rounded to the nearest whole number. The actual total monthly service charge shall be computed by multiplying the total ERUs for a parcel by the monthly rate of three dollars.

E. Credit for On-Parcel Mitigation. Nonresidential parcels with on-site storm water detention or retention facilities are eligible for a service charge credit upon application to the director by the person owning the parcel, or such person's agent. The amount of credit, if any, for on-site detention or retention facilities is based on the following formula:

$$P = 0.25 + 0.70 (\text{factor}) + 0.05 (\text{Permit})$$

The foregoing symbols have the following meanings:

| | |
|--------|--|
| P | Percentage of total service charge to be applied to each parcel. |
| 0.25 | Represents ten percent for department administration cost plus fifteen percent for utility operation and maintenance costs (half of the estimated total cost for utility operation and maintenance). |
| 0.70 | Represents fifteen percent for utility operation and maintenance (half of the estimated total cost for utility operation and maintenance) plus fifty-five percent for a utility capital improvement program. |
| Factor | Restricted discharge (Qr) from a developed parcel divided by the peak discharge (Qp) from the same developed parcel which would result if |

the flow restriction facilities were not in place.

0.05 Represents five percent for NPDES storm water permit for the parcel.

Permit The rate adjustment which applies when the parcel has an NPDES discharge permit from the State, will be equal to zero. When the parcel is included in the city NPDES permit, this rate adjustment is equal to one.

1. Mitigation credit is available only for those nonresidential parcels whose storm water facilities meet the city's design and maintenance standards.

2. The director shall provide a complete on-site mitigation evaluation at the request and expense of the person owning the parcel, or the owner's duly authorized agent.

F. Low-income Abatement. A person who owns a single-family residential parcel and is qualified for an abatement of the minimum monthly water charge pursuant to Section 17.16.670 of the Salt Lake City Code shall be eligible for a fifty-percent reduction of the service charge for such parcel.

G. Non-service Abatement. A parcel which is not directly or indirectly benefited by the storm water sewer utility shall be entitled to an abatement of the service charge for said parcel. In order to receive such abatement, the owner, or the owner's agent, shall apply, in writing, to the director pursuant to Section 17.81.400.

SECTION 14. Section 17.75.080 is hereby renumbered as Section 17.81.300, and is amended to read as follows:

17.81.300 Billing and collection.

A. Billing. In the case of developed parcels, the department shall cause billings for storm water sewer utility services to be mailed periodically to the person who has signed for water and sanitary sewer service to the parcel. The amounts to be billed shall be included on the existing department bill as a separate line item. In the case of undeveloped parcels, a storm water-only billing will be sent to the owner of the parcel, as shown on the records of the county recorder.

B. Collection.

1. In the event partial payment is made on a combined bill, the payment shall be applied first to franchise fees due, and then to each service on a pro rata basis.

2. In the event of delinquency, fees and charges levied in accordance herewith shall be a debt due the city. If this debt is not paid within thirty days after billing, it shall be deemed delinquent. The department shall have the right to terminate water, sewer and other city services to the premises to enforce payment. Any uncollected amount due from the person or persons who own the parcel on any inactive, terminated or discontinued account may be transferred to any active account under the same person or persons' name(s) and, upon failure to pay such bill after at least five days' prior written notice, water and other city services to that account and parcel may be discontinued.

3. Water, sewer, garbage and storm sewer service shall not be restored until all charges have been paid in full.

C. Storm Water Sewer Utility Enterprise Fund. All funds received from storm sewer service charges shall be placed in the storm water sewer enterprise fund and kept separate and apart from all other city funds. The collection, accounting and expenditure of all storm water sewer utility funds shall be in accordance with existing fiscal policy of the city.

SECTION 15. Section 17.16.040(B) is hereby renumbered as Section 17.81.400(A), and new Sections 17.81.400 (B), (C) and (D) are adopted, to read as follows:

17.81.400 Storm Water Impact Fee.

A. A fee equal to three hundred seventy four dollars (\$374.00) for each one-fourth (1/4) acre or portion thereof shall be imposed on all new development within city boundaries for storm water improvements.

B. Such fee shall be paid prior to city issuance of a building permit.

C. All storm water improvements to be maintained by the city shall be installed in the public right of way, or on other property owned by the city or with respect to which the city has all necessary easements, shall be subject to approved by the director as to materials, design and construction, and shall be under the

director's exclusive control. All excavation and other permits necessary shall be obtained at the expense of the applicant. All facilities not accepted by the city as part of the storm water sewer system shall be maintained by the property owners.

D. All storm water sewer facilities shall be constructed at the expense of the person, persons or corporation seeking the building permit, without special taxes being levied to pay for the same. All storm water sewer facilities shall be extended, at minimum, to the far end of the lot being serviced. All roads shall be subgraded prior to installation of the storm water sewer facilities.

SECTION 16. Section 17.16.040 is hereby amended to read as follows:

17.16.040 Water Connection Fees and Certain Connection Requirements.

A. * * *

B. When a residential building is demolished and the existing service is reused for a replacement structure within five (5) years after demolition, no new connection fees will be charged. If the meter size is increased, a credit shall be given in the amount of the previously paid connection fee. After five (5) years from date of demolition, the property owner will be required to pay a new meter connection fee.

C. When a commercial building, such as a hotel, motel, industrial building, etc., is demolished the water connection fee shall be based and charged on the new additional use pursuant to subsection A of this section. After five (5) years from the date of demolition, the property owner will be required to pay a new water connection fee.

D. All connection fees shall be paid prior to city issuance of a building permit, except connection fees for water main extensions covered in section 17.16.300 of this chapter, which shall be paid pursuant to such section.

E. In all cases, the pipe and type of materials to be furnished and installed in the public right of way, or per written agreement are to be maintained by the city, shall be approved by the public utilities director and shall be under the director's exclusive control. All excavation and other permits necessary shall be obtained at the expense of the applicant. Pipe and material outside the public way and pipe and materials installed as private pipelines or services shall be maintained by the property owners.

F. All water main extensions shall be made at the expense of the person, persons or corporation petitioning for the extension, and shall be

made without special taxes being levied to pay for the same. All water mains shall be extended, at minimum, to the far end of the lot being serviced. All roads shall be subgraded prior to installation of the public utilities facilities.

G. Additional charges will be imposed for the cost, installation, and inspection of meters. Said fees will be fixed and charged as determined by the director of the department of public utilities on a cost basis.

SECTION 17. Section 17.75.090 is hereby renumbered as Section 17.81.400, and is amended to read as follows:

17.81.500 Appeal of charges.

A. Those single-family and duplex parcels larger than .25 gross acres, but having less than three thousand square feet of impervious surface, may request a reduction of the charge to the tier-one level of three dollars per month.

B. Any owner or person who considers the city's storm water charge as applied to a parcel owned by such person to be inaccurate, or who otherwise disagrees with the utility rate determination, may apply to the director for a service charge adjustment. Such a request shall be in writing and state the grounds for such an appeal. The director shall review the case file and determine whether an error was made in the calculation or application of the charge and make an adjustment to the charge, if necessary, to provide for proper application of the city's rates and charges pursuant hereto. In all cases, the decision of the director shall be final unless appealed.

C. Any appeal of the amount billed under this ordinance shall be filed in writing with the director no later than twenty days after the billing. Any subsequent appeal shall be brought within twenty days after the date of the appealed decision.

D. Appeal of decisions made by the director may be brought before the public utilities advisory committee (PUAC), which may reevaluate the issue raised in the appeal. Decisions of the PUAC shall be final and conclusive.

E. Nothing in this ordinance shall be construed to grant a right to judicial review which does not otherwise exist at law.

SECTION 18. There are hereby enacted new Sections 17.84.100 through 17.84.800, to read as follows:

17.84.100 Prohibited Discharges and Connections.

Except as authorized by this ordinance, or by applicable federal or State law, it shall be unlawful to:

(i) make any discharge for which a discharge permit is required, without first obtaining a discharge permit;

(ii) make any discharge under a discharge permit in violation of the terms and conditions of such discharge permit, or otherwise violate the terms and conditions of a discharge permit; or

(iii) construct, use, maintain or allow to remain in place an illicit connection, whether or not the connection was permissible under law or practices applicable or prevailing at the time of connection.

17.84.200 Preventing Accidental Discharge. Any person conducting an activity which can reasonably be anticipated to create the risk of a prohibited discharge shall provide adequate protection against accidental discharge through the use of structural and non-structural BMPs. Such BMPs include, but are not limited to (i) implementing procedures or practices which tend to reduce the likelihood of an accidental discharge, and (ii) installing structures or facilities designed to prevent such accidental discharge. BMPs to prevent an accidental discharge shall be provided and maintained at the person's own cost and expense. Failure to provide or maintain such BMPs, or any discharge resulting from such failure, shall be considered a violation of this ordinance.

17.84.300 City Discharge Permit.

A. Any person required to obtain an NPDES or UPDES permit in connection with storm water discharges associated with industrial activity, including small construction activity, or to operate under authority of such a permit, as required by the applicable provisions of the Clean Water Act and/or the Water Quality Act shall (i) obtain such permit as required and comply with all provisions of such permit and, in addition (ii) obtain a city discharge permit from the department and comply with the provisions thereof.

B. The term of the city's discharge permit shall be concurrent with the applicable NPDES or UPDES permit.

C. Persons required to obtain a city discharge permit pursuant to this section must file an application for a first-time city discharge permit within 60 days after the effective date of this ordinance.

D. No person may commence industrial activity, including small construction activity, until a city discharge permit required by subsection (A) above has been issued by the department. The city shall not issue a building permit for any project constituting industrial activity, including small construction activity, until a city discharge permit has been issued.

E. The director may include in a city discharge permit any and all reasonable requirements necessary to prevent a prohibited discharge to the storm water sewer system, including requirements to control erosion and sediment, waste such as discarded building materials, concrete truck wash out, chemicals, litter and sanitary waste, or any other pollutant, that may cause adverse impacts to water quality.

17.84.400 City Discharge Permit Application Process.

A. An application for a city discharge permit shall be submitted in writing to the director, and shall include, at a minimum, the following information: (i) the name and mailing address of the applicant, (ii) the location of discharge, (iii) the nature and general description of the activity giving rise to the discharge or potential discharge, (iv) A copy of the applicant's application for an NPDES permit, and (v) any other information reasonably requested by the director. The city anticipates that a full and complete application for an NPDES or UPDES permit, including all attachments, may be sufficient to satisfy these requirements.

B. The director may charge an application fee in an amount reasonably determined by the director to be sufficient to recoup the costs of the application process, but not to exceed \$125.

C. Within five (5) business days after submission of a completed application to the director, the director shall evaluate the application and either approve or deny the application. If approved, the city discharge permit issued by the director shall be accepted in writing by the applicant.

17.84.500 Inspection Right of Entry.

A. As a condition to the issuance of a city discharge permit, all applicants shall grant the director reasonable access to all relevant parts of the premises for the purposes of inspection, sampling, examination, copying of records that must be kept under the conditions of any discharge permit, monitoring compliance with all discharge permits, and performing any additional duties as defined by State and federal law. Reasonable access means, at a minimum, access during normal business hours, without prior notice, to all portions of a parcel and the improvements thereon which may contribute to a storm water discharge, subject only to bona fide safety or security precautions. Each city discharge permit shall contain provisions granting the city appropriate inspection rights. If the applicant has bona fide safety or security measures in force, the applicant shall make the necessary arrangements to allow prompt access by personnel from the city or its designated enforcement agent.

B. The director shall have the right to set up on any operator's property or any other representative location such devices as are deemed

necessary to conduct sampling, inspection, compliance monitoring and/or metering of the facility's discharges.

C. The director may require the operator to install sampling and monitoring equipment at the operator's expense. This sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the operator, at its own expense. All devices used to measure storm water flow and quality shall be calibrated to ensure accuracy.

D. Any temporary or permanent obstruction to safe and easy access to the area or facility to be inspected or sampled shall, unless part of a BMP, be promptly removed by the operator at the written or verbal request of the director. The costs of providing such safe and easy access shall be borne by the operator.

E. The director's request for reasonable access to a facility for the purposes of conducting any activity authorized or required by this ordinance shall not be unreasonably delayed by an operator.

17.84.600 Requirement for Use of Best Management Practices.

A. The director may adopt policies and procedures requiring BMPs for any activity, operation, or facility which may cause or contribute to a prohibited discharge.

B. Any person responsible for a parcel which is, or may become, the source of a prohibited discharge shall be required to implement, at said person's expense, additional structural and non-structural BMP's to prevent a prohibited discharge.

C. Compliance with all terms and conditions of a valid NPDES or UPDES permit shall be deemed compliance with all similar requirements of this Section.

17.84.700 Watercourse Protection.

Every person owning or occupying a parcel through which a watercourse passes shall keep and maintain that portion of the watercourse within such parcel free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or significantly retard the flow of water through the watercourse. In addition, such person shall maintain existing privately-owned structures within or adjacent to the watercourse so that such structures will not become a hazard to the use, function, or physical integrity of the watercourse.

17.84.800 Accidental Discharges.

A. This Section shall apply to any person responsible for a facility, operation or parcel, or responsible for emergency response for a facility, operation

or parcel, whether or not a discharge permit is required to be obtained in connection with such facility, operation or parcel.

B. Notwithstanding other provisions of law, as soon as a person described in (A) above has information of any known or suspected release of materials which are resulting, or may result, in a prohibited discharge, such person shall take the following actions:

1. Such person shall take all necessary steps to ensure the recovery, containment and cleanup of such release.
2. Such person shall immediately notify the director of the incident by telephone. This notification shall be in addition to, and not in lieu of, any other notifications required under applicable law. The notification shall include location of the release, the type, concentration and volume of the material, and any corrective actions taken or planned.
3. Such person shall, within five (5) days following the incident, submit to the director a detailed written report describing the cause of the release and the measures to be taken to prevent similar future occurrences. Such notification shall not relieve the person of any expense, loss, damage or other liability which may be incurred as a result of the release, nor shall such notification relieve the person of any fines, civil penalties or other liability which may be imposed by this ordinance or other applicable law.
4. A notice shall be posted on the person's bulletin board or other prominent place advising employees of the incident, and of any possible dangers and safety precautions to be taken. Such notice shall also include recommended measures to prevent future releases.

C. Each person subject to this Section shall ensure that all employees are familiar with the requirements of this Section.

17.84.900 Release of Storm Water or Discharge Onto Other Property Prohibited.

It shall be unlawful to knowingly, intentionally or recklessly (i) release or direct the flow of storm water into any conveyance facilities, or onto any property, or (ii) make any discharge into any conveyance facilities or onto any property, without the legal right to do so. Violation of this Section shall constitute a class B misdemeanor.

SECTION 19. There are hereby enacted new Sections 17.87.100 through 17.87.950, to read as follows:

17.87.100 Notification of Violation.

Whenever the director finds a violation of this ordinance, the director may serve upon the responsible party a written notice of violation. Such written notice shall be served in person or by certified mail, return receipt requested. Within five (5) days after the receipt of such notice, an explanation for the violation and a plan for the satisfactory correction and prevention thereof, which shall include specific required actions, shall be submitted by the responsible party to the director. Submission of this plan in no way relieves the responsible party of liability for any violations occurring before or after receipt of the notice of violation. Nothing in this Section shall limit the authority of the director to take any action, including emergency actions or any other enforcement action, without first issuing a notice of violation.

17.87.150 Consent Orders.

The director is hereby empowered to enter into consent orders, assurances of voluntary compliance, or other similar documents establishing an agreement with any responsible party who is responsible for noncompliance. Such orders will include specific action to be taken by the responsible party. Consent orders shall have the same force and effect as administrative orders issued pursuant to Sections 17.87.250 and 17.87.300, and shall be judicially enforceable.

17.87.200 Show Cause Hearing.

The director may order any responsible party suspected of causing or contributing to violations(s), to appear before the director and show cause why a proposed enforcement action should not be taken. Written notice shall be served on the responsible party, and shall specify the time and place for the hearing, the proposed enforcement action, the reasons for such action, and a request that the responsible party show cause why this enforcement action should not be taken. The notice shall be served in person on any authorized representative of the responsible party, or by certified mail, return receipt requested, at least seven (7) days prior to the hearing. Whether or not the responsible party appears as ordered, immediate enforcement action may be pursued following the hearing date. A show cause hearing shall not be a prerequisite for taking any other actions against the responsible party.

17.87.250 Compliance Orders.

When the director finds a violation or continuing violation, he may issue an order to the responsible party directing that the responsible party come into compliance within thirty (30) days, or such shorter period as the director may determine. If the responsible party does not come into compliance within the time specified, the director may take any remedial action authorized by this ordinance. The issuance of an order pursuant to this Section shall not be a prerequisite to emergency remedial action deemed necessary by the director. Compliance orders may also contain other requirements to address noncompliance, including additional self-monitoring, and BMPs designed to minimize the amount of

pollutants discharged to the storm water sewer system. A compliance order may not extend a federal standard or requirement, nor does a compliance order release the responsible party from State or federal liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a prerequisite to taking any other action against the responsible party.

17.87.300 Cease and Desist Orders.

When the director finds a violation, or finds that the responsible party's past violations are likely to recur, the director may issue an order to the responsible party directing it to cease and desist all such violations and directing the responsible party to:

A. Immediately comply with all requirements; and

B. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations, implementing additional BMPs, and/or terminating the discharge. Issuance of a cease and desist order shall not be a prerequisite to taking any other action against the responsible party.

17.87.350 Administrative Fines; Costs of Remediation.

A. Notwithstanding any other Section of this ordinance, any responsible party determined to be in violation of this ordinance may be fined in an amount not greater than ten thousand dollars (\$10,000) per violation, per day, as determined by the director in his reasonable discretion; provided, however, that a any fine based on a violation of Section 17.84.900 shall not exceed the fine imposed for a class B misdemeanor.

B. The director may charge a responsible party for the costs of preparing administrative enforcement actions, such as notices and orders, which charge may be assessed whether or not a fine under subsection (A) of this Section is also imposed.

C. The director may also charge a responsible party for the actual costs and expenses incurred by the city to respond to any discharge, regardless of whether such discharge occurs prior to or after the effective date of this ordinance and all remedial action taken. Such charges may include all labor, equipment and materials used by the city.

D. Assessments for fines and/or costs may be added to the responsible party's next scheduled storm water utility service charge, and the director shall have such other collection remedies as may be available for other service charges and fees.

E. Unpaid charges, fines, assessments and penalties shall, after sixty (60) calendar days, be assessed an additional penalty of ten percent (10%) of the

unpaid balance. Thereafter, interest on any unpaid balances, including penalties, shall accrue at a rate of one percent (1%) per month. A lien against the responsible party's property may be sought for unpaid charges, fines, and penalties.

F. Responsible parties desiring to dispute such fines or assessments must file a written request for the director to reconsider the fine or assessment, along with full payment thereof, within thirty (30) days after being notified of the fine or assessment. The director shall convene a hearing on the matter within fourteen (14) days after receiving the request from the responsible party. In the event the director determines that all or any portion of the fines, assessments or charges were improper, such amounts paid by the responsible party to the director shall be returned to the responsible party, without interest.

G. The imposition of fines, assessments or other charges shall not be a prerequisite for taking any other action against the responsible party.

17.87.400 Emergency Suspensions.

The director may order the immediate suspension or shutoff of a responsible party's discharge or storm water sewer system access (after informal notice to the responsible party), whenever such suspension or shutoff is necessary in order to stop an actual or threatened discharge which reasonably appears to present or cause a risk of an imminent or substantial:

- a. damage to the storm water sewer system or harm to the receiving waters,
- b. endangerment to the health, safety or welfare of any residents served by the storm water sewer system,
- c. interference with the operation of the storm water sewer system,
- d. violation of the City's UPDES permit, or
- e. endangerment to the environment.

Any responsible party notified of a suspension of its discharge shall immediately stop or eliminate its contribution or discharge. In the event of a responsible party's failure to immediately comply voluntarily with the suspension order, the director may take such steps as deemed necessary, including immediate severance of the storm water sewer system connection, to enforce such order. The director shall allow the responsible party to recommence its discharge when the responsible party has demonstrated to the satisfaction of the director that the period of endangerment has passed, unless the termination proceedings set forth in Section 17.87.450 are initiated against the responsible party. A responsible party that is responsible in whole or in part, for any discharge presenting imminent endangerment, shall submit to the director a detailed written statement

describing the causes of the harmful contribution and the measures taken to prevent any future occurrence, prior to the date of any show cause or termination of discharge hearing under Sections 17.87.200 and 17.87.450. Nothing in the Section shall be interpreted as requiring a hearing prior to any emergency suspension under this Section.

17.87.450 Termination of City Discharge Permit.

Violation by the holder of a city discharge permit of any of the provisions thereof, or of any of the provisions of this ordinance, shall be grounds for termination and revocation of such permit by the director. The permit holder shall be notified of the proposed termination of a discharge permit and be offered an opportunity to show cause under Section 17.87.200 hereof why the proposed action should not be taken.

17.87.500 Injunctive Relief.

Whenever the director finds a violation or continuing violation, the director may petition any court of competent jurisdiction for the issuance of a temporary or permanent injunction, as appropriate, which restrains or compels the specific performance of the discharge permit, order, rule, regulation or other requirement. In addition, the director may recover reasonable attorney fees, court costs, and other expenses of litigation by appropriate legal action against the responsible party for any violation. Such other action as appropriate for legal and/or equitable relief may also be sought by the director. A petition for injunctive relief need not be filed as a prerequisite to taking any other action against a responsible party.

17.87.550 Civil Fine and Cost Pass Through Recovery.

In the event that a responsible party discharges pollutants which causes the city to violate any conditions of its UPDES permit or otherwise violate any applicable law, rule or regulation, and the city is found to be liable for such discharges of pollutants (including civil or administrative fines, penalties or other charges), then the responsible party shall be fully liable to the total amount of such liability (including civil or administrative fines and penalties) incurred by or otherwise assessed against the City, including the administrative costs incurred.

17.87.600 Referral to State of Utah For Action.

The director may refer to the State criminal violations of any discharge permit conditions. The Utah Attorney General's office may offer the county the option of prosecuting the violator. Should the county decline, the State, in its discretion, may initiate appropriate criminal action. The director may assist the Utah Attorney General's office or the county with appropriate support for the action taken.

17.87.650 Performance Bonds.

The director may decline to reissue a city discharge permit to any responsible party which has caused a violation, unless such responsible party first files a satisfactory bond, payable to the director, in a sum not to exceed a value determined by the director to be necessary to achieve consistent compliance.

17.87.700 Liability Insurance.

The director may decline to reissue a city discharge permit to any responsible party which has caused a violation, unless the responsible party first submits proof that it has obtained financial assurances sufficient to restore or repair damage to the storm water sewer system, and indemnify and hold the city harmless from any future violation.

17.87.750 Water Supply Severance.

Whenever the director finds that a person has violated or continues to violate the provisions of this ordinance, or of any discharge permit, or order, rule or regulation issued or promulgated hereunder, water service to the person may be discontinued. Service will only recommence, at the person's expense, after it has satisfactorily demonstrated its ability to comply.

17.87.800 Public Nuisances.

Any violation of this ordinance is hereby declared a public nuisance and shall be corrected or abated as directed by the director. In addition to any other powers granted the director under this ordinance, the director shall be entitled to exercise all of the powers and remedies set forth in the provisions of the Salt Lake City Code governing nuisances, and shall be entitled to reimbursement for any costs incurred in removing, abating or remedying such nuisance.

17.87.850 Contractor Listing.

Responsible parties who have caused or significantly contributed to a violation:

A. Are not eligible to receive a contractual award for the sale of goods or services to the city as long as such violation is continuing and/or any fines hereunder remain unpaid, or remedial action required hereunder remains unperformed; and

B. Existing contracts for the sale of goods or services to the city may be terminated at the discretion of the mayor.

17.87.900 Nonexclusive Remedies.

The provisions of this ordinance are not exclusive remedies. The director reserves the right to take any, all, or any combination of these actions against a noncompliant responsible party. Enforcement of violations will generally be in

accordance with the department's enforcement plan. However, the director reserves the right to take other action against any responsible party when the circumstances warrant. Further, the director is empowered to take more than one enforcement action against any noncompliant responsible party. These actions may be taken concurrently.

17.87.950 Compensatory Actions.

In lieu of enforcement proceedings, penalties and remedies authorized by this ordinance for a violation of a storm water sewer discharge permit or requirement, the director may impose alternative compensatory actions such as storm drain stenciling, watercourse cleanup, and similar community service; or may impose education at the responsible party's expense.

SECTION 20. There are hereby enacted new Section 17.91.100 through 17.91.200, to read as follows:

17.91.100 Severability.

The provisions of this ordinance are hereby declared to be severable. If any provision, clause, sentence, or paragraph of this ordinance, or the application thereof to any person, establishment or circumstance shall be held invalid, such invalidity shall not affect the other provisions or application of this ordinance.

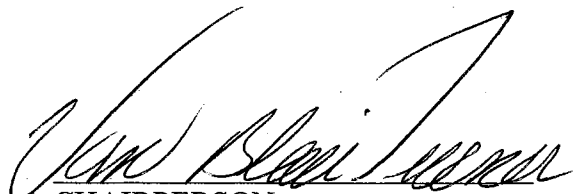
17.91.200 Ultimate Responsibility.

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor prohibited discharge. Review and approval of structures, facilities, and operating procedures shall not relieve a person from the responsibility of modifying a facility or process as necessary to meet the requirements hereof.

SECTION 21. This ordinance shall take effect immediately upon the date of its first publication.

Passed by the City Council of Salt Lake City, Utah this 14 day of

August, 2007.


CHAIRPERSON

APPROVED AS TO FORM
Salt Lake City Attorney's Office
Date 7/25/07
ERL

ATTEST:


CHIEF DEPUTY CITY RECORDER

Transmitted to Mayor on August 17, 2007.

Mayor's Action: X Approved. Vetoed.


MAYOR


CHIEF DEPUTY CITY RECORDER



(SEAL)

Bill No. 53 of 2007.

Published: 8-24-07

APPENDIX C – Salt Lake City Stormwater Quality Program Best Management Practices

DRAFT

Salt Lake City Storm Water Quality Best Management Practices

| BMP | Description |
|---------|--|
| BMP 1: | Continue with the present schedule of drainage system maintenance. Clean all required portions of the system. |
| BMP 2: | Inspect all major storm drains and detention basins within the permit cycle. |
| BMP 3: | Support "Tan Can" yard waste pickup for Salt Lake City residents. |
| BMP 4: | Support the Neighborhood annual cleanup program for Salt Lake City residents. |
| BMP 5: | Remove leaves from gutters during the fall leaf season. |
| BMP 6: | Support the Salt Lake City curbside recycling effort. |
| BMP 7: | Support scheduled citizen clean-up days of selected waterways. |
| BMP 8: | Track drainage system maintenance using Cityworks® system. |
| BMP 9: | Conduct annual training for drainage system maintenance personnel. |
| BMP 10: | Continue a program for the disposal of sediments from storm drain cleaning. . |
| BMP 11: | Continue requirements for on-site detention for developments. |
| BMP 12: | Enforce the requirements of Salt Lake City Ordinances |
| BMP 13: | Provide Standard BMPs for site development to developers and engineers. |
| BMP 14: | Continue annual review program for private drainage detention facilities. |
| BMP 15: | Support the existing Salt Lake City Street Sweeping program. |
| BMP 16: | Review salt pile storm water management. |
| BMP 17: | Continue procedures for monitoring storm water management on public construction projects. |
| BMP 18: | Review proposed street projects for applicability of structural BMPs. |
| BMP 19: | Review all proposed storm water projects for applicability of structural BMPs. |
| BMP 20: | Review detention basins for feasibility of retrofitting for water quality enhancements. |
| BMP 21: | Continue education program on the proper use of pesticides and fertilizers. |
| BMP 22: | Continue SWMP program similar to the pretreatment program. |
| BMP 23: | Maintain industrial user NAICS/SIC code database. |
| BMP 24: | Coordinate with POTW pretreatment program. |
| BMP 25: | Maintain records and database of all illicit connection investigations. |
| BMP 26: | Review all new developments plans for compliance and illicit connections. |
| BMP 27: | Promote City-County Health Department Household Hazardous Waste Facility and Collection Days. |
| BMP 28: | Continue program for investigating illicit flows and connections. |
| BMP 29: | Implement Memorandum of Understanding (MOU) with City-County Health Department. |
| BMP 30: | Maintain staff to respond to reports of illicit discharges. |
| BMP 31: | Promote interagency cooperation concerning illicit flows investigation. |
| BMP 32: | Pursue prosecutions and court ordered solutions to contamination problems. |
| BMP 33: | Investigate dry weather flows. |
| BMP 34: | Continue to implement storm drain spill response plan. |
| BMP 35: | Maintain a list of certified contractors, suppliers and contracting procedures to respond to containment and cleanup of spilled materials. |
| BMP 36: | Continue to provide HAZWOPER training to applicable personnel |
| BMP 37: | Continue to promote program of public reporting of illicit discharges. |
| BMP 38: | Continue education program for industrial users on oil and toxic materials disposal. |
| BMP 39: | Continue education for residential users on oil and toxic materials disposal. |
| BMP 40: | Continue procedure for reporting and investigating possible exfiltration of sanitary sewage to the storm drain system. |
| BMP 41: | Maintain an industrial user's database. |
| BMP 42: | Obtain and review SWPPP prepared by industrial users within the Salt Lake City area. |
| BMP 43: | Identify and Prioritize industrial and priority commercial groups. |
| BMP 44: | Staff a position for coordinating storm water pollution prevention. |
| BMP 45: | Distribute water quality education materials to Industrial and priority commercial facilities. |
| BMP 46: | Continue a storm water quality-training program for development review personnel. |
| BMP 47: | Coordinate with Salt Lake County regarding BMP guidance information for construction sites. |
| BMP 48: | Continue to obtain and review SWPPP prepared by contractors. |
| BMP 49: | Develop a program to enforce SWPPP. |
| BMP 50: | For City projects identify erosion control measures as a specific bid item. |
| BMP 51: | Participate in education training and seminars conducted by the State of Utah and other agencies. |

APPENDIX D – Standard Operating Procedures

DRAFT

STANDARD OPERATING PROCEDURE
PUMPING OUT METER BOXES, TRENCHES, ETC.

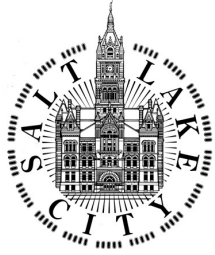
July 2008

It is a violation of the Federal Clean Water Act to dispose of any materials in the storm drain, other than rainwater, runoff, or uncontaminated groundwater. The State Department of Environmental Quality and City ordinance provide for enforcement and fines on inappropriate discharges into the storm drain systems.

As public employees we need to set an example and follow all regulations. These storm water rules may be violated by pumping contaminated water from meter boxes or trenches into the storm drain system. To help avoid any issues please be aware of the following procedures when pumping liquids from these facilities.

The following are types of discharges to be aware of.

1. Clean Water is clear or stagnated ground water with out foul smelling odors. Clear water may be discharged onto pervious areas such as grass, soil, and impervious areas that lead to the storm drain system.
2. Water that has a light sheen of oil, (rainbow surface) chemical smell or turbidity (dark, cloudy or muddy) may not be discharged into storm drain. Contact E.V. Holland @ 483-6710, the liquid will be need to be removed by a Vactor Truck.
3. If the liquid has a sewer smell, floating fecal matter, indications of sewerage. Contact Ryan Brodhead @ 483-6759, the material will need to be removed by a Vactor Truck.
4. If the liquid is a heavy oil, has an oily or petroleum fuel smell, or a strong chemical odor indicating a potential hazardous waste. Contact Greg Archuletta @ 483-6821, so a company can be notified to pump it out.
5. Chlorinated water may not be discharged into the storm drain system near a fresh water stream. If you are pumping or flushing out a location that contains chlorinated water near a stream or river, it will need to be treated to remove the chlorine. Contact Florence Reynolds @ 483-6864 for further information.



Public Utilities Operation & Maintenance
 Operations and Training Manual
 Standard Operating Instructions

Revision: March 14th 2011
 Effective Date:

Prepared By: B. Shelley
 Approved By:

Activity: *Planned water excavation /Storm drain protection*
No:

Section:
Subsection:

Purpose:

- To assure a safe uniform means of allowing water into a storm drain line without causing unwanted earthen materials to enter during a planned culinary water line repair or replacement.

Scope:

- This Activity provides the guidelines for proper and safe means of allowing water into a storm sewer during a planned water repair or replacement

Responsibility & authority:

Supervisor- *to prepare and preauthorize the initial work to be done at the excavation site, as well as keep in communication with the onsite lead man and surrounding residents.*

Lead man- *to keep charge of onsite crew, equipment, vehicals and work to be done as well as keeping in communication with supervisor and surrounding residents.*

Helper & Truck driver- *duties as assigned by aforementioned*

Work Preparation: Make sure service trucks have wattles, gravel bags or other materials for inlet protection.

| <u>Labor:</u> | <u>Equipment:</u> | <u>Material (as required):</u> |
|---|--|--|
| <p><i>Senior water system maintenance operator</i></p> <p><i>Water system maintenance operator II</i></p> <p><i>Water system maintenance operator I</i></p> | <p><i>Valve and hydrant service truck</i></p> <p><i>Backhoe</i></p> <p><i>Dump truck</i></p> <p><i>Two or three inch trash water pump</i></p> <p><i>Two square mouth shovels</i></p> | <p><i>Six gravel filled bags or One straw wattle</i></p> |



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No:

Section:
Subsection:

Preparation:

- 1) *The water maintenance Lead man determines where the discharge may travel to.*
- 2) *Lead man will appoint one or all maintenance crew members make sure gutters leading to inlet are free of debris, place inlet protection, (i.e. Wattle, Gravel bags Etc.) nearest to downstream inlet as possible.*
- 3) *Lead man will check valves needed for shut down prior to excavation, to isolate waterline to be worked on*

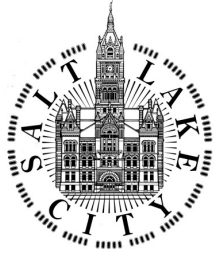
Work Steps:

- 1) *The Lead man will then make efforts to keep water from pipeline from entering the excavation.*
- 2) *When and if there is need for the use of a trash pump for dewatering the excavation, the lead man will make sure that the discharge will be directed toward the predetermined inlet.*
- 3) *The truck driver will do all that is possible to decant the water from the truck bed before driving to dumpsite.*

Work Completion:

After replacement is finished, and the excavation is in the process of being backfilled, One or more crew members will clean the area around the excavation, as well as the gutter, from the earthen material that was deposited by the pump, backhoe and or the dump truck.

The inlet protection will be removed once the excavation has been backfilled and completed.



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Related Documents:

The lead man will fill out the work order pertaining to the excavation, including man hours, vehicle running time, parts and supplemental work orders.



Public Utilities Operation & Maintenance
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Revision: March 15th 2011
Effective Date:

Prepared By: B Shelley
Approved By:

Activity: *Transporting dry excavated materials & spoils*
No:

Section:
Subsection:

Purpose:

- *To provide guidance, steps and instructions in Transporting dry excavated materials & spoils*

Scope:

- *This activity provides guidance, maintenance and inspection of a vehicle before, during and after transporting dry materials and spoils*

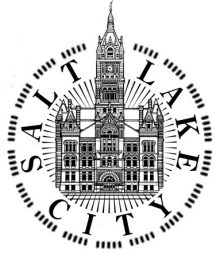
Responsibility & Authority:

- **Supervisor-** *to ensure maintenance worker I has the proper type and size of truck that is needed.*
Lead man- *to be in constant communication with truck driver, while on site and when on the road to and from disposal site.*
Maintenance worker I- *to fill out daily maintenance log, to be a wear of amount of dirt and or spoil is being loaded on truck, as well as keeping the truck clean and making sure everything works appropriately, with truck*

Work Preparation:

- 1) *Utilize truck with proper containment for material.*
- 2) *Determine disposal site of excavated material.*
- 3) *Determine best route to be taken to disposal site.*

| <u>Labor:</u> | <u>Equipment:</u> | <u>Material (as required):</u> |
|---|---|---------------------------------------|
| <p><i>Water maintenance supervisor</i></p> <p><i>Senior water maintenance operator</i></p> <p><i>Water maintenance operator I</i></p> | <p><i>Backhoe/Loader</i></p> <p><i>Dump truck</i></p> | <p><i>Not applicable</i></p> |



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Prepared By: B Shelley
Approved By:

Activity: *Transporting dry excavated materials & spoils*
No:

Section:
Subsection:

Pre-job Preparation and Safety:

- 1) *Truck driver will perform pre-trip inspection at start of the shift.*
- 2) *Truck driver will fill out appropriate maintenance log.*
- 3) *Lead man will give truck driver address to job site as well as any special instructions needed.*
- 4) *Truck driver will make sure the vehicle has the appropriate amount of fuel.*

Work Steps:

- 1) *Truck driver will make sure that the truck is not being over filled.*
- 2) *He will clean of all debris from side rails, tailgate and trailer hitch area.*
- 3) *He will transport the material in a manner to minimize spillage and tracking.*
- 4) *While driving he will check truck and road for spillage*
- 5) *He will utilize one route of transport going to and from disposal site, if possible.*

Work Completion:

If needed all maintenance crew members will back track route to clean of any spillage that may have occurred. When possible the truck driver will wash truck and any equipment that was used in a designated wash area.

Related Documents:

Truck driver will fill out any and all reports of damage if incident occurs due to spillage



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Prepared By: B Shelley
Approved By:

Activity: *Transporting dry excavated materials & spoils*

No:

Section:

Subsection:



Public Utilities Operation & Maintenance
Operations and Training Manual
Standard Operating Instructions

Revision: March 17th 2011
Effective Date:

Prepared By: B Shelley
Approved By:

Activity: *Transporting wet excavated materials & spoils*
No:

Section:
Subsection:

Purpose:

- *To provide guidance, steps and instructions in Transporting wet excavated materials & spoils*

Scope:

- *This activity provides guidance, maintenance and inspection of a vehicle before, during and after transporting wet materials and spoils*

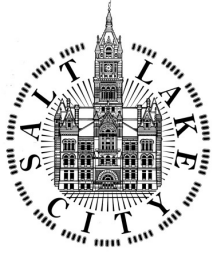
Responsibility & Authority:

- **Supervisor-** *to ensure maintenance worker I has the proper type and size of truck that is needed.*
Lead man- *to be in constant communication with truck driver, while on site and when on the road to a dump site.*
Maintenance worker I- *to fill out daily maintenance log, to be a wear of amount of dirt and or spoil is being loaded on truck, as well as keeping the truck clean and making sure everything works appropriately, with truck.*

Work Preparation:

- 1) *Utilize truck with proper containment for material.*
- 2) *Determine disposal site of excavated material.*
- 3) *Determine best route to be taken to disposal site.*

| <u>Labor:</u> | <u>Equipment:</u> | <u>Material (as required):</u> |
|---|---|---------------------------------------|
| <p><i>Water maintenance supervisor</i></p> <p><i>Senior water maintenance operator</i></p> <p><i>Water maintenance operator I</i></p> | <p><i>Dump truck</i></p> <p><i>Backhoe/Loader</i></p> | <p><i>Not applicable</i></p> |



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Activity: *Transporting wet excavated materials & spoils*
No:

Section:
Subsection:

Pre-job Preparation and Safety:

- 1) *Truck driver will perform pre-trip inspection at start of the shift.*
- 2) *Truck driver will fill out appropriate maintenance log.*
- 3) *Lead man will give truck driver address to job site as well as any special instructions needed.*
- 4) *Truck driver will make sure the vehicle has the appropriate amount of fuel.*

Work Steps:

- 1) *Truck driver will make sure that the truck is not being over filled.*
- 2) *He will decant truck bed to minimize water in load.*
- 3) *He will transport the material in a manner to minimize spillage and tracking.*
- 4) *While driving he will check truck and road for spillage*
- 5) *He will utilize one route of transport going to and from disposal site, if possible.*

Work Completion:

If needed all maintenance crew members will back track route to clean of any spillage that may have occurred. When possible the truck driver will wash truck and any equipment that was used in a designated wash area

Related Documents:

Truck driver will fill out any and all reports of damage if incident occurs due to spillage



Public Utilities Operation & Maintenance
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Standard Operating Instructions

Revision: April 5th
Effective Date:

Prepared By: Bret Shelley
Approved By:

Activity: Main line repair / non emergency
No:

Section:
Subsection:

Purpose:

- To provide guidance, steps and instructions on how to perform a non emergency main line repair.

Scope:

- This activity provides guidelines for the proper operation, maintenance and inspection of a non emergency main line repair.

Responsibility & Authority:

- **Supervisor**-To initiate and set up job site, and assign crew for daily work assignment as well as to keep in constant communication with crew and surrounding residents until the work is completed.
- **Lead man** – to oversee all aspects of job while on site as well as keeping in constant communication with supervisor and area residents until work is completed.
- **Helper** – to assist lead man and at times take over responsibility of lead man when needed.
- **Truck driver** – To assist helper and lead man in all aspects of work while on site as well as drive dump truck to and from site and to and from disposal site.

- Work Preparation:**
- 1) Supervisor paints location for Blue Stakes with White marking paint.
 - 2) Supervisor leaves a door hanger with the property owner explaining the work to be done.
 - 3) Supervisor then prepares a list of signs, barricades and storm drain protection needed.
 - 4) Supervisor notifies dispatch to call for Blue Stakes 48 Hours before excavation begins.
 - 5) Supervisor has dispatch order signs and barricades the day before starting the project.
 - 6) Supervisor assigns the project to a crew

| <u>Labor:</u> | <u>Equipment:</u> | <u>Material (as required):</u> |
|---|---|--|
| 1- Senior water maintenance operator (Lead person) 2- Water maintenance operator II (Helper) 3- Water maintenance operator I (Truck driver) | 1- Valve & hydrant maintenance truck 1- Backhoe(may or may not be transported on a flatbed trailer) 1- 10 or 12 wheeled dump truck 2- Drop inlet bags 6- Gravel bags or equivalent (minimum) | Stainless steel repair clamp that coincides with size and type of water main. If pipe is split there may be need for a new piece of pipe size and length of that which is split as well as two transition couplings. |



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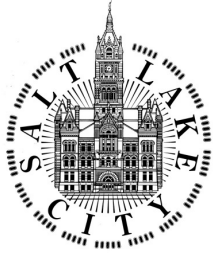
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Subsection:

Pre-job Preparation and Safety:

- 1) Crew researches the water shut down and the materials needed. Makes sure all materials are on the truck or obtain them from the store house prior to leaving the yard.
- 2) Crew arrives on site and holds a tailgate safety meeting.
- 3) Crew checks to make sure all utilities have been located and marked in the area of the excavation.
- 4) Crew makes sure all customers affected have been notified either in person or, if this is not possible, with a door hanger in advance of any shut down.
- 5) Crew makes sure all signs and guards are set up according to the standard barricade manual.
- 6) Crews put in place storm drain protection BMPs.

Work Steps:

- 1) Crew removes and sets aside any landscaping/ sod that can be saved.
- 2) If the main needs to be shut down, the crew leaves at least one valve slightly open to make certain there is positive pressure in the main and notifies dispatch as to which valves are closed and an approximate time the water will be off.
- 3) While excavating, the crew makes sure the excavation site is safe according to O.S.H.A. rules and regulations. The crew saves the soil if it is reusable.
Crew excavates below the main so standing water will not be back siphoned in to the water system gravel will also be placed in the bottom of the excavation at least 6" below the pipe. The crew installs a trash pump to assure that the water in the excavation does not rise over any opening in the water system.
- 4)-Once the water has been pumped below the pipe the last valve is closed.
- 5) -Crew swaths or sprays repair parts with liquid chlorine (Bleach) that will come in contact with the water in the pipe
- 6)-Crew installs repair parts, making sure that no foreign material enters the pipe. Block and or stabilize pipe and repair parts were needed
- 7) Crew opens hydrant or wash-out valve, at the highest point of the shutdown as possible, Then open valve on the other side of the shutdown to remove any air trapped in the line. Check for leaks while this is taking place. After the air is removed, open a valve the rest of the way. Allow water to clear from fire hydrant or



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No:

Section:
Subsection:

wash-out valve before shutting down. Allow system to pressurize (listen to key on valve till no more sound is heard). Open the rest of the valves that were closed check for leaks once more.

Work Completion:

- 1. If there are no leaks, the crew then informs dispatch as to which valves have been opened back up and the time that they were opened.*
- 2. The crew greases the fittings and wraps with plastic to prevent corrosion.*
- 3. The crew back fills with sand to six inches above the top of the pipe for proper bedding, the then backfills with imported fill or reuses the existing soil that was saved from excavation. Fill must be tamped in eight inch lifts to avoid excavation failure. If excavation is in asphalt the hole needs to be squared up and left down for blacktop. If it is in a high traffic area, and it is not possible to blacktop it immediately after the repair, the hole is to be covered with a traffic plate or filled to the top and a request to get it ready for blacktop will be necessary.*
- 4. The crew restores the area with saved landscape materials or requests a work order for the landscape crew to make restoration and leaves the hole down for top soil and sod.*
- 5. If concrete has been removed or damaged it is necessary to request a work order for the concrete crew to repair or replace the cement.*
- 6. The crew calls barricade truck to pick up any unnecessary signs and barricades. The barricade truck driver checks with the area supervisor to make sure that the barricades will not be needed for another job in the area before he has them picked up.*
- 7. The crew communicates with the property owner as to work still needing to be completed and leaves the department door hanger that tells the customer what to expect and when.*
- 8. The lead person completes all areas of the work order along with the requests for supplemental work orders and delivers it to his supervisor as soon as possible.*
- 9. The supervisor reviews the work order for completeness and adds the digging permit number and the cost of the permit to the work order.*
- 10. Supervisor makes sure required supplemental work orders are requested. He/she then turns the work order in to the work order office for closure.*

Related Documents:

Digging permit, Lane closure permit and Supplemental work orders which could include concrete, lawn care, sprinkler repair, backfill, welders, drainage & sewer



Public Utilities Operation & Maintenance
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DRAFT

SAMPLING PROCEDURES

STORM EVENT REQUIRMENTS AND LOCATIONS

With regards to regards to representative sampling, the UPDES Permit States, Part III B “Minimum monitoring expected to be accomplished each year shall be a planned monitoring frequency twice a year (spring and fall, subject to weather conditions)”. All samples shall be collected from a storm event that is greater than 0.2 inches of precipitation with a three hour period that occurs at least 72 hours from the previously measurable rainfall greater than 0.1 inch.

Salt Lake City has three sampling stations in its MS4 that represent light industrial, Mixed Use and low density residential. Lee Drain at 5500 West and California Avenue, Forest Dale at Forest Dale golf course at 2650 South and McClelland Street and Gale Street at 900 South and Gale Street.

Prior to forecasted storm event samplers will be taken out to the sampling stations rain gauges, velocity meters, batteries and sample hose will connected and tested for operation volume calibrations, distribution arm operations, color of desiccant beads and parameters will be checked. And the sampler will be set to trigger upon rain and level.

Representative Storm Sampling Check list

- ✓ Mobile Phone
- ✓ First aid Kit
- ✓ Marking pens
- ✓ Keys to sample stations and gates
- ✓ Grab Sample coolers
- ✓ Grab Sample pole and bottle cradle
- ✓ Glass quart bottle
- ✓ Extra tubing and clamps
- ✓ Tools including nut driver set, screw driver. Wrenches and knife
- ✓ Flash light
- ✓ Latex gloves
- ✓ Paper towels
- ✓ Traffic cones
- ✓ Reflective safety vest
- ✓ Sample bottles
- ✓ Rain gear including jacket, pants and boots
- ✓ **Grab Sample Bottle set:**
- ✓ VSS/TSS (1) Quart plastic no preservatives
- ✓ Oil and grease (1) Quart amber preserved with HCl from Lab.
- ✓ Cyanide (1) Quart plastic preserved with NaOH from Lab.
- ✓ DOC (1) glass 100 ml. minimum no preservative
- ✓ TOC (2) 40ml.viles preserved with H₃po₄
- ✓ **Composite bottle set:**
- ✓ (1) ½ Gallon plastic no preservative
- ✓ (1) Quart plastic no preservative
- ✓ (1) pint plastic H₂ SO₄
- ✓ (1) pint plastic HNO₃

WATER – Waterline Flushing for Routine Maintenance

1. Preparation
 - a. Determine flow path of discharge to inlet of waterway.
 - b. Determine chlorine residual
 - c. Neutralize chlorine residual

2. Process
 - a. Clean flow path.
 - b. Protect inlet structures.
 - c. Use diffuser to dissipate pressure to reduce erosion possibilities.

3. Clean-up
 - a. Clean flow path
 - b. Remove inlet protection.

4. Documentation

Salt Lake City Public Utilities Storm Water Utility Program Standard Operating Instructions

Pre-Construction

***Purpose:** To assure that new construction sites will properly detain storm water runoff without adversely impacting the SLC storm drain system or adjacent properties.*

***Scope:** To update the Storm Water GIS with new parcel, building footprint & pervious area information.*

Procedures:

- Review approved drainage plans & calculations for adequate detention/retention storage
- Identify all storm water quality & detention/retention devices for monitoring/inspection
- Locate project's property boundaries. This may include inquiries with the Salt Lake County Recorder's Office to get up-to-date information on parcel combinations/splits.
- Import an electronic drawing or manually scale the building footprints & landscaped/pervious areas for the new site into the GIS
- Calculate overall, total pervious, building and total impervious areas for the new site
- Identify the facility ID (service number) for the new site. All billing and work order information is tied to this ID.
- Add all pertinent information for new site into Public Utilities Billing System (PUBS) and open a "Storm Water New Construction Investigation"

Salt Lake City Public Utilities Storm Water Utility Program Standard Operating Instructions

Construction

Purpose: To monitor new construction sites for existing storm water quality and for proper installation of storm water quality & detention/retention devices.

Scope: Inspect new construction sites biweekly for storm water quality compliance, construction progress, installation of storm drain system and troubleshooting.

Procedures:

- Coordinate with contractor for initial site visit. Identify which storm water devices (if any) are crucial for detention or retention and that these items must be inspected before buried – specifically, underground chamber systems and storage vaults.
- Visit the site at least once every two weeks to evaluate construction progress, storm water device installation, storm water quality management and to troubleshoot problems
- Set up inspection times for specific device installations (underground detention systems)
- Perform a final inspection when construction is complete. All storm water quality & detention/retention devices must be installed and working properly in order to receive a Certificate of Occupancy from Salt Lake City Public Utilities.
- Calculate the monthly storm water charges and discounts (if applicable) for the site. Enter all pertinent information into Public Utilities Billing System (PUBS). Close the “Storm Water New Construction Investigation”
- Create a “Storm Water Utility Program Post-Construction Inspection” work order. This work order will automatically create a recurring post-construction inspection work order once every five years.

Salt Lake City Public Utilities Storm Water Utility Program Standard Operating Instructions

Post-Construction

***Purpose:** To evaluate existing facilities for site conditions and proper maintenance of storm water quality & detention/retention devices.*

***Scope:** Inspect existing sites at least once every five years for storm water quality & detention/retention compliance, performance/condition/maintenance of storm drain system and overall site changes (if any).*

Procedures:

- Visit site. Identify and inspect all storm water quality & detention/retention devices for proper maintenance and functions. These devices may include: oil/water separators, snouts, orifice plates, sumps, daylight pipes, detention/retention ponds, underground chamber systems and any other direct outlets to the Salt Lake City storm drain system.
- Notify property owners of any storm water quality violations or maintenance issues (if any). Give property owners a finite amount of time (30 days maximum) to address problems. Also enter this information in the “Comments” section on the work order.
- Revisit site to insure that all violations and /or maintenance issues have been properly addressed (if applicable). If not properly addressed, any storm water billing discounts will be suspended until the issue is resolved.
- Update Public Utilities Billing System (PUBS) and the storm water GIS with any changes in building, pervious or impervious areas (if applicable)
- Close the “Storm Water Utility Program Post-Construction Inspection” work order. This action will automatically generate another work order in five years.

GOLF COURSE
MAINTENANCE STANDARDS

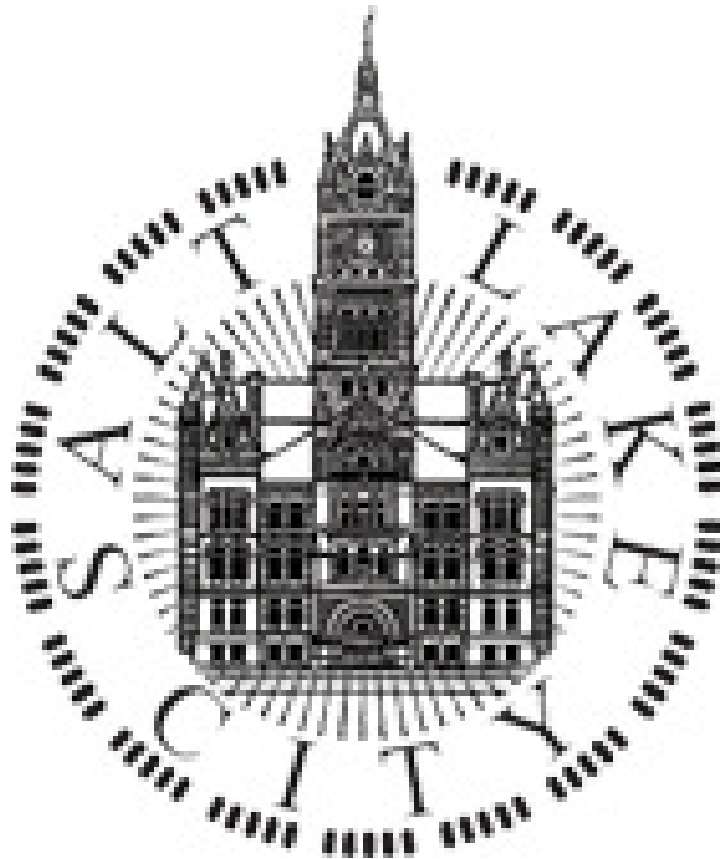


SALT LAKE CITY GOLF DIVISION

October 1, 1997

STANDARD OPERATING PROCEDURES

Salt Lake City Public Services Business District Maintenance



Created: July 23, 2015
Last Revision: July 23, 2015

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BUSINESS DISTRICT – Chemical Application Pesticides, Herbicides, Fertilizers

1. Preparation
 - a. Notify your immediate Supervisor that you will be handling pesticides, herbicides or fertilizer.
 - b. Perform a Work Hazard Analysis and assemble all required Personal Protective Equipment (PPE).
 - c. Make sure your Utah State Pesticide Applicator's License and/or Chemical Handling Certification is complete and up-to-date before handling any chemicals.
 - d. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
 - e. Use pesticides only if there is an actual pest problem and periodically test soils for determining proper fertilizer use.
 - f. Time and apply the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendation for best results ("Read the Label").
 - g. Know the weather conditions. Do not use pesticides if rain is expected. Apply pesticides only when wind speeds are low (less than 5 mph).

2. Process
 - a. Always follow the manufacturer's recommendations for mixing, application and disposal. ("Read the Label").
 - b. Don PPE.
 - c. Do not mix or prepare pesticides for application near storm drains, preferably mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
 - d. Employ techniques to minimize off-target application (e.g. spray drift, over broadcasting.) of pesticides and fertilizers.

3. Clean-up
 - a. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
 - b. Triple rinse containers, and use rinse water as product. Dispose of unused pesticide as hazardous waste.
 - c. Store all chemicals as per owner's recommendation. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label").

4. Documentation
 - a. Keep copies of MSD sheets and applicator directions for all pesticides, fertilizers and other hazardous products used.
 - b. Record fertilizing and pesticide application activities, including date, individual who did the application, amount of product used and approximate area covered.

BUSINESS DISTRICT – Cleaning Equipment

1. Preparation
 - a. Review process with all Business District employees.
2. Process
 - a. Wipe off dirt, dust and fluids with disposable towel.
 - b. Wash equipment in approved wash station.
3. Clean-up
 - a. Dispose of towels in proper trash receptacle.
 - b. Sweep floor and dispose of debris.

BUSINESS DISTRICT – Mowing and Trimming

1. Preparation
 - a. Process overview with all employees.
 - b. Check the oil and fuel levels of the mowers and other equipment; fill if needed.
2. Process
 - a. Put on appropriate Personal Protective Equipment (PPE) (Steel toe boots, eye protection, and hearing protection).
 - b. Mow and trim the lawn.
 - c. Sweep or blow clippings to grass areas.

3. Clean-up
 - a. Mowers are to be scraped and brushed at shop – dry spoils are dry swept and disposed of.
 - b. Wash equipment in approved wash station.

BUSINESS DISTRICT – Planting Vegetation (Starters)

1. Preparation
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Dial 811 or 1-800-662-4111.
 - c. Decide where any spoils will be taken.

2. Process
 - a. Dig holes; place spoils near the hole where they may easily be placed back around roots. Spoils can be discarded and new fresh soil installed when the planting is completed. They can also be placed on a tarp and covered to stay contained until re-use. Avoid placing spoils in the gutter.
 - b. Bring each plant near the edge of the hole dug for it.
 - c. Check the depth of the hole, and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.
 - d. Carefully remove pot or burlap.
 - e. Place the plant in the hole.
 - f. Backfill the hole with existing spoils, fresh soil, compost, and a litter fertilizer if desired. Do not use excessive amendments.
 - g. Water the plant.
 - h. Stake the plant, if necessary, to stabilize it.

3. Clean-up
 - a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if some of the dirt would be lost through openings in the bed.
 - b. Sweep dirt from surrounding pavement(s) into the planter area.

- c. Transport spoils to their designated fill or disposal area.

BUSINESS DISTRICT – Planting Vegetation (Seeds)

1. Preparation
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Dial 811 or 1-800-662-4111.
 - c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.

Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

2. Process
 - a. Place the seed and any cover using the pre-determined application method (and rate).
 - b. Lightly moisten the seed.
 - c. Water as required to establish plantings.
3. Clean-up
 - a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.
 - b. Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area.
 - c. Transport spoils to their designated fill or disposal area.

BUSINESS DISTRICT – Transporting Equipment

1. Preparation
 - a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.
 - b. Conduct pre-trip inspection of equipment.
 - c. Inspect and test rigging devices and tie-off points.

2. Process
 - a. Safely load and secure equipment on trailer or truck.
 - b. Safely load and secure fuel containers for equipment usage.

3. Clean-up
 - a. Off load equipment.
 - b. Wash equipment, if needed, according to the SOP for Cleaning Equipment SOP.
 - c. Conduct post-trip inspection of equipment.
 - d. Store equipment and trailer in proper location.

BUSINESS DISTRICT/STORM DRAIN – Catch Basin Cleaning

1. Preparation:
 - a. Complete the pre-trip inspection on the truck and trailer. Check holding tank, valves, tie-downs, hoses, pumps, fittings. Make sure they are clean and in good working order.
 - b. Perform a Work Hazard Analysis for this procedure. Assemble and don all appropriate PPE; including rubber boots, water proof pants, eye protection, particle mask, face shield and the appropriate gloves.
 - c. Make sure the fuel tank is full and you have extra gasoline in an approved steel gas can with a self closing spout.
 - d. Clean sediment and trash grate.
 - e. Do visual inspection on outside of grate.
 - f. Make sure nothing to be replaced.
 - g. Do inside visual inspection to see what to be cleaned.

2. Process
 - a. Cover drain grates in the shallow storm drain boxes upstream of the deep sump drain box. Use TPO cover and secure with sand bags to insure effluent from gutter does not enter the storm drain.
 - b. Remove drain cover grate on deep sump box storm drain.

- c. Place air bag drain plug in the downstream discharge pipe. Make sure safety line is connected to the air bag and secured to the drain cover grate to prevent ever loosing the air bag down the drain.
 - d. Remove floating debris.
 - e. Insert the pump inlet hose into the bottom of the drain box. Use portable trash pump to remove all water from the affected drain boxes.
 - f. Remove sediment and submerged debris with a shovel and place it into containment buckets. Clean using a trash pump or wet vacuum to suck out standing water and sediment. Sediments can be disposed of in the waste stream to the landfill.
 - g. Use a high pressure washer to clean any remaining material out of catch basin, while capturing the slurry with the trash pump or wet vacuum. Move truck downstream of pipe to next catch basin.
3. Clean-up
 - a. All effluent will be captured in a holding transport tank for proper disposal at the septic sewer waste treatment facility.
 - b. Clean and rinse tank into a clean-out basin at the Facilities Shop.
 - c. When it evaporates, clean it up with a loader, put it into a dump truck and take to the landfill.
4. Documentation
 - a. Keep logs of each catch basin cleaned and the GIS location.
 - b. Record the amount of waste collected in holding tank and disposed of at the waste water treatment facility.
 - c. Keep any notes or comments of any problems.
5. In case of accidental discharge into storm drain
 - a. Call Salt Lake City, Public Utilities Department at (801-483-6700).
 - b. Protect storm drains in immediate area.
 - c. Take action for immediate containment. Use absorption litter, absorption tubes.
 - d. If discharge enters storm sewer immediately begin catch basin cleaning procedure above.

BUSINESS DISTRICT/STORM DRAIN – Fixture Painting

1. Preparation
 - a. Perform a Work Hazard Analysis for this procedure. Assemble and don all appropriate PPE; including eye protection, the appropriate gloves and a respirator if necessary.
 - b. Calculate the amount of paint required for the job
 - c. Use low VOC or water based paints if possible.
 - d. Determine whether the wastes will be hazardous or not and the required proper disposal of said wastes.
 - e. Determine locations of storm drain inlets and sewer inlets that may need to be protected.
 - f. Prepare surfaces to be painted without generating wastewater by sandblasting and/or scraping.
 - g. Thoroughly sweep up all sand surplus sand will enter the waste stream to the landfill.
 - h. Thoroughly sweep up all blasting particles, and/or paint scraping particles. These will be scooped up and placed in recovery buckets and taken to the recycling or disposal site at the landfill.
 - i. If paint stripping is needed, use a citrus-based paint remover whenever possible.
 - j. If wastewater will be generated, use curb, dyke, etc. around the activity to collect the filter and collect the debris.
2. Process
 - a. Paint fixture.
 - b. Prevent over-spraying of paints and/or excessive sandblasting.
 - c. Use drip pans and drop clothes in areas of mixing paints and painting.
 - d. Store latex paint rollers and brushes in air tight bags to be reused later with the same color.
 - e. Have available absorbent material and other BMP's ready for an accidental paint spill.
3. Clean-up
 - a. Paint out brushes and rollers as much as possible. Squeeze excess paint from brushes and rollers back into the containers prior to cleaning them.
 - b. Pour excess paint from trays and buckets back into the paint can containers and wipes with cloth or paper towels. Dispose of the towels according to the recommendations on the paint being used.

- c. Rinse water-based paint brushes in the sink after pre-cleaning. Never pour excess paint or wastewater from cleanup of paint in the storm drain.
 - d. Cleanup oil based paints with paint thinner. Oil based paints and thinners will be contained in a metal container and disposed of at the recycling facility at the landfill. Filter solvents for reuse if possible and/or store in approved drum for recycling. Rags and cleaning equipment will be stored in a NFPA approved storage container.
 - e. Dispose of waste collected by placing it in a garbage container. Left-over paint and solvents should be stored for later use in an NFPA approved storage locker. (do not place these liquids into un approved containers or into the waste stream to the landfill).
- 4. Accidental discharge into storm system
 - a. To report call 911 Emergency to report a hazardous material spill and call Salt Lake City, Public Utilities Department at (801-483-6700).
 - 5. Documentation
 - a. Provide a written report of any discharges into storm drain system immediately.

BUSINESS DISTRICT/STORM DRAIN – Masonry and Concrete Work

- 1. Preparation
 - a. Perform a Work Hazard Analysis for this procedure. Assemble and don all appropriate PPE; including rubber boots, eye protection and the appropriate gloves.
 - b. A thorough” Concrete Waste Management” training should be completed and documented prior to any employee performing masonry or concrete work.
 - c. Store dry and wet material under cover and away from drainage areas.
- 2. Process
 - a. Remove and damaged concrete that may need to be replaced. Set aside or retain waste concrete to be taken to an authorized concrete recycling facility.
 - b. Prepare and compact sub-base.
 - c. Set forms and place any reinforcing steel that may be required.
 - d. Determine how much new concrete will be needed.
 - e. Locate or construct an approved concrete washout facility.
 - f. Remove forms and store on the appropriate site.

- g. Set pavers in sand or mortar bed.
 - h. When set and dry work in polymeric sand into joints.
3. Clean-up
- a. Perform washout of concrete trucks and equipment in designated areas only.
 - b. Do not washout concrete trucks or equipment into vacant land, storm drains, open ditches, streets or streams.
 - c. Cement and concrete dust from grinding activities is swept up and removed from the site.
 - d. Sweep all debris, cuttings or grindings from gutter and remove to enter waste stream to landfill.
 - e. When cleaning masonry saw make sure all cuttings and debris is contained in buckets and washed out into the washout container to be entered into the waste stream to the landfill.

BUSINESS DISTRICT/STORM DRAIN – Garbage Storage

1. Preparation
- a. Locate dumpsters and trash cans with lids in convenient, easily observable areas.
 - b. Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
 - c. Provide training to employees to prevent improper disposal of general trash.
2. Process
- a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
 - b. Locate dumpsters on a flat, impervious surface that does not slope or drain directly into the storm drain system.
 - c. If possible store dumpsters, or refuse container in a fenced enclosure.
 - d. Install raised earthen berme, curbing or vegetation strips around storage areas to control water entering/leaving storage areas.
3. Clean-up
- a. Keep areas around dumpsters clean of all litter and garbage.
 - b. Have garbage bins emptied as often as needed to keep from overflowing.
 - c. Wash out bins or dumpsters as needed to keep orders from becoming a problem

BUSINESS DISTRICT/STORM DRAIN – Snow Removal and De-icing

1. Preparation
 - a. Store de-icing material under a covered storage area
 - b. Slope loading area away from parking lot.
 - c. Design drainage from loading area to collect runoff before entering storm water system.
 - d. Wash out vehicles (if necessary) in approved washout area before preparing them for snow removal.
 - e. Calibrate spreaders to minimize amount of de-icing material used and still be effective.
 - f. Provide vehicles with spill cleanup kits in case of hydraulic line rupture or other spills.
 - g. Train employees in spill cleanup procedures and proper handling and storage of de-icing materials.

2. Process
 - a. Load material into trucks or spreaders carefully to minimize spillage.
 - b. Distribute the minimum amount of de-icing material to be effective on roads, sidewalks, plazas and pedestrian walkways.
 - c. Park trucks loaded with de-icing material inside when possible.

3. Cleanup
 - a. Sweep up all spilled de-icing material around loading area
 - b. Clean out trucks after snow removal duty in approved washout area
 - c. Provide maintenance for vehicles in covered area
 - d. Sweep up residual sand from crosswalks, plazas, sidewalks and public walkways when weather permits. This material can be re-used or placed in a containment to be entered into the waste stream to the landfill.

BUSINESS DISTRICT/STORM DRAIN – Plazas, Gutters, Crosswalk and Sidewalk Sweeping

1. Preparation
 - a. Prioritize cleaning routes to use at the highest frequency in areas with the highest pollutant loading
 - b. Restrict street parking prior to and during sweeping using regulations as necessary
 - c. Increase sweeping frequency just before the rainy season
 - d. Perform preventative maintenance and services on ATLV and sweepers to increase and maintain their efficiency.
 - e. Determine the right equipment for the job. ATLV (litter and leaves), Armadillo Sweeper (Gutters, silt, salt, gravel, small litter).

2. Process
 - a. Areas are to be swept as needed or specified by the city. Business District maps are used to ensure all service areas are swept at a specified interval.
 - b. Drive ATLV and Armadillo sweeper safely and pickup debris.

3. Clean-up
 - a. equipment at the Facilities Shop.

4. Cdried out, haul themis toand treatment facility This material can be placed in an authorized containment area to be entered into the waste stream to the landfill.Documentation
 - a. Keep accurate logs to track block face swept and areas still requiring sweeping.

1. **BUSINESS DISTRICT/STORM DRAIN - Pedestrian Walkway, Sidewalk and Plaza Cleaning**Preparation
 - a. Determine if chemical cleaners will be necessary. If chemicals are to be used the procedures outlined in this Standard Operating Procedure are to be followed.
 - b. Obtain cleaning and disinfecting chemicals that are PH neutral, and present no or minimal impact on the environment.
 - c. Employees performing the work must have documented OSHA Hazardous Communications and Blood Borne Pathogen training.
 - d. Understand MSDS streetstrstreets for handling of product.

- e. Complete a Work Hazard Assessment. Assemble and don all appropriate PPE; including but not limited to rubber boots, water proof pants, eye protection, face shield, apron and the appropriate gloves.
 - f. Vehicles must have containment kit on board.
 - g. Prepare all trucks and equipment necessary for transportation of contaminated liquids. (*Note: See page 15)
 - h. Follow Standard Operating Procedures for Storm Drain Cleaning (*Note: See page 5) during all sidewalk cleaning operations.
2. Process
- a. Auto-Scrubbing Machine
 - i. Use a self contained clean water, chemical distribution and wastewater recovery auto-scrubbing machine. Discharge must be treated as contaminated liquids (*Note: See page 15) of this Standard Operating Procedure.
 - b. Power Washing
 - i. Place drain blocking air bags and pump liquid (*Note: See page 5) of this Standard.
 - ii. For human/animal waste or vomit cover with powder or liquid enzyme treatment and wait 10 minutes, spray with disinfectant and wait 10 minutes, then scoop solids up with a shovel or dust pan. Place solids
 - iii. Pre-treat paved surface with chemical degreaser.
 - iv. Place chemical feed tube of power washer into tank of pre-mixed disinfecting cleaner.
 - v. Use hot water feature to wash paved surfaces.
 - vi. Follow Storm Drain Cleaning procedures (*Note: See page 5) of this Standard to capture all effluent flowing into gutter or storm water system.
3. Clean-up
- a. Clean and rinse power washing equipment and place back in the proper storage place.
 - b. Follow procedures for Transportation and Disposal of Contaminated Liquids (*Note: See page 15) of this Standard Operating Procedure.

STREETS/STORM DRAIN – Transporting Soil and Gravel

- 1. Preparation

- a. Perform pre-trip inspection of truck and trailer.
 - b. Dry out wet materials before transporting.
 - c. Make sure you have a tarp to cover load during transport.
 - d. Make sure you know and understand the SWPPP requirements for the site you will be working at. Training must take place before beginning transportation of soil and gravel.orders
 - e. Identify an authorized cleanout containment area.
2. Process
 - a. Use a stabilized construction entrance to access or leave the site where materials are being transported to/from.
 - b. Observe load limits for the equipment used and do not exceed load limits.
 - c. Cover truck or trailer bed with a secured tarp before transporting.
 - d. Follow the SWPPP requirements for the specific site to/from which the materials are being hauled.
3. Clean up
 - a. Use broom or sweeper to clean up any materials tracked out on the roads from site.
 - b. Wash out equipment truck and other equipment. This material can be placed in a containment to be entered into the waste stream to the landfill.
4. Documentation
 - a. Keep records in the comment section of the work order of any materials that is tracked out of site and what was done to clean it up and how long it took to clean up and what the weather conditions were at the time.

BUSINESS DISTRICT/ STORM DRAIN – Irrigation Excavation Repair/Replacement

1. Preparation
 - a. Determine where discharge flow will go
 - b. Place inlet silt protection at nearest downstream storm drain inlet
 - c. Clean Gutters leading to inlet

irrigation .
2. Process

- a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Dial 811 or 1-800-662-4111
 - a. Direct any discharge to pre-determined area
 - d. Place spoils on a tarp, in bucket or directly on a truck to be re-used as backfill. Do not store spoils or other materials in the gutter or where it can enter the storm water system. backfill and compact excavation
 - e. Haul of excavated spoils, other material or stock pile nearby for re-use or to landfill.
3. Clean up
- a. Clear gutter/waterway where water flowed
 - b. Clean up all areas around excavation
 - c. Clean up travel path of truck material
 - d. Clean up the area surrounding the storm water drain.
4. Documentation
- Complete a written report if material is discharged into the storm drain system and call Salt Lake City, Public Utilities Department at (801-483-6700).

BUSINESS DISTRICT/STORM DRAIN – Transporting Contaminated Liquid and Water

1. Preparation
- a. Employees performing the work must have documented OSHA Hazardous Communications training.
 - b. Understand MSDS streets for handling of product.
 - c. Obtain any necessary signage, permits or licenses necessary to transport waste.
 - d. Utilize trailer and tank with an approved containment tank for transportation of contaminated liquids.
 - e. Make sure transport vehicle has containment kit and clean-up equipment and material on board.
 - f. Determine the authorized waste treatment facility used to properly dispose of contaminated liquids.

- g. Complete a Work Hazard Assessment. Assemble and don all appropriate PPE; including but not limited to rubber boots, water proof pants, eye protection, face shield, apron and the appropriate gloves.

- 2. Process
 - a. Load and Transport in manner to eliminate human contact, spillage & tracking of liquids.
 - b. Check truck for spillage.
 - c. Utilize approved route of transport.

- 3. Clean-up
 - a. Clean route of transport to provide cleaning of any spilled material.
 - b. Wash out equipment truck and other equipment in designated wash area.

- 4. Accidental discharge into storm system
 - a. To report call 911 Emergency to report a hazardous material spill and call Salt Lake City, Public Utilities Department at (801-483-6700).

**GOLF COURSE MAINTENANCE STANDARDS
SALT LAKE CITY GOLF DIVISION**

Putting Greens

Mowing Height:

1/8 - 5/16 inch

Mowing Frequency:

Daily during periods of active shoot growth; as needed to smooth greens during periods of slower growth.

Mowing Pattern:

Alter directions at each mowing.

Clippings:

Remove, except after recent fertilization or fungicide applications.

Grain Control:

Use light vertical cutting and brush attachment as needed to prevent excessive grain.

Fertilization:

Nitrogen: Apply 0.3 to 0.7 lb.N/1,000 sq. ft. of slow release carrier at intervals of 20 to 30 days during growing season. On established greens of cool-season grass varieties, total annual nitrogen application should rarely exceed 4-6 lbs. N/1,000 ft² per year.

Phosphorus: Apply at rate based on soil tests.

Potassium: Apply 3 to 5 lbs K₂O/1,000 sq. ft. per year or as based on soil tests.

Iron: Apply 1 to 2 oz. Iron carrier/1,000 sq. ft. as needed.

Micronutrients: Apply at rates based on soil tests.

Irrigation:

Insure adequate but not excessive amounts; moisten to full root zone with each irrigation. Midday syringing may be may be needed to prevent turfgrass wilt.

Top-Dressing:

Apply sand of suitable particle size (#18 screen; #16 Tyler) in light, frequent program. Apply 0.1 cu. Yd./1,000 sq. ft. every 3 to 4 weeks during periods of active growth. Use a higher application rate as a follow-up to coring cultivation.

Cultivation:

Core cultivate a minimum of once yearly.

Spiking:

As needed to correct surface compaction or impermeability.

Weed Control:

Control broadleaf weeds as necessary.

Disease Control:

Practice on a preventative basis or give corrective treatment as injury symptoms appear.

Insect Control:

Apply appropriate insecticide as needed.

Cup Placement:

Change cup placement daily. Use USGA recommendations as guide to proper location and placement.

Flagstick:

A flagstick as least 7 ft. in length, with an attractive flag attached, should be in place at every hole.

Greens Collars and Aprons

Mowing Height:

1/2 to 3/4 inch; intermediate in height between that of fairway and putting green.

Mowing Frequency:

3 times weekly during periods of active shoot growth; 1 - 2 times weekly during periods of slower growth.

Cultural System:

Collar should receive the same cultural system as employed on the green. Core cultivation may be needed more frequently as traffic intensity dictates.

Sod replacement:

Sand deposition from nearby bunkers and intense traffic may require sod replacement on the collars at five- to ten-year intervals.

Tees

Mowing Height:

1/2 to 3/4 inch.

Mowing frequency:

3 times weekly during periods of active shoot growth; 1 - 2 times weekly during periods of slower growth.

Mowing Pattern:

Alter direction at each mowing.

Fertilization:

Nitrogen: Apply 0.25 to 0.75 lb. N/1,000 sq. ft. at intervals of 15 to 30 days during growing season. On established tees of cool-season grass varieties, total annual nitrogen application should rarely exceed 4-6 lbs. N/1,000 ft² per year.

Phosphorus: Application rate based on soil test. Apply as part of complete analysis fertilizer.

Potassium: Apply 4 to 5 lbs. K₂O/1,000 sq. ft. per year, split into 4 to 6 applications over growing season.

Iron: Apply when visual deficiency symptoms appear.

Micronutrients: Apply if specific nutrient deficiency is diagnosed.

Irrigation:

Each irrigation should moisten to full root zone; use adequate but not excessive amounts.

Tee Markers:

Move daily.

Top-Dressing:

Apply 2 to 4 times per year as needed for smoothing. Apply at rate of 0.25 to 0.50 cu. Yd./1,000 sq. ft.

Divot Mark Repair:

Place soil-seed mixture in divot marks on weekly or daily basis.

Cultivation:

Core or slice as needed to correct developing soil compaction problem.

Overseeding:

Apply Kentucky bluegrass - fine bladed perennial rye mixture when cultivating and top-dressing.

Weed Control:

Control broadleaf weeds as necessary.

Insect Control:

Apply appropriate insecticide as needed.

Tee Signs:

Paint or stain as needed to maintain attractive appearance. Remove during winter months.

Benches:

Move frequently to prevent traffic wear patterns.

Trash Receptacles:

Empty before overfull and as necessary to prevent objectionable odor.

Ball Washer:

Clean and replace liquid and towels three times weekly. Maintain as necessary to retain proper mechanical functioning. Remove when freezing weather dictates.

Fairways

Mowing Height:

1/2 to 1.0 Inch

Mowing Frequency:

Three times weekly during active shoot growth. One or two times weekly during periods of slower growth.

Mowing Pattern:

Cross Mowing

Clippings

Return

Fertilization:

Nitrogen: Apply 3/4 to 1 lb. N./1,000 sq. ft. in late May - mid-June; Apply 1 lb. N./1,000 sq. ft. in late August - September; Apply 1 - 2 lbs. N./1,000 sq. ft. in late October - early November.

Phosphorus: Apply at rate based on soil test, usually once per year.

Potassium: Apply at Nitrogen-to-Potassium ratio approaching 1:1.

Iron: Apply when visual deficiency symptoms appear, apply 1 to 2 oz. Of iron carrier per 1,000 sq. ft.

Micronutrients: Apply if specific nutrient deficiency diagnosed.

Irrigation:

Moisten to full depth of root zone, avoid over watering.

Cultivation:

Core/slice as needed to correct developing soil compaction problem.

Weed Control:

Apply herbicide as needed to control developing weed problem.

Insect Control:

Apply only as needed.

Disease Control:

Apply only as needed.

Leaf & Debris Removal:

Remove debris as necessary to keep free of all litter and to maintain orderly and attractive appearance.

Drainage:

Post-establishment drainage installations as necessary to reduce standing water and soggy areas where possible.

Yard Markers:

Establish distinctive yard markers at the 150 yard mark on all par 4's and 5's. Stain or paint as necessary. Establish multicolored yardage in center of fairways to delineate 100, 150, 200, and 250 yardages as applicable.

Hazard Markings:

Define and mark hazards to conform with the Rules of Golf.

Roughs

Mowing Height:

1.5 to 2.5 inch. Maintain distinct visible definition in height between fairway and rough.

Mowing Frequency:

1 to 2 times weekly during active shoot growth. Frequency should be adjusted so that no more than 40 percent of the leaf area is removed at any one mowing.

Mowing Pattern:

Mow in a random direction.

Clippings:

Return.

Fertilization:

Nitrogen: Apply up to 2 lbs N./1000 ft² per year

Phosphorus: Apply up to 1 lb. P₂O₅/1000 ft² per year based on soil tests

Potassium: Apply up to 2 lbs. K₂O/1000 ft² per year

Iron: Apply 1 to 2 oz. Iron carrier/1000 ft² per year if indicated by visual symptoms.

Irrigation:

Moisten to full root zone; use adequate but not excessive amount.

Weed Control:

Apply broadleaf herbicide only as needed to control developing weed problem. Early fall application offers best control.

Leaf & Debris Removal:

Remove debris as necessary.

Trimming:

Mechanical and chemical trimming around base of trees, posts, etc. as necessary to maintain attractive appearance. Keep fence lines clear of weeds, leaves, litter, etc.

Hazard Markings:

Define and mark hazards to conform with the Rules of Golf.

Bunkers

Raking:

Mechanical rake should be used 3 to 7 times weekly to maintain a semi-soft, dry condition of desired smoothness. Supplemental hand raking is required to maintain properly-prepared edge.

Edging:

Mechanical and chemical edging should be performed on a regular basis to maintain a well-defined edge.

Mowing:

During growing season hand mow undulating and steep grassy areas around bunkers at weekly or bi-weekly intervals.

Sand Replacement:

Maintain at least 4-inch depth of sand in the base of bunkers and no more than 2 inches on the slopes. Sand depth in fairway bunkers is typically more shallow than greenside bunkers to provide firmer lie for distant shots.

Weed Control:

Bunkers must be kept free of weeds at all times.

Stones, Leaves & Debris:

Remove as necessary.

Irrigation and Drainage Systems

Operational Check:

A Complete visual and operational check of the irrigation system should be made weekly.

Scheduling Adjustment:

Automatic irrigation timing schedules must be adjusted with changes in weather and diurnal cycles to apply proper amounts of water.

Maintenance:

Automatic controllers, control valves, sprinkler heads, electrical lines, screens, water lines, and fittings must be maintained to provide proper operation.

Parts Inventory:

An adequate inventory of spare parts needs to be stocked to facilitate quick repairs.

Winterizing:

To prevent freeze damage, the irrigation system must be properly drained and winterized.

Electrical Irrigation Pumps

Service as necessary to ensure continuous and reliable operation.

Fountains

Service as required to provide potable water at all times when non-freezing weather prevails.

Electrical Drainage Pumps:

Lubricate bearings weekly. Maintain electrical system in good operating order. Manually control valves to maintain lake levels. Ensure drainage lines function properly.

Adjunct Areas of Golf Course

Clubhouse:

Clubhouse surrounds should be clean of all litter, landscaped properly and maintained in attractive order.

Maintenance Compound:

Should be kept clean, neat and organized.

Entrance Roads & Parking Lots:

Should be free of litter and debris.

Water Fountains:

Inspect daily for water leaks. Clean regularly to maintain a high sanitary standard.

Security Fences:

Maintain state of repair to ensure security is intact. Close and secure gates during off hours. Keep free of debris and litter.

Ponds & Lakes:

Mechanical or chemical edging should be performed as needed. Apply chemical and mechanical controls to eliminate algae and aquatic weeds.

Stream Banks & Access Roads:

Mow and trim at regular intervals to control weeds and to preserve aesthetics.

Cart Paths:

Trim around edges as needed. Repair worn turf around paths with sod or seed as needed. Schedule repair of cart paths when necessary.

Stormwater Pollution Prevention Plan

for:

Salt Lake City Public Services Maintenance Facility

1990, 1995, 2010 West 500 South
Salt Lake City, Utah 84101

SWPPP Contact(s):

Salt Lake City Fleet Management

1990 West 500 South
Salt Lake City, Utah 84104
Phone 801-535-6904
Fax 801-535-6906

SWPPP Preparation Date:

10/13/2010





| | |
|----|--|
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| 2 | Potential Pollutant Sources |
| 3 | Storm Water Control Measures |
| 4 | Schedules and Procedures for Monitoring |
| 5 | Inspections |
| 6 | Eligibility Support |
| 7 | SWPPP Certification |
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SECTION 1

SECTION 1: FACILITY DESCRIPTION AND CONTACT INFORMATION

1.1 Facility Information

Facility Information

Name of Facility: Public Services Maintenance Facility

Street: 1990 (Fleet), 1995 (Fuel Island), 2010 (Streets), West 500 South

City: Salt Lake City State: Utah ZIP Code: 84104

County or Similar Subdivision: Salt Lake County

Permit Tracking Number: _____ (if covered under a previous permit)

Latitude/Longitude (Use **one** of three possible formats, and specify method)

Latitude:

Longitude:

1. 40° 45' 53" N (degrees, minutes, seconds)

1. 111° 56' 53" W (degrees, minutes, seconds)

2. ° ' " N (degrees, minutes, decimal)

2. ° ' " W (degrees, minutes, decimal)

3. ° N (decimal)

3. ° W (decimal)

Method for determining latitude/longitude (check one):

USGS topographic map (specify scale: _____)

EPA Web site

GPS

Other (please specify): Google Earth

Is the facility located in Indian Country? Yes No

If yes, name of Reservation, or if not part of a Reservation, indicate "not applicable." Not Applicable

Is this facility considered a Federal Facility? Yes No

Estimated area of industrial activity at site exposed to stormwater. 15.25 (acres)

Discharge Information

Does this facility discharge stormwater into an MS4? Yes No

If yes, name of MS4 operator: Salt Lake City

Name(s) of water(s) that receive stormwater from your facility Surplus Canal

Are any of your discharges directly into any segment of an "impaired" water? Yes No

If Yes, identify name of the impaired water (and segment, if applicable): _____

Identify the pollutant(s) causing the impairment: _____

For pollutants identified, which do you have reason to believe will be present in your discharge? _____



There may be minimal organic debris from the surrounding landscaped areas.

For pollutants identified, which have a completed TMDL? Ammonia, Chlorine Residual, Dissolved Oxygen _____

Do you discharge into a receiving water designated as a Tier 2 (or Tier 2.5) water? Yes No

Are any of your stormwater discharges subject to effluent guidelines? Yes No

If Yes, which guidelines apply? _____

Primary SIC Code or 2-letter Activity Code: 829

(refer to Appendix D of the 2008 MSGP)

Identify your applicable sector and subsector: Educational Services: Schools and Educational Services, Not Elsewhere Classified

1.2 Contact Information/Responsible Parties

Facility Operator (s)

Salt Lake City Fleet Management
1990 West 500 South
Salt Lake City, Utah 84104
Phone: 801-535-6906
vicky.holmes@slcgov.com
Fax: 801-535-6906

Facility Owner (s):

Salt Lake City Corportaion
451 South State Street
Salt Lake City, Utah 84111
www.slcgov.com

SWPPP Contact:

Name: Express Environmental Services, Inc.
Telephone number: 435-833-0150
Email address: JennieG@expressenvironmentalservices.com
Fax number: 435-833-0149



1.3 Stormwater Pollution Prevention Team

| Staff Names | Individual Responsibilities |
|-------------|--------------------------------------|
| Nate Stohel | SWPPP Inspections, employee training |
| | |
| | |

1.4 Activities at the Facility

The Public Services Maintenance Facility is a LEED Silver facility. With its state of the art heating and cooling, and its solar assisted water heating systems, the facility is built from the ground up to be environmentally friendly.

The complex houses the cities Centralized Fleet Management Division, the Streets Division and the Sanitation Division. The Centralized Fleet Management Division handles repair of city vehicles and equipment. The Streets Division maintains streets and roads. The Sanitation Division is responsible for trash pickup as well as public recycling programs.

The parking lot storm water runoff is diverted through a series of oil separation devices and bioswales ensuring that pollutants are removed by the time the water empties out into the surplus canal.

1.5 General Location Map

A copy of the general location map for this facility is in Attachment A.



1.6 Site Map

A copy of the site map for this facility is in Attachment B.



SECTION 2

SECTION 2: POTENTIAL POLLUTANT SOURCES

2.1 Industrial Activity and Associated Pollutants

| Industrial Activity | Associated Pollutants |
|---------------------------------------|---|
| Vehicle and truck parking at P.S.M.F. | Battery acid, Gasoline, Diesel, Motor Oils, various petroleum products, trace pollutants associated with a parking facility , slurry sealant for road repair. |
| | |
| | |
| | |
| | |
| | |
| | |

2.2 Spills and Leaks

Areas of Site Where Potential Spills/Leaks Could Occur

| Location | Outfalls |
|---|----------------------------|
| Parking Area | Inlets associated with MS4 |
| Surrounding Landscaped Areas | None |
| Refuse Site | None |
| Any other areas capable of contaminating storm water runoff | Inlets associated with MS4 |

Description of Past Spills/Leaks

| Date | Description | Outfalls |
|------|-------------|----------|
| | | |
| | | |
| | | |



2.3 Non-Stormwater Discharges Documentation

- Date of evaluation: October 2010
- Description of the evaluation criteria used: Providing water quality is not affected, the following non-storm water discharges will be permitted: fire hydrant flushing; waters used to wash vehicles where detergents are not used; water used to control dusts; potable water sources including waterline flushing; routine external building wash down which does not use detergents; pavement wash waters where spills or leaks of toxic or hazardous (including oil and fuels) materials have not occurred (unless all spilled material has been removed) and where detergents are not used; uncontaminated air conditioning condensate or compressor condensate; uncontaminated groundwater or springs; and foundation or footing drains where flows are not contaminated with process materials such as solvents; Landscape and other irrigation drainage. The facility site may have other permitted discharges at the site if permits for those specific discharges are in place.
- List of the outfalls or onsite drainage points that were directly observed during the evaluation: MS4 inlets were observed to be in working order. Indoor plumbing and waste water drainage systems also observed to be in working order.
- Different types of non-stormwater discharge(s) and source locations: No unpermitted discharges were noted at the time of this report's creation.
- Action(s) taken, such as a list of control measures used to eliminate unauthorized discharge(s), if any were identified. Not applicable.

2.4 Salt Storage

Location of salt storage for the use of deicing the parking areas and associated walkways was not available at the time of this report's creation.

2.5 Sampling Data Summary

There is no sampling data available.



SECTION 3

SECTION 3: STORMWATER CONTROL MEASURES

3.1 *Minimize Exposure*

The structural controls to be utilized on site are the inlets. These inlets will capture the majority of storm water runoff. The surrounding landscaped areas will absorb storm water and reduce the chances of runoff. Areas prone to soil erosion shall be protected, and the soil kept out of the storm water discharge. This may include seeding, reconstructing slopes, diversion of runoff and paving.

3.2 *Good Housekeeping*

Waste dumpsters will be picked up on a weekly basis. Regular cleaning of debris from the parking areas and surrounding landscaped areas will be enforced. Quarterly cleaning of inlets on the facility site will reduce sediment and debris contamination of MS4 system.

3.3 *Maintenance*

Preventive Maintenance involves the regular inspection, testing, and cleaning of facility equipment and operational systems. These inspections will help to uncover conditions that might lead to a release of materials. Thus, allowing for maintenance to prevent such a release. The following equipment/activities will be included in the preventive maintenance program:

Mechanical equipment – preventative maintenance – TBD3.4 Spill Prevention and Response

Hazardous Substance Management: All hazardous substances, including chemical wastes, are to be managed in a way that prevents release. The following general requirements are to be followed. They include:

- *Container Management:*
 - All hazardous substance containers must be in good condition and compatible with the materials stored within.



- All hazardous substance containers must be accessible and spacing between containers must provide sufficient access to perform periodic inspections and respond to releases.
 - Empty hazardous substance containers (drums) must have all markers and labels removed and the container marked with the word 'empty'.
 - Any spills on the exterior of the container must be cleaned immediately.
 - Flammable materials stored or dispensed from drums or totes must be grounded to prevent static spark.
 - Do not overfill waste drums. 4" of headspace must remain to allow for expansion
 - [Other site-specific practices].
- *Good Housekeeping:*
 - All hazardous substances must be stored inside buildings or under cover;
 - Store hazardous substances not used daily in cabinets, or in designated areas;
 - All chemicals that are transferred from larger to smaller containers must be transferred by use of a funnel or spigot.
 - All hazardous substance containers should be closed while not in use;
 - Use drip pans or other collection devices to contain drips or leaks from dispensing containers or equipment;
 - Implement preventative maintenance activities to reduce the potential for release from equipment;
 - Immediately clean up and properly manage all small spills or leaks;
 - Periodically inspect equipment and hazardous substance storage areas to ensure leaks or spills are not occurring;
 - Use signage to identify hazardous substance storage or waste collection areas;
 - Keep all work areas and hazardous substance storage areas clean and in good general condition.
 - [Other site-specific practices]
 - *Secondary containment:*
 - Store all bulk chemicals (≥ 55 gallons) within appropriate secondary containment, or any sized chemical if there is a potential for release to the environment.
 - Secondary containment should be checked periodically, and any spills identified in secondary containment must be immediately cleaned up and removed.
 - [Other site-specific practices]
 - *Marking/labeling:*
 - Ensure all hazardous substances, including chemical wastes, are properly marked and labeled in accordance with all federal, state and local regulations.
 - Ensure that hazardous substances transferred to small containers are marked with the chemicals name (example- "Isopropyl Alcohol") and hazard (example- "Flammable").
 - [Other site-specific practices]

Employee Training: All employees must receive periodic training on the proper handling of hazardous substances; spill prevention practices, and emergency response procedures. Training must include a review of the spill prevention and emergency response plan, and a review of location and use of



emergency response equipment. Training can be recorded through safety committee meetings, staff training logs, or other equivalent record keeping.

Hazardous Substance Inventory: An inventory must be maintained for all hazardous substance stored in quantity (<55 gallons), and/or list of locations where non-bulk hazardous substances are stored (flammable lockers- shop floor).

Spill Response Equipment: Spill response equipment must be maintained and located in areas where spills are likely to occur. Spill kits should provide adequate response capabilities to manage any anticipated spill or release. The following general requirements are to be followed: They include:

- Stock spill clean up kits that are compatible with the hazardous substances stored on site;
- Locate spill kits in areas where spills are likely to occur (loading docks, chemical storage areas, locations where hazardous substance are being transferred);
- Spill kits should be sized to managing an anticipated release (spill equal to the largest container);
- Emergency response equipment should be inspected periodically to ensure that the spill kit is complete.

Emergency Response Plan:

The Emergency Response Plan is a facility specific plan for dealing with emergencies and shall be implemented immediately whenever there is a fire, explosion, or release of a hazardous substance that threatens human health or the environment. The emergency response plan shall be reviewed and immediately amended whenever:

- The plan fails in an emergency;
- The facility changes in its design, construction, operation, maintenance, or other circumstances in a way that increases the potential for fire, explosions, or release of a hazardous substance;
- The list of emergency contacts change; or
- The list of emergency equipment changes.

Response actions in the event of a spill or release:

In the event of a hazardous substance spill or release, immediately take the following measures to keep the spill from entering sewer or storm drains, spreading off-site, or affecting human health. In all cases caution and common sense must be maintained with the primary goal being to prevent and/or limit personal injury.

Stop, contain, and clean up the chemical spill if:

- The spilled chemical and its hazardous properties have been identified;
- The spill is small and easily contained;
- Responder is aware of the chemicals' hazardous properties.

If a spill or release cannot be controlled or injuries have occurred due to the release the following procedures should be implemented:

- Summon help or alert others of the release;



- Evacuate immediate area, and provide care to the injured- Call 911;
- If potential fire or explosion hazards exist initiate evacuation procedures- Call 911;
- Respond defensively to any uncontrolled spills:
 - Use appropriate personal protective equipment when responding to any spill;
 - Attempt to shut off the source of the release (if safe to do so);
 - Eliminate sources of ignition (if safe to do so);
 - Protect drains by use of adsorbent, booms or drain covers (if safe to do so).
- Notify onsite emergency contact(s);
- Notify other trained staff and/or emergency response contractor to assist with the spill response and cleanup activities;
- Coordinate response activities with local emergency personnel (fire department);
- Be prepared to provide MSDS information to fire department, EMT, hospital or physician;
- Notify appropriate agency if a release has entered the environment. Refer to Notification and Reporting section for reporting thresholds.

Evacuation Procedures:

In the event of a hazardous substance release that has the potential for fire, explosion or other human health hazards the following procedures will be implemented:

- Facility staff will be notified of evacuation by one or more of the following method(s): Verbal, Intercom, Portable Radio, Alarm, Other.
- Notification to emergency services will be performed- Call 911.
- Facility staff will follow predetermined evacuation routes and assemble at designated areas. Evacuation maps must be displayed throughout the facility.
- Individuals responsible for coordinating evacuations must confirm if the business has been completely evacuated.
- Facility staff will be made familiar with evacuation procedures during new employee orientation, and annual trainings thereafter.
- Designated emergency response contacts will coordinate all activities with outside emergency personnel.

Spill Cleanup and Disposal:

In the event of a hazardous substance release spill cleanup materials are to be properly characterized to determine if it designates as a Utah State Dangerous Waste. The designated onsite emergency contact, with the assistance of waste disposal vendor and other resources will determine the wastes status prior to disposal.

Reporting a Release:

If a hazardous substance spill has been released to soil, surface water, drains or air the following notifications (within 24-hours) must be performed:



- **Fire Department** (any release that poses an immediate threat to human health, property or the environment):
- **Department of Ecology** (any release; notification performed within 24-hours):
- **Salt Lake County Health Department** (any release):
- **Utah Department of Water Quality** (any release):
- **National Response Center** (release of oil or fuel to surface water, or a release of a chemical with an established Reportable Quantity-RQ)

When reporting a release prepare to provide the following information (use spill report form):

- Your name and telephone number from where you are calling;
- Exact address of the release or threatened release;
- Date, time, cause and type of incident (fire, air release, spill, etc.)
- Material and quantity of the release, to the extent known;
- Current condition of the facility;
- Extent of injuries, if any; and
- Possible hazards to the public health and/or environment outside of the facility.

3.5 Erosion and Sediment Controls

The controls implemented at the facility used to reduce or eliminate erosion will be vegetated areas, paving, inlets, downspouts on rooflines with collection areas and established turf on slopes. The following additional controls may also be implemented at the facility: sumps, oil/water separators, sand filters, vegetative filters, basins [collection, retention, detention], reduce, reuse and recycle materials, etc.

3.6 Management of Runoff

Storm water will be diverted to the facility site inlets on the paved areas.

3.7 Salt Storage Piles or Piles Containing Salt

Not Applicable.

3.8 MSGP Sector-Specific Non-Numeric Effluent Limits

Not Applicable.



3.9 Employee Training

SWPPP training is required for all employees who work in areas where facility activities or material handling activities are exposed to stormwater. They must be familiar with the contents of the Facility SWPPP. Employees also need to be familiar with the control measures implemented to achieve compliance with discharge requirements. Employees need to be trained in spill response and notification procedures. They will also be familiar with the proper procedures of maintenance, monitoring, inspections, planning, reporting, and documentation of the facility SWPPP implementation.. A yearly training meeting will held on at the facility site.

3.10 Non-Stormwater Discharges

All storm water outfalls shall be evaluated for non-storm water contributions to the storm drainage system for the duration of this permit. Any monitoring shall be representative of non-storm water discharges from the facility. Any unauthorized storm water discharges must be eliminated, or covered under another UPDES permit. The following is a list of non-storm water discharges or flows that are not considered illicit (unless identified as a significant source of contamination).

water line flushing, landscape irrigation, diverted stream flows, uncontaminated groundwater infiltration, uncontaminated pumped groundwater, discharges from potable water sources, foundation drains, air conditioning condensation, irrigation water, lawn watering, individual residential car washing, flows from riparian habitats and wetlands, de-chlorinated swimming pool water, street wash water, and fire fighting.

- 1) Evaluations shall take place during dry periods, and may include either end of pipe screening or detailed testing of the storm sewer collection system.
- 2) Either of the following monitoring procedures is acceptable:
 - a) A detailed testing of the storm sewer collection system may be performed. Acceptable testing methods include dye testing, smoke testing, or video camera observation. A re-test shall be done every 5 years or a lesser period as deemed necessary.
 - b) End of pipe screening shall consist of visual observations made at least twice per year at each outfall of the storm sewer collection system. Instances of dry weather flow, stains, sludge, color, odor, or other indications of a non-storm water discharge shall be recorded;

3.11 Waste, Garbage and Floatable Debris



Good housekeeping and routine debris collection around the site facility will be performed at least weekly and will greatly reduce the amount of garbage and debris entering the MS4 inlets.

3.12 *Dust Generation and Vehicle Tracking of Industrial Materials*

Not applicable. The facility site will be hardscaped and landscaped, no dust will be generated and no raw materials will be tracked in or out of the facility.



SECTION 4

SECTION 4: SCHEDULES AND PROCEDURES FOR MONITORING

- 1. Sample Location(s).** Describe where samples will be collected, including any determination that two or more outfalls are substantially identical.

The Monitoring locations where samples may be collected are the inlets surrounding the facility. These inlets are substantially identical in that they are located in a paved area with local automotive traffic.

- 2. Pollutant Parameters to be Sampled.** Include a list of the pollutant parameters that will be sampled and the frequency of sampling for each parameter.

The samples will be tested for chlorination, petroleum products and soluble oxygen. Sampling should take place on at least a bi-annual basis.

- 3. Monitoring Schedules.** Include the schedule you will follow for monitoring your stormwater discharge, including where applicable any alternate monitoring periods to be used for facilities in climates with irregular stormwater runoff (2008 MSGP, Part 6.1.6).

The stormwater discharge will be monitored each year in the spring and in the fall during the months of heaviest rainfall activity.

- 4. Numeric Limitations.** List here any pollutant parameters subject to numeric limits (effluent limitations guidelines), and which outfalls are subject to such limits.

Not Applicable.

- 5. Procedures.** Describe procedures you will follow for collecting samples, including responsible staff who will be involved, logistics for taking and handling samples, laboratory to be used, etc.

The parameters for the procedures of collecting samples have not been determined at the time of the report's creation.

| Date | Location | Parameter | Results | Initials | Additional Information |
|------|----------|-----------|---------|----------|------------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Inactive and Unstaffed sites exception

Not Applicable.



Substantially identical outfall exception

The following information listed will substantiate the claim that these outfalls are substantially identical:

- Location of each of the substantially identical outfalls: South Parking Lot
 - Description of the general industrial activities conducted in the drainage area of each outfall: Facility parking.
 - Description of the control measures implemented in the drainage area of each outfall: Regular cleaning of debris from the parking areas and surrounding landscaped areas will be enforced. Quarterly cleaning of inlets on the facility site will reduce sediment and debris contamination of MS4 system
 - Description of the exposed materials located in the drainage area of each outfall that are likely to be significant contributors of pollutants to stormwater discharges: Not applicable.
 - An estimate of the runoff coefficient of the drainage areas (low=under 40%; medium=40 to 65%; high =above 65%): 72%
6. Why the outfalls are expected to discharge substantially identical effluents: These inlets are substantially identical in that they are located in a paved area with local automotive traffic.



SECTION 5

Checklist for SWPPP Inspection

date _____

PSMF Yard

| | |
|--|--|
| Check car parking for debris | |
| Check car parking for oil residue | |
| Check car parking for fuel residue | |
| Check truck parking for debris | |
| Check truck parking for oil residue | |
| Check truck parking for fuel residue | |
| Check driving areas for oil trails | |
| Check driving areas for dirt trails | |
| Check garbage cans for closed lids and leakage | |
| Check bioswales for debris and obstructions | |

PSMF Fueling Island – Car / Truck Wash

| | |
|--|--|
| Check car wash area for cleanliness and debris | |
| Check truck wash area for dirt, cleanliness debris | |
| Check fuel tank area for debris, fuel leakage | |
| Check fuel fill area for fuel leakage | |
| Check conditions of spill kits at fuel island | |
| Check employee parking for debris | |
| Check employee parking for oil residue | |
| Check employee parking for fuel residue | |
| Check garbage cans for closed lids and leakage | |

SECTION 6

SECTION 6: DOCUMENTATION TO SUPPORT ELIGIBILITY CONSIDERATIONS UNDER OTHER FEDERAL LAWS

6.1 *Documentation Regarding Endangered Species.*

Several Threatened and Endangered species are found within Salt Lake County. None have been noted at the facility location at the time of this report.

A list of these species is found in Attachment D.

6.2 *Documentation Regarding Historic Properties*

This site is not documented as a Historical Property.

A list of these properties is found in Attachment E.

6.3 Documentation Regarding NEPA Review Not applicable.



SECTION 7

SECTION 7: SWPPP CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Jennie Gallegos Title: Erosion Control Analyst

Signature:  Date: October 13, 2010



SECTION 8

SECTION 8: SWPPP MODIFICATIONS

Instructions (see 2008 MSGP Part 5.2):

- Your SWPPP is a "living" document and is required to be modified and updated, as necessary, in response to corrective actions. See Part 3.4 of the 2008 MSGP.
 - If you need to modify the SWPPP in response to a corrective action required by Part 3.1 of the 2008 MSGP, then the certification statement in section 7 of this SWPPP template must be re-signed in accordance with 2008 MSGP Appendix B, Subsection 11.A or 11.B.
 - For any other SWPPP modification, you should keep a log with a description of the modification, the name of the person making it, and the date and signature of that person. See 2008 MSGP Appendix B, Subsection 11.C.


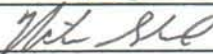


Revision Schedule

This Storm Water Pollution Prevention Plan (SWPPP) should be revised and updated to address changes in site conditions, new or revised government regulations, and additional on-site storm water pollution controls.

All revisions to the SWPPP must be documented on the SWPPP Revision Documentation Form, which should include the information shown below. The authorized facility representative who approves the SWPPP should be an individual at or near the top of the facility's management organization, such as the president, vice president, construction manager, site supervisor, or environmental manager. The signature of this representative attests that the SWPPP revision information is true and accurate. Previous authors and facility representatives are not responsible for the revisions.

SWPPP Revision Documentation Form

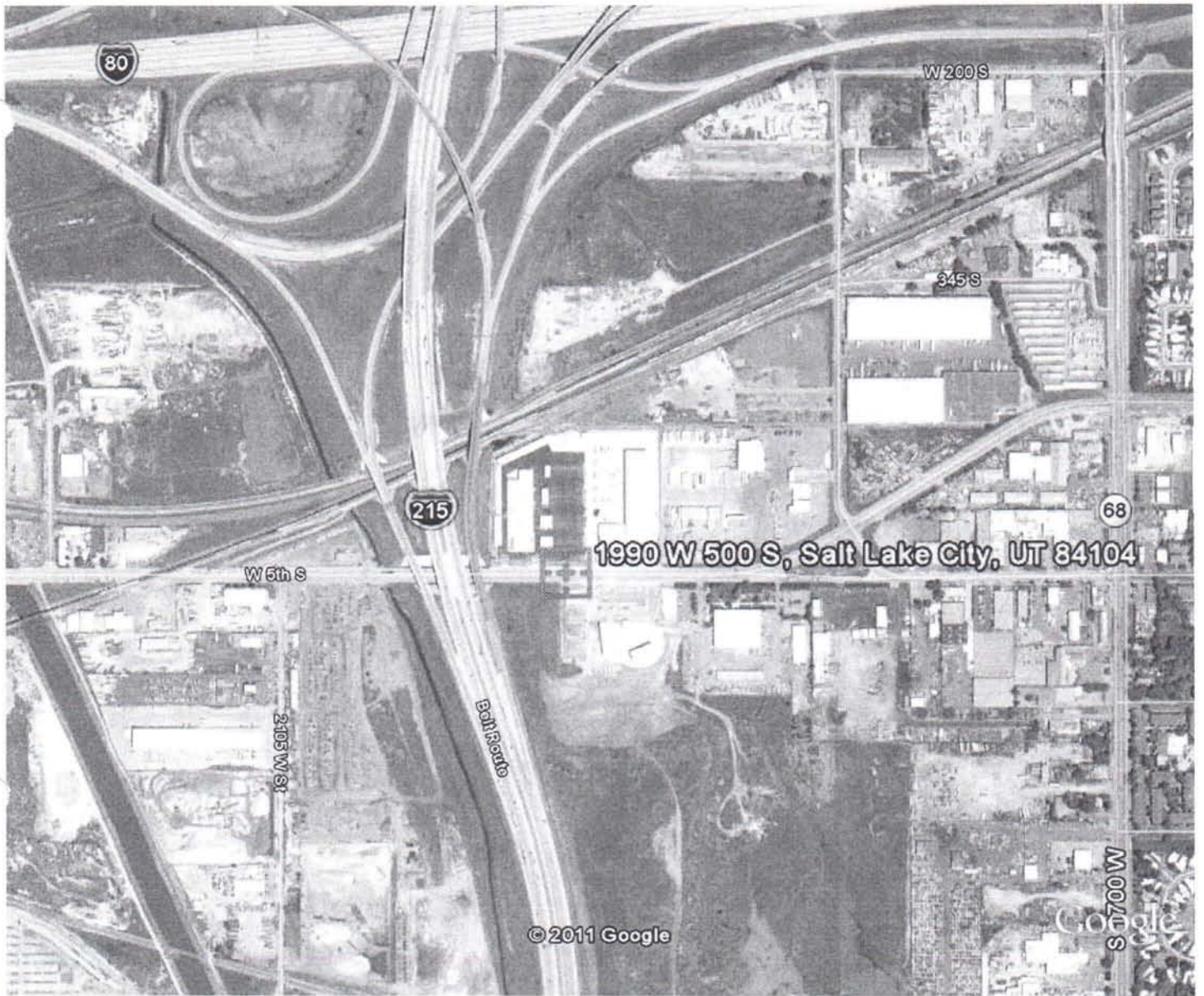
| Number | Date | Author | Company Representative Signature |
|--------|------------|-----------------|---|
| 0 | 10/13/2010 | Jennie Gallegos |  |
| 1 | 09/08/2011 | Nate Stohel |  |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | | |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |



SECTION 9

Attachment A – General Location Map





80

W 200 S

345 S

215

68

1990 W 500 S, Salt Lake City, UT 84104

W 5th S

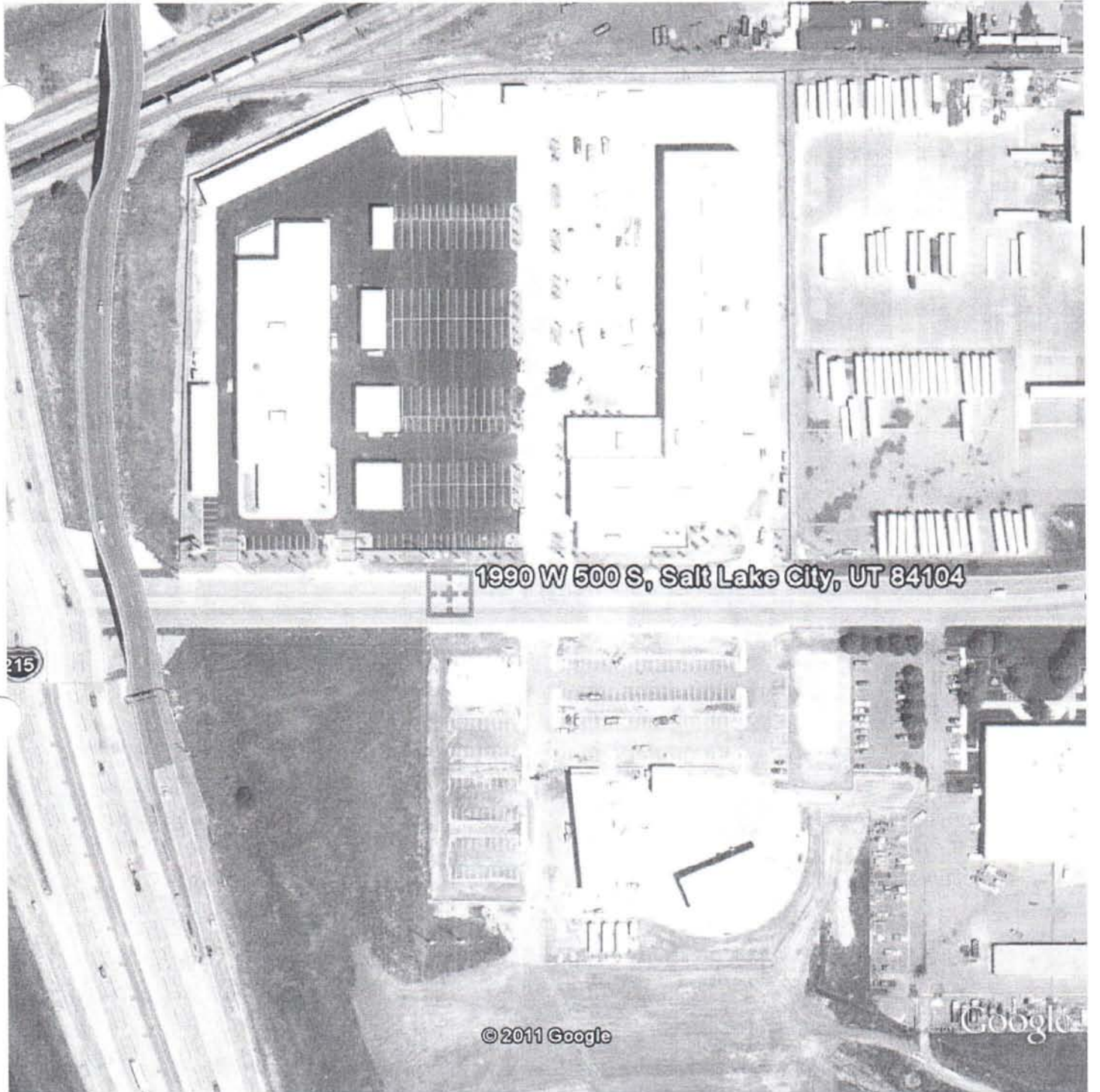
2105 W St

Ball Field

W 007th S

© 2011 Google

Google



1990 W 500 S, Salt Lake City, UT 84104

© 2011 Google

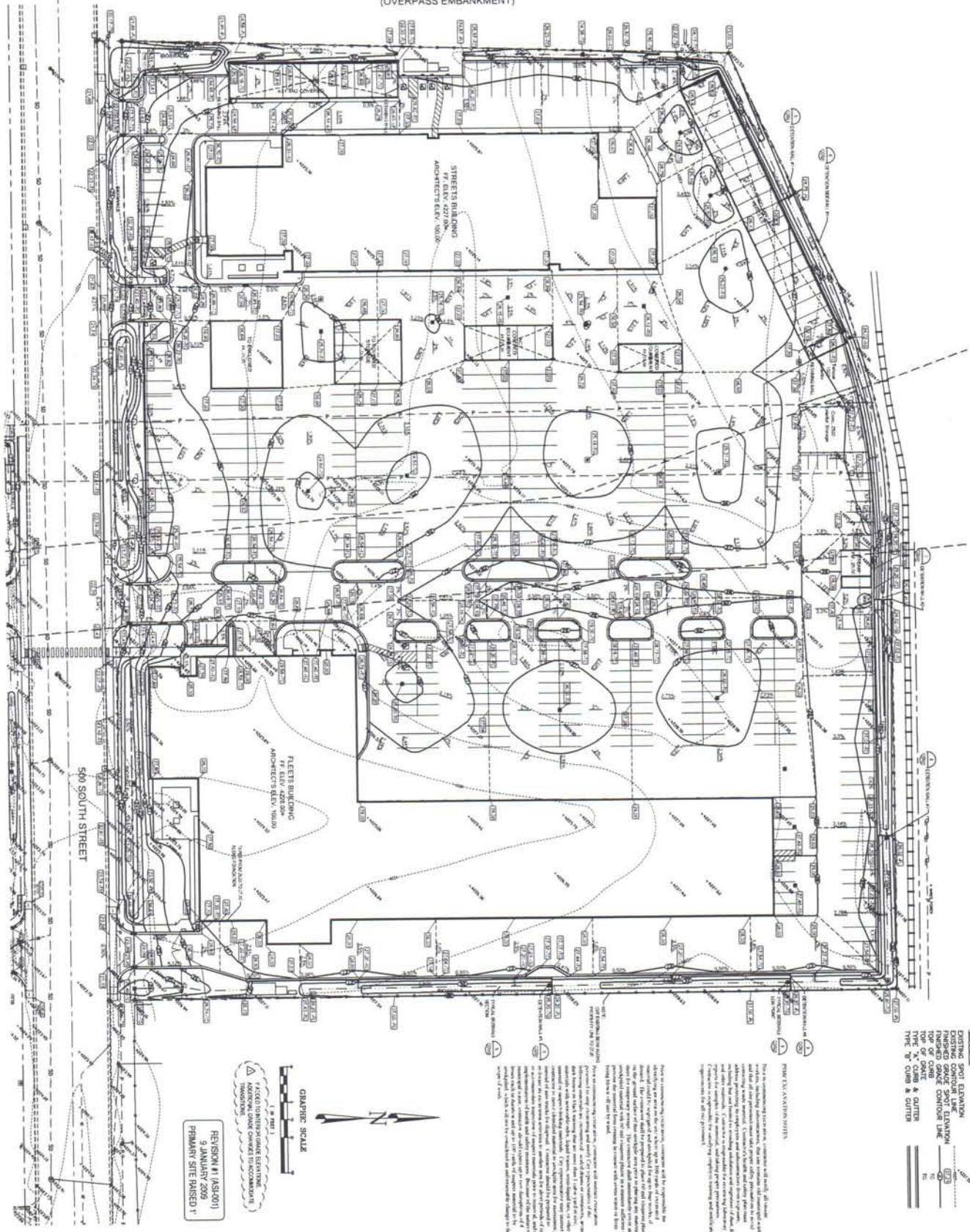
Google

SECTION 10

Attachment B – Site Map



I-215
(OVERPASS EMBANKMENT)



LEGEND

EXISTING SPORT ESTABLISHMENT
 EXISTING CONDUIT LINE (UNFINISHED)
 FINISHED DRIVE SWIFT ELEVATION
 TOP OF CURB
 TYPE "B" CURB & CUTTER

GRAPHIC SCALE
 1" = 100'

REVISION #1 (ASH/01)
 9 JANUARY 2009
 PRIMARY SITE RAISED 1'

| | | | |
|----------------------|----------------|--|--|
| | | PUBLIC SERVICES MAINTENANCE FACILITY | 1909 HWY. 500 SOUTH SUITE 1000, DALLAS, TEXAS 75243-4500 |
| | | CIVIL AND MISC. STRUCTURES | 1909 HWY. 500 SOUTH SUITE 1000, DALLAS, TEXAS 75243-4500 |
| PROJECT NO. CG101 | SHEET NO. 1 | DATE 1/9/09 | DRAWN BY J. SMITH |

SECTION 12

Attachment D – Endangered Species



**Utah's Federally (US F&WS) Listed
Threatened (T), Endangered (E), and Candidate (C) Plant Species**

| <u>Common Name</u> | <u>Scientific Name</u> | <u>Status</u> | <u>County of Occurrence</u> |
|-----------------------------|---|---------------|---|
| Monocot Plants: | | | |
| | Family Cyperaceae | | |
| Navajo Sedge | <i>Carex specuicola</i> | T | San Juan & Kane. |
| | Family Orchidaceae | | |
| Ute Ladies'-tresses | <i>Spiranthes diluvialis</i> | T | Daggett, Duchesne, Garfield, Tooele, Uintah, Utah, Wasatch, & Wayne. Possibly Juab. Formerly Salt Lake & Weber. |
| Dicot Plants: | | | |
| | Family Apocynaceae | | |
| Jones Cycladenia | <i>Cycladenia humilis var jonesii</i> | T | Emery, Garfield, Grand, & Kane. |
| | Family Asclepiadaceae | | |
| Welsh's Milkweed | <i>Asclepias welshii</i> | T | Kane. |
| | Family Asteraceae | | |
| Maguire Daisy | <i>Erigeron maguirei</i> | T | Emery, Garfield, & Wayne. |
| Last Chance Townsendia | <i>Townsendia aprica</i> | T | Emery, Sevier, & Wayne. |
| | Family Brassicaceae | | |
| Barneby Ridge-cress | <i>Lepidium barnebyanum</i> | E | Duchesne. |
| Kodachrome Bladderpod | <i>Lesquerella tumulosa</i> | E | Kane. |
| Clay Reed-mustard | <i>Schoenocrambe argillacea</i> | T | Uintah. |
| Barneby Reed-mustard | <i>Schoenocrambe barnebyi</i> | E | Emery & Wayne. |
| Shrubby Reed-mustard | <i>Glaucocarpum suffrutescens</i> | E | Duchesne & Uintah. |
| | Family Cactaceae | | |
| San Rafael Cactus | <i>Pediocactus despainii</i> | E | Emery & Wayne. |
| Siler Pincushion Cactus | <i>Pediocactus sileri</i> | T | Kane & Washington. |
| Winkler Pincushion Cactus | <i>Pediocactus winkleri</i> | T | Emery & Wayne. |
| Uinta Basin Hookless Cactus | <i>Sclerocactus glaucus</i> | T | Carbon, Duchesne, & Uintah. |
| Wright Fishhook Cactus | <i>Sclerocactus wrightiae</i> | E | Emery, Sevier, & Wayne. |
| | Family Fabaceae | | |
| Deseret Milkvetch | <i>Astragalus desereticus</i> | T | Utah. |
| Shiwits or Shem Milkvetch | <i>Astragalus ampullarioides</i> | E | Washington. |
| Holmgren Milkvetch | <i>Astragalus holmgreniorum</i> | E | Washington. |
| Heliotrope Milkvetch | <i>Astragalus montii</i> | T | Sanpete & Sevier. |
| | Family Hydrophyllaceae | | |
| Clay Phacelia | <i>Phacelia argillacea</i> | E | Utah. |
| | Family Ophioglossaceae | | |
| Slender Moonwort | <i>Botrychium lineare</i> | C | Salt Lake. |
| | Family Papaveraceae | | |
| Dwarf Bearclaw-poppy | <i>Arctomecon humilis</i> | E | Washington. |
| | Family Primulaceae | | |
| Maguire Primrose | <i>Primula maguirei</i> | T | Cache. |
| | Family Ranunculaceae | | |
| Autumn Buttercup | <i>Ranunculus aestivalis</i> | E | Garfield. |
| | Family Scrophulariaceae | | |
| White River Beardtongue | <i>Penstemon scariosus var albifluvis</i> | C | Uintah. |

**Utah's Federally Listed
Threatened (T), Endangered (E), and Candidate (C) Invertebrate Species**

| <u>Common Name</u> | <u>Scientific Name</u> | <u>Status</u> | <u>County of Occurrence</u> |
|---------------------------------------|---|---------------|-----------------------------|
| Mollusks: | | | |
| Ogden Rocky Mountainsnail | <i>Oreohelix peripherica wasatchensis</i> | C | Weber. |
| Kanab Ambersnail | <i>Oxyloma kanabense</i> | E | Kane. |
| Utah Valvata Snail | <i>Valvata utahensis</i> | E Extirpated | Formerly found in Utah. |
| Fat-whorled Pondsnaill | <i>Stagnicola bonnevillensis</i> | C | Box Elder. |
| Insects: | | | |
| Coral Pink Sand Dunes Tiger Beetle | <i>Cicindela limbata albissima</i> | C | Kane. |

**Utah's Federally Listed
Threatened (T), Endangered (E), and Candidate (C) Vertebrate Species**

| <u>Common Name</u> | <u>Scientific Name</u> | <u>Status</u> | <u>County of Occurrence</u> |
|--------------------------------|--------------------------------------|----------------|--|
| Amphibians: | | | |
| Relict Leopard Frog | <i>Rana onca</i> | C Extirpated | Formerly Washington. |
| Fishes: | | | |
| Lahontan Cutthroat Trout | <i>Oncorhynchus clarkii henshawi</i> | T | Introduced in Box Elder. |
| Humpback Chub | <i>Gila cypha</i> | E | Carbon, Emery, Garfield, Grand, San Juan, Uintah, & Wayne. Possibly Duchesne. Formerly Daggett & Kane. |
| Bonytail | <i>Gila elegans</i> | E | Carbon, Emery, Garfield, Grand, San Juan, Uintah, & Wayne. Possibly Duchesne. Formerly Daggett & Kane. |
| Virgin Chub | <i>Gila seminuda</i> | E | Washington. |
| Colorado Pikeminnow | <i>Ptychocheilus lucius</i> | E | Carbon, Daggett, Emery, Garfield, Grand, San Juan, Uintah, & Wayne. Possibly Duchesne. Formerly Kane. |
| Woundfin | <i>Plagopterus argentissimus</i> | E | Washington. |
| June Sucker | <i>Chasmistes liorus</i> | E | Utah. Introduced in Box Elder, Salt Lake, & Weber. |
| Razorback Sucker | <i>Xyrauchen texanus</i> | E | Carbon, Emery, Garfield, Grand, San Juan, Uintah, & Wayne. Possibly Duchesne. Formerly Daggett & Kane. |
| Reptiles: | | | |
| Desert Tortoise | <i>Gopherus agassizii</i> | T | Washington. |
| Birds: | | | |
| California Condor | <i>Gymnogyps californianus</i> | E Experimental | Visits Southern Utah from Northern Arizona. Formerly Beaver & Iron. |
| Whooping Crane | <i>Grus americana</i> | E Extirpated | Formerly passed through E Utah. |
| Yellow-billed Cuckoo | <i>Coccyzus americanus</i> | C | Occurs or possible in all counties except Rich. |
| Mexican Spotted Owl | <i>Strix occidentalis lucida</i> | T | Emery, Garfield, Iron, Kane, San Juan, Uintah, Washington, & Wayne. Possibly Carbon & Grand. |
| Southwestern Willow Flycatcher | <i>Empidonax traillii extimus</i> | E | Emery, Garfield, Grand, Iron, Kane, San Juan, Washington, & Wayne. |

Mammals:

| | | | |
|----------------------|--------------------------|----------------|---|
| Utah Prairie-dog | <i>Cynomys parvidens</i> | T | Beaver, Garfield, Iron, Kane, Millard, Piute, Sanpete, Sevier, & Wayne. |
| Gray Wolf | <i>Canis lupus</i> | E Extirpated | Formerly found throughout Utah. |
| Brown (Grizzly) Bear | <i>Ursus arctos</i> | T Extirpated | Formerly found throughout Utah. |
| Black-footed Ferret | <i>Mustela nigripes</i> | E Experimental | Unconfirmed sightings persist from Carbon, Daggett, Duchesne, Emery, Grand, Rich, San Juan, & Summit. Introduced as experimental non-essential in Uintah. |
| Canada Lynx | <i>Lynx canadensis</i> | T | Daggett, Duchesne, Summit, Uintah, & Wasatch. Formerly Sanpete. Possibly Cache, Morgan, Rich, Salt Lake, Utah, & Weber. |

DEFINITIONS

| | |
|-----------------------|--|
| E | A taxon that is listed by the U.S. Fish and Wildlife Service as "endangered" with the possibility of worldwide extinction. |
| E Experimental | An "endangered" taxon that is considered by the U.S. Fish and Wildlife Service to be "experimental and non-essential" in its designated use areas in Utah. |
| E, T, or C Extirpated | An "endangered," "threatened," or "candidate" taxon that is "extirpated" and considered by the U.S. Fish and Wildlife Service to no longer occur in Utah. |
| E or T Proposed | A taxon "proposed" to be listed as "endangered" or "threatened" by the U.S. Fish and Wildlife Service. |
| T | A taxon that is listed by the U.S. Fish and Wildlife Service as "threatened" with becoming endangered. |
| C | A taxon for which the U.S. Fish and Wildlife Service has on file sufficient information on biological vulnerability and threats to justify it being a "candidate" for listing as endangered or threatened. |

Note: Please contact the U.S. Fish and Wildlife Service (801-975-3330) for the purpose of consultation under the Endangered Species Act.

SECTION 13

Attachment E – Historical Properties



UTAH STATE REGISTER OF HISTORIC SITES
(compiled June, 1988; document 34p)

| <u>COUNTY/SITE</u> | <u>NOMINATION DATE</u> | <u>STATUS</u> | <u>ADDRESS/LOCATION</u> | <u>CITY</u> |
|---|------------------------|---------------|---------------------------------------|--------------|
| <u>BEAVER COUNTY</u> | | | | |
| Beaver County Courthouse | (1/7/70) | (S&N) | 90 East Center | Beaver |
| Shepherd, Marcus L., House | (12/1/71) | (S) | 210 East 200 North | Beaver |
| Williams, John, Hotel | (2/9/72) | (S) | 100 North 100 West | Milford |
| <u>BOX ELDER COUNTY</u> | | | | |
| **Baird, Malcom James, Hs. | (2/9/72) | (S&N1) | 195 West Center Street | Willard |
| Bank of Corinne | (8/4/71) | (S) | Montana St between 5 & 6 | Corinne |
| Baron Woolen Mill (see "Brigham City Mercantile & Manuf. Assoc.'s Woolen Mill") | | | | |
| Beaver Dam Church | (5/30/73) | (S) | | Beaver Dam |
| Box Elder Stake Tabernacle | (6/3/70) | (S&N) | Main between 200 & 300 So. | Brigham City |
| Briggs, Leonard, House (see "Wight, Lily, House") | | | | |
| Brigham City Co-op Planning Mill | (1/12/72) | (S) | 547 East Forest | Brigham City |
| Brigham City Co-op Store | (8/4/71) | (S) | Main and Forest | Brigham City |
| Brigham City First Ward Meetinghouse | (3/2/77) | (S) | 315 South 100 East | Brigham City |
| *Brigham City Mercantile & Mfg Tannery | (3/5/70) | (S&D) | | Brigham City |
| Brigham City Merc. & Mfg. Assoc.'s Woolen Mill | (4/7/71) | (S) | 56 North 500 East | Brigham City |
| (listed in the Review Committee minutes as "Baron Woolen Mill") | | | | |
| Call, Omer, House | (4/12/72) | (S&N1) | 95 South 100 West | Willard |
| Calls Fort | (2/9/72) | (S) | Hwy 69, 7 mi. North /Brg. Cty. County | |
| *Corinne Methodist Episcopal Church | (3/5/70) | (S&N) | Corner of Colorado & 6th So. | Corinne |
| Davis, Richard Jenkins, House | (4/12/72) | (S&N1) | NE corner 100 So. & 100 W. | Willard |
| Edwards, John L., House | (8/29/73) | (S&N1) | 55 South 200 West | Willard |
| Facer, George, House | (4/12/72) | (S&N1) | 50 North Main | Willard |
| Hansen Cooperative Dairy | (9/27/72) | (S) | 3 miles SE Hampton's Ferry | Collinston |
| Hampton's Ford Stage Stop & Barn | (1/7/70) | (S&N) | | Collinston |
| **Harding, Charles, House | (4/12/72) | (S&N1) | 142 So. Main | Willard |
| Harding, George, House | (4/12/72) | (S&N1) | 50 South 100 West | Willard |
| **Harper House | (1/6/71) | (S) | 5 mi. no. Brig. Cty., Hwy. 89 | County |
| Jones, Shadrach, House | (4/12/72) | (S&N1) | 101 West 200 South | Willard |
| **Knudsen, J. C., House | (11/7/73) | (S) | 48 South 100 East | Brigham Cit |
| Lower Bear River Sites | (6/14/72) | (S&N) | approx 6 miles West | Brigham Cit |
| Mason, George, House and Barn | (4/12/72) | (S&N1) | 150 North 200 West | Willard |
| Miller, John, House | (4/12/72) | (S&N1) | 85 East Center | Willard |
| Orbit Inn Site | (6/14/72) | (S&N) | 1/2 mile north Route 191 | Brigham Cit |
| (part of the Lower Bear River Sites) | | | | |
| Promontory Caves I & II | (6/14/72) | (S) | | County |

BOX ELDER COUNTY (continued)

2.

| | | | | |
|--|------------|---------------------|---|--------------|
| Southern Pacific Railroad Ogden- | | | | |
| Lucin Cutoff Trestle | (10/20/71) | (S&N) | n. arm of Great Salt Lake 30 miles west of Ogden | County |
| Swallow Shelter | (6/14/72) | (S) | | County |
| Von Curtis House | (1/6/71) | (S) | probably located in | Harper Ward |
| (no other information available) | | | | |
| Ward, Alfred, House | (4/12/72) | (S&N ¹) | 125 South Main | Willard |
| Washaki Indian Farm | (11/1/72) | (S) | on Malad River near UT, ID | Bord. County |
| Wells, Lyman, House | (8/29/73) | (S&N ¹) | 10 North Main | Willard |
| Wight, Lily, House | (1/6/71) | (S) | 4-5 miles no. of | Harper Ward |
| (listed in the Review Committee minutes as "Briggs, Leonard, House") | | | | |

CACHE COUNTY

| | | | | |
|--|-----------|---------------------|---------------------------|--------------|
| Baker, Joseph, House | (1/6/71) | (S) | 175 North 100 West | Mendon |
| (listed in the Review Committee minutes as "Reid, A. L., House") | | | | |
| **Cache County Courthouse | (7/8/70) | (S&N ²) | 179 North Main | Logan |
| Cache Junction Depot and Cafe | (3/13/74) | (S&D) | | Cache Junctn |
| Eccles, David, House | (11/1/72) | (S&N) | 250 West Center | Logan |
| Edgewood Hall | (8/4/71) | (S) | 325 South 300 East | Providence |
| Hansen, Soren House | (8/4/71) | (S&N) | 166 South Main | Hyrum |
| Howell-Theurer House | (1/6/71) | (S&N) | 30 South 100 East | Wellsville |
| (listed in the Review Committee minutes as "Speth, Dee, House") | | | | |
| Logan Hydro Station | (4/7/71) | (S) | mouth of Logan Canyon | Logan |
| Logan (Cache County) Tabernacle | (5/30/73) | (S&N) | Main and First East | Logan |
| Logan Temple | (2/3/71) | (S&N) | 150 North 300 East | Logan |
| Logan Temple Barn | (7/8/70) | (S&N) | 368 East 200 North | Logan |
| Lyric Theatre | (5/5/71) | (S&N ²) | 28 West Center | Logan |
| Nibley, Ellen Ricks, House | (7/8/70) | (S&N ²) | 193 West 100 North | Logan |
| (listed in the Review Committee minutes as "Scott House") | | | | |
| Old Main Building | (6/3/70) | (S&N) | Utah State Univer. Campus | Logan |
| Paradise Tithing Office | (1/12/72) | (S&N) | 28 North Main | Paradise |
| **President's House | (6/2/71) | (S) | Utah State University | Logan |
| Pullam, Isaac, House | (8/4/71) | (S) | off Highway 142 | Trenton |
| Reid, A. L., House (see "Baker, Joseph, House") | | | | |
| Riggs, Zial, House | (2/9/72) | (S&N) | 94 South 100 East | Wellsville |
| Scott House (see "Nibley, Ellen Ricks, House") | | | | |
| St. John's Episcopal Church | (10/3/73) | (S&N ²) | 85 East 100 North | Logan |
| Speth, Dee, House (see "Howell-Theurer House") | | | | |
| Thatcher, Joseph W., House | (8/4/71) | (S&N ²) | 164 South 300 West | Logan |
| Thatcher, Moses, House | (9/8/71) | (S&N ²) | 95 South 100 West | Logan |
| *Union Pacific Railroad Station | (3/5/70) | (S&N ²) | 600 West and Center | Logan |
| Wellsville LDS Tabernacle | (5/30/73) | (S&N) | 75 South 100 East | Wellsville |

CARBON COUNTY

| | | | | |
|---|-----------|-------|---------------------------|-------------|
| Bamberger Monument | (3/17/76) | (S) | State Highway 33 | County |
| Dupin Mercantile | (5/2/79) | (S) | 4300 North 200 West | Spring Glen |
| Greek Orthodox Church of the Assumption (Hellenic) | (4/12/72) | (S&N) | 61 So. Second East Street | Price |
| Millerich, Martin, Hall/ Slovenian Ntl. House | (9/1/76) | (S&N) | Main Street | Spring Glen |
| Pleasant Valley Coal Company Building | (1/12/72) | (S&D) | | Castle Gate |

DAGGETT COUNTY

| | | | | |
|-----------------------------------|-----------|-------|------------------------|---------------|
| Dowd's Grave, Dugout and Trail | (4/7/71) | (S) | | Flaming Gorge |
| Parson's, Doc, Cabin | (1/12/72) | (S&N) | | Brown's Park |
| Robinson, "Uncle" Jack, Cabin | (6/3/70) | (S) | near Flaming Gorge Dam | Greendale |
| Swett Ranch | (1/12/72) | (S&N) | | Greendale |

DAVIS COUNTY

| | | | | |
|---|------------|-------|--------------------------|-------------|
| Barnes-Gibson House (see, "Barnes, John R., House") | | | | |
| Barnes, John R., House | (6/2/71) | (S&N) | 10 South 100 West | Kaysville |
| (listed in the Review Committee minutes as "Barnes-Gibson House") | | | | |
| Blood, William, House | (5/5/71) | (S) | 9 South 200 West | Kaysville |
| Blood, Henry H., House | (8/14/74) | (S&N) | 95 South 300 West | Kaysville |
| Chase, George O., House | (1/12/72) | (S) | 981 North Main | Centerville |
| Chase, George O., Rock Granary | (1/12/72) | (S) | 975 North Main | Centerville |
| Clark, Ezra T., House | (6/14/72) | (S) | 368 West State | Farmington |
| Deuel, Osmyn M., House | (8/4/71) | (S) | 271 South 200 East | Centerville |
| Duncan, Charles, Estate | (8/4/71) | (S) | 445 North 400 East | Centerville |
| Farmington Rock Chapel | (2/9/72) | (S) | 272 North Main | Farmington |
| Kaysville Presbyterian Church | (11/7/73) | (S) | Center and 100 East | Kaysville |
| Kaysville Tabernacle | (10/30/74) | (S) | 198 West Center | Kaysville |
| Leonard, Truman, House | (4/12/72) | (S) | 94 East 500 North | Farmington |
| Old Rock Mill (see "Richards, Willard, Rock Mill") | | | | |
| Phillips, Edward, House | (10/30/74) | (S) | 358 West Center | Kaysville |
| Richards, Franklin, D., House | (1/12/72) | (S&N) | 368 North 100 East | |
| Richards, Willard, Rock Mill | (4/8/70) | (S) | State 107 & North Main | Farmington |
| (listed in the Review Committee minutes as "Old Rock Mill") | | | | |
| Roueche, Thomas F., House | (10/20/71) | (S) | 1002 South Roueche Lane | Kaysville |
| Thurston-Chase Cabin | (1/12/72) | (S) | 981 North Main | Centerville |
| West Layton LDS Church | (7/8/70) | (S&D) | Highway 89 & Gentile St. | Layton |
| Wood Cemetery | (6/14/72) | (S) | Highway 89 | Woods Cross |

EMERY COUNTY

| | | | | |
|----------------------------|-----------|-------|----------------------------|------------------------|
| Castle Dale School | (2/9/72) | (S&N) | NW corner 100 No. & 100 E. | Castle Dale County |
| Clyde's Cavern | (6/14/72) | (S) | | |
| Connellville Ghost Town | (10/3/73) | (S) | Mouth of Coal Canyon | Connellville County |
| Dry Wash Petroglyphs | (3/26/75) | (S) | | Emery County |
| Emery LDS Chapel | (5/30/73) | (S&N) | | |
| Head of Sinbad Pictographs | (4/7/71) | (S) | top of San Rafael Swell | County |
| Swasey Cabin District | (5/5/71) | (S) | appr. 40 miles SE of Emery | County |

GARFIELD COUNTY

| | | | | |
|----------------------------|-----------|-------|---------------------------|---------------------|
| Escalante Tithing Office | (1/6/71) | (S&N) | 40 South Center | Escalante County |
| Parker, Maximillian, Cabin | (6/14/72) | (S) | Hwy 89, So of Circleville | |

GRAND COUNTY

| | | | | |
|---------------------|-----------|-------|--------------------|--------|
| Elk Mountain | | | | County |
| Mission Fort Site | (1/10/73) | (S&N) | | County |
| Pinhook Battle Site | (11/3/76) | (S&N) | near Castle Valley | |

IRON COUNTY

| | | | | |
|---|-----------|-------|-------------------------------------|----------------------|
| Cedar City Union Pacific Railroad Station | (5/29/74) | (S&N) | 220 North Main | Cedar City County |
| Evans Indian Mound | (9/2/70) | (S&N) | Vicinity of Summit | Cedar City |
| Hunter, Joseph S., House | (8/4/71) | (S&N) | 86 East Center | Summit |
| Median Village | (6/14/72) | (S) | approx 1/2 mile North of west of | Cedar City |
| Old Irontown | (4/8/70) | (S&N) | | |
| Old Main and Science Building | (1/7/70) | (S&N) | SUSU Campus | Cedar City |
| (listed in the Review Committee minutes as "Old Main and Old Administration Building") | | | | |
| Parowan Rock Church | (6/2/71) | (S&N) | Center & 100 South | Parowan |
| Parowan Third Ward | (6/11/75) | (S) | 90 South Main Street | Parowan |
| Pioneer Iron Works | | | | |
| Blast Furnace Site | (3/26/75) | (S) | 400 North 100 East | Cedar City |
| Wood, George Lamar, Cabin | (8/4/71) | (S&N) | Municipal Park | Cedar City |

JUAB COUNTY

| | | | | |
|----------------------------------|-----------|-------|--------------------------|--------------------------|
| Goldsborough Hotel | (12/9/70) | (S&D) | 260 North Main Street | Nephi Levan County |
| Levan LDS Church | (5/30/73) | (S) | | |
| Nephi Mounds | (6/14/72) | (S&N) | appr. 2 miles N of Nephi | |
| *Whitmore, George C., Mansion | (3/5/70) | (S&N) | 106 South Main | Nephi |

KANE COUNTY

Bowman-Chamberlain House (12/9/70) (S&N) 14 East 100 South Kanab
 (listed in the Review Committee minutes as "McAllister, June, House")
 Hole-in-the-Rock Trail (5/5/71) (S&N) County
 Lundquist, Frederick A., House (4/7/71) (S) 30 North 200 West Kanab
 McAllister, June, House (see "Bowman-Chamberlain House")

MILLARD COUNTY

Burtner Dam Ruins (4/7/71) (S) vicinity of Delta County
 Cove Fort (1/7/70) (S&N) 2 miles Ea. on Interstate County
 15 on State Route 4
 Delta Sugar Factory Club House (4/7/71) (S) Delta
 Delta Sugar Factory Warehouse (4/7/71) (S&D) Delta
 Deseret School (2/19/75) (S) Deseret
 Fillmore American Legion Hall (10/5/77) (S) Main Street Fillmore
 Fort Deseret (previous to 5/6/70) (S&N) 2 mi. So. of Deseret on U-257 Deseret
 Gunnison Bend Dam and Reservoir (4/7/71) (S) Lower Sevier River County
 Gunnison Massacre Site (8/4/71) (S&N) 6 Miles SW of Hinckley County
 McCullough Log House and Post Office (2/9/72) (S) Rose Garden/Exchange Ave. Delta
 Meadow LDS Meeting House (2/19/75) (S&D) Meadow
 Millard Academy (4/12/72) (S&N) 55 North 200 West Hinckley
 Pharo Village (6/14/72) (S&N) appr. 14 mi. SW of Scipio County
 Partridge, Edward Jr., House (2/3/71) (S) 12 South 200 West Fillmore
 Old Railroad Bridge - Sevier River (7/18/73) (S) 3-1/2 miles NE of Delta County
 Rock Schoolhouse (9/27/72) (S) 90 South 100 West Fillmore
 Stevens, David Riley, House (2/3/71) (S) Holden
 Territorial Capitol (1/7/70) (S&N) Cntr. btwn. Main & 100 W. Fillmore
 Topaz War Relocation Center (4/12/72) (S&N) 16 mi. Northwest of Delta County
 Woodrow Hall (7/18/73) (S) 10 Miles NW of Delta Woodrow

MORGAN COUNTY

Heiner, Daniel, House (10/20/71) (S&N) 543 North 700 East Morgan
 Hopkins, John, House (11/1/72) (S) Croydon
 Mountain Green Trapper Confrontation Site (11/1/72) (S) County
 Porterville Church (2/3/71) (S) Porterville
 Turner, Charles C., House (2/6/74) (S) 162 West 100 North Morgan

PIUTE COUNTY

Piute County Courthouse (4/8/70) (S&N) Center St and US89 Junction

RICH COUNTY

6.

| | | | | |
|---------------------------------|-----------|-------|---------------------------|----------|
| Trapper Rendezvous Site 1827 | (11/1/72) | (S) | T5E, R13N | County |
| Laketown Relief Society Hall | (9/1/76) | (S) | SE cnr of old town square | Laketown |
| Randolph Tabernacle | (9/25/74) | (S&N) | Utah State Highway 16 | Randolph |

SALT LAKE COUNTY

| | | | | |
|--|------------|---------------------|---------------------------|-----|
| Alta Club Building | (4/7/71) | (S&N ³) | 100 East South Temple | SLC |
| Armstrong, W.W., House | (3/8/72) | (S&N ³) | 1177 East South Temple | SLC |
| Armstrong, Wm Francis, (Ellerbeck,) House | (3/13/74) | (S&N ⁴) | 140 B Street | SLC |
| Armstrong, Wm Francis, House | (5/29/74) | (S&N) | 667 East 100 South | SLC |
| Arnold, Henry, House | (3/13/74) | (S) | no information available | |
| Auerbach-Boyd Park Building (see Park-Auerbach-Boyd Park Building) | | | | |
| Baddley, George, House | (5/29/74) | (S) | 974 East 300 South | SLC |
| Bamberger Building (see "First National Bank") | | | | |
| Bamberger, Simon, House | (8/14/74) | (S&N) | 625 East 100 South | SLC |
| Barton House | (5/29/74) | (S&N ⁴) | 157 B Street | SLC |
| Beehive House | (11/5/69) | (S&N) | 67 East South Temple | SLC |
| Beer, William F., House | (7/16/75) | (S&N ⁴) | 181 B Street | SLC |
| Beesley, Ebenezer, House | (10/20/71) | (S&N) | 80 West 200 North | SLC |
| Bowman, Robert, House | (10/30/74) | (S&N ⁵) | 434 Quince | SLC |
| Brinton, David Bronson, House | (8/14/74) | (S&N) | 1981 East 4800 South | SLC |
| Brooks-Geoghegan House (listed in the Review Committee minutes as "Miller-Geoghegan House") | (3/13/74) | (S&N ⁵) | 204 N State/105 E Capitol | SLC |
| Browning-Aures, House | (10/3/73) | (S&N ⁵) | 328 Center | SLC |
| Capitol Hill Historic District (note: the "Marmalade District", a small section of what has become the Capitol Hill H. D., was approved for the state register 1/12/72) | (4/25/73) | (S&N ⁵) | SLC | |
| Carlson, August W., House | (11/7/73) | (S&N ⁵) | 378 Quince | SLC |
| Casto, Santa Anna, House | (8/4/71) | (S&N) | 2731 Casto Lane | SLC |
| Cathedral of the Madeleine | (4/8/70) | (S&N) | 331 East South Temple | SLC |
| Chase, Issac Mill | (1/7/70) | (S&N) | Liberty Park | SLC |
| City and County Building (Salt Lake) | (1/7/70) | (S&N) | 451 South State | SLC |
| Cobbleknoll | (7/16/75) | (S&N ⁴) | 207-209 Fourth Avenue | SLC |
| Constitution Building | (5/30/73) | (S&D) | 34 South Main | SLC |
| Cosgriff-Hogle House/ Carriage House | (3/8/72) | (S&D) | 548 East South Temple | SLC |
| *Council Hall | (3/5/70) | (S, N&L) | Capitol Hill | SLC |
| Culmer, William H., House | (9/27/72) | (S&N) | 33 C Street | SLC |
| Daft Block (building) (listed in the Review Committee minutes as "Dayne's Jewelry Building") | (8/14/74) | (S&N) | 128 South Main | SLC |
| Darling, Elmer E., House | (2/19/75) | (S&N ⁴) | 1007 First Avenue | SLC |
| Daynes Jewelry Building (see "Daft Block") | | | | |
| Denver & Rio Grande Railroad Station | (1/12/72) | (S&N) | 300 Rio Grande | SLC |
| Devereaux House | (1/7/70) | (S&N) | 334 West South Temple | SLC |

SALT LAKE COUNTY (Continued)

7.

| | | | | |
|---|---------------------------------|---------------------|----------------------------|-----|
| Dickson-Gardner-Wolf House | (7/18/73) | (S&N ⁵) | 273 East Capitol | SLC |
| Donelson, Charles M. House | (4/30/75) | (S) | 436 Alameda | SLC |
| (listed in the Review Committee minutes as "Pyper, George D., House") | | | | |
| Downey, Major House/ Carriage House | (5/29/74) | (S&N ³) | 808 East South Temple | SLC |
| Eagle Emporium Building | (9/27/72) | (S) | 102 South Main | SLC |
| Eagles/Equitable Building | (8/20/75) | (S) | 404 South West Temple | SLC |
| Eighteenth Ward Chapel | (4/8/70) | (S&D) | | SLC |
| Ellis, Adrian C., House | (3/17/76) | (S&N ⁴) | 607 Second Avenue | SLC |
| Ensign Peak | (5/29/74) | (S) | | SLC |
| Evans, John A., House | (10/30/74) | (S&N ⁴) | 174 B Street | SLC |
| Evans, Morris R., House | (3/8/72) | (S&N ³) | 601 East South Temple | SLC |
| Fife, William E., House | (3/8/72) | (S&N ³) | 677 East South Temple | SLC |
| First Church of Christ Scientist | (7/18/73) | (S&N) | 352 East 300 South | SLC |
| First National Bank | (9/25/74) | (S&N) | 163 South Main | SLC |
| (listed in the Review Committee minutes as "Bamberger Building") | | | | |
| First Presbyterian Church | (11/7/73) | (S&N ³) | 347 East South Temple | SLC |
| *Fisher, Albert E., Carriage House | (3/5/70) | (S&N) | rear 1206 West 2nd South | SLC |
| Fisher, Albert E., House | (10/30/74) | (S&N) | 1206 West 200 South | SLC |
| Fort Douglas Officers' Circle | (1/7/70) | (S&N) | near University of Utah | SLC |
| Franklin, Pedar, House | (3/8/72) | (S&N ³) | 1116 East South Temple | SLC |
| Gardner Home and Mill Site | (8/4/71) | (S) | 1475 Murphys Lane | SLC |
| Gentsch-Thompson House | (8/14/74) | (S&N ³) | 576 East South Temple | SLC |
| Gibbs-Thomas House | (2/9/72) | (S&N) | 137 North West Temple | SLC |
| Glendenning, James, House | (5/29/74) | (S&N ³) | 617 East South Temple | SLC |
| Granite Paper Mill | (4/8/70) | (S&N) | 6900 South Big Ctnwd Can. | SLC |
| Grant-Walker House | (3/8/72) | (S&N ³) | 1205 East South Temple | SLC |
| Groesbeck, Nicholas, House | (12/1/71) | (S) | rear 82 First North | SLC |
| Hatfield-Lynch | (2/19/75) | (S&N ³) | 1167 East South Temple | SLC |
| Haxton Place (street) | (5/29/74) | (S&N ³) | 940 East South Temple | SLC |
| Holy Cross Hospital Chapel | (2/18/76) | (S) | 1045 East South Temple | SLC |
| Holy Trinity Greek Orthodox Church | (2/6/74) | (S&N) | 279 South 300 West | SLC |
| Hotel Utah | (3/8/72) | (S&N) | South Temple & Main Street | SLC |
| Jonasson, Swen J., House | (10/3/73) | (S&N ⁵) | 390 Center | SLC |
| (listed in the Review Committee minutes as "Johnson, Gustave, House") | | | | |
| Johnson, Gustave, House | (see "Jonasson, Swen J. House") | | | |
| Kahn, Emmanuel, House | (3/8/72) | (S&N) | 678 South Temple | SLC |
| Karrick Block (building) | (9/25/74) | (S&N) | 236 South Main | SLC |
| Kimball, Heber C., Grave | (2/9/72) | (S&N ⁵) | 41 Gordon Place | SLC |
| Kimball, J. Golden, House | (7/18/73) | (S&N ⁵) | 36 East 200 North | SLC |
| Ladies Literary Club | (3/17/76) | (S&N) | 850 East South Temple | SLC |
| Liberty Park | (1/10/72) | (S&N) | 700 East | SLC |
| Little Dell Way Station | (12/9/70) | (S&N) | Mountain Dell Canyon | SLC |
| Lollin Block (building) | (9/25/74) | (S&N) | 238 South Main | SLC |
| McCune Mansion | (2/3/71) | (S&N) | 200 North Main Street | SLC |
| McIntyre, William H., House & Carriage | (4/7/71) | (S&N) | 259 Seventh Avenue | SLC |
| *Meyer, Frederick A.E., House | (3/5/70) | (S&N) | 929 East 200 South | SLC |

SALT LAKE COUNTY (Continued)

8.

| | | | | |
|---|-------------------------------------|---------------------|----------------------------|---------------|
| Miller-Geoghegan House | (see "Brooks-Geohegan House") | | | |
| Morrow, William/Taylor, John W., House | (10/20/71) | (S&N ⁵) | 390 Quince | SLC County |
| Mountain Dell Dam | (6/3/70) | (S&N) | Parley's Canyon | |
| Murdoch, David Lennox, House | (8/14/74) | (S&N ⁴) | 73 G Street | SLC |
| Musical Emporium | (7/16/75) | (S&D) | 45 West 100 South | SLC |
| New York Hotel | (7/16/75) | (S&N) | 42 Post Office Place | SLC |
| 19th Ward Chapel/Relief Society Hall | (4/8/70) | (S&N) | 168 West 500 North | SLC |
| (in the Review Committee minutes, these two structures were listed separately) | | | | |
| Nutting, Reverend John, House | (3/26/75) | (S&N ⁵) | 161 West 400 North | SLC |
| *Old Clock | (3/5/70) | (S&N) | SW corner 100 S. and Main | SLC |
| Old Pioneer Fort Site | (1/12/72) | (S&N) | 300-400 South 200-300 West | SLC |
| Orpheum Theatre | (6/14/72) | (S&N) | 132 South State | SLC |
| *Ottinger Hall | (3/5/70) | (S&N) | 233 Canyon Road | SLC |
| Park Stake First Ward | (2/6/74) | (S) | | SLC |
| Perkes, Josiah L., House | (1/12/77) | (S&N) | 443 North 300 West | SLC |
| *Platts, John, House | (3/5/70) | (S) | Capitol Hill District | SLC |
| Pugh, Edward, House | (7/26/72) | (S&N) | 1299 East 4500 South | SLC |
| Pyper, George D., House | (see "Donelson, Charles M., House") | | | |
| Quayle, Thomas, House | (8/14/74) | (S&N ⁵) | 355 Quince | SLC |
| Rawlings, Edwin, House | (11/7/73) | (S&N ⁵) | 318 Almond | SLC |
| Rocky Mountain Bell Telephone Co. | (7/16/75) | (S&D) | 56 South State | SLC |
| Rowland Hall/St. Marks School | (5/5/71) | (S&N) | 205 1st Avenue | SLC |
| Saint Mark's Episcopal Cathedral | (1/7/70) | (S&N) | 231 East 100 South | SLC |
| Salisbury, O.J., House | (8/14/74) | (S) | 574 East 100 South | SLC County |
| Saltair (previous to 7/8/70) | | (S&D) | | |
| Salt Lake Public Library (now Hansen Planetarium) | (7/26/72) | (S&N) | 15 South State | SLC |
| Salt Lake Stock/Mining Exchange Bldg. | (6/14/72) | (S&N) | 39 Exchange Place | SLC |
| Savage, Charles R., House | (9/25/74) | (S&N ⁴) | 80 D Street | SLC |
| Scheid, Karl A., House | (3/8/72) | (S&N ³) | 1127 East South Temple | SLC |
| Scott-Auerbach-Boyd Park Building | (8/20/75) & (2/18/76) | (S&D) | 162-166 South Main | SLC |
| Scott School "Pioneer Craft House" | (12/9/70) | (S) | 3271 South 500 East | SLC |
| Sherman-Jackling House | (3/8/72) | (S&N ³) | 731 East South Temple | SLC |
| Snow-Lieff-Stiefel House | (7/18/73) | (S&N ⁶) | 217 Canyon Road | SLC |
| South Temple Historic District | (3/8/72) | (S&N ³) | South Temple | SLC |
| (minutes include this description—"from Virginia Street to the depth of the frontage of South Temple Street.") | | | | |
| Spry, William, House | (10/30/74) | (S&N ⁴) | 368 First Avenue | SLC |
| Stiehl, George F., House | (3/8/72) | (S&N ³) | 966 East South Temple | SLC |
| Taylor-Pendleton House | (7/16/75) | (S&N ⁴) | 1203 Third Avenue | SLC |
| **Tenth Ward Square | (5/30/73) | (S&N) | 400 South 800 East | SLC |

SALT LAKE COUNTY (Continued)

| | | | | |
|-------------------------------------|-----------|---------------------|--------------------------|-------------|
| Terry, Louis L., House | (3/8/72) | (S&N ³) | 1229 East South Temple | SLC |
| Town Club | (3/8/72) | (S&N ³) | 1081 East South Temple | SLC |
| Tripp, Dr. Alonzo E., House | (4/30/75) | (S&N ⁴) | 328 G Street | SLC |
| Trolley Square | (5/30/73) | (S) | 500 South 700 East | SLC |
| *Twenty-First Ward | (3/5/70) | (S&D) | | SLC |
| Union Pacific Railroad Station | (1/12/72) | (S&N) | 400 West South Temple | SLC |
| *Utah Commercial Savings Bank | (3/5/70) | (S&N) | 22 East 100 South | SLC |
| Walker, Matthew H., House | (12/1/71) | (S&N ³) | 610 East South Temple | SLC |
| Wall, Enos A., Mansion | (6/2/71) | (S&N ³) | 411 East South Temple | SLC |
| Wasatch Springs and Plunge | (7/8/70) | (S&N) | 840 North 300 West | SLC |
| Washington School | (7/16/75) | (S&D) | | SLC |
| West Jordan LDS Church | (5/30/73) | (S) | 1140 West 7800 South | West Jordan |
| Wheeler, Henry J., Farm | (3/13/74) | (S&N) | 6343 South 900 East | SLC |
| Woodruff-Riter-Stewart Hs. | (7/18/73) | (S&N) | 95 East 200 North | SLC |
| Woodruff, Wilford, Farmhouse | (9/25/74) | (S&N) | 1604 South 500 East | SLC |
| Woodruff, Wilford, Villa | (9/25/74) | (S&N) | 1622 South 400 East | SLC |
| Young, Brigham, Cemetery | (6/14/72) | (S&N ⁴) | First Avenue | SLC |
| Young, Brigham, Forest Farmhouse | (4/8/70) | (S) | Pioneer Trail State Park | SLC |
| ZCMI "Cast Iron" Front | (1/7/70) | (S&N) | 15 South Main | SLC |

SAN JUAN COUNTY

| | | | | |
|-----------------------------------|-----------|-------|-----------------|-------------------------|
| Barton, Joseph F., Granary | (4/30/75) | (S) | | Verdure County |
| Comb. Wash Pueblo | (6/14/72) | (S) | | |
| Edge of the Cedars Indian Ruin | (4/8/70) | (S&N) | west of | Blanding White Canyo |
| Graves at Soldiers Crossing | (11/3/76) | (S) | | County |
| Navajo Mountain Arch. Area | (6/14/72) | (S) | | Oljato |
| Oljato Trading Post | (4/8/70) | (S&N) | Monument Valley | |

SANPETE COUNTY

| | | | | |
|---|-----------|---------------------|--------------------------|-------------|
| Beck House | (4/7/71) | (S&N ⁷) | Main Street | Spring City |
| Bohne-Seeley Farmhouse | (7/26/72) | (S) | 2 m North of | Mt. Pleasar |
| Cox, Frederick Walter, Hse. | (2/9/72) | (S) | SE Corner 100 No. 100 W. | Manti |
| Cox-Shoemaker-Perry House | (5/5/71) | (S&N) | 50 North 100 West | Manti |
| (listed in the Review Committee minutes as "Parry House") | | | | |
| Ephraim City Hall and Jail | (3/26/75) | (S) | 38 East Center | Ephraim |
| Ephraim United Order Co-op Mercantile Institution | (6/3/70) | (S&N) | 90 North Main | Ephraim |
| Fairview Museum | (12/9/70) | (S) | 85 North 100 East | Fairview |
| Fayette North Ward Chapel | (2/19/75) | (S) | | Fayette |
| Greaves-Deakin House | (9/27/72) | (S) | 118 South Main | Ephraim |
| Gunnison Presbyterian Church | (8/20/75) | (S) | | Gunnison |
| Hyde, Orson, House | (5/5/71) | (S&N ⁷) | Main Street | Spring Cit |
| Manti North Ward Chapel | (5/30/73) | (S&D) | | Manti |
| Manti Tabernacle | (5/30/73) | (S) | | Manti |

SANPETE COUNTY (continued)

10.

| | | | | |
|---|-----------|---------------------|-----------------------|----------------------|
| Manti Temple | (2/3/71) | (S&N) | US Route 89 | Manti |
| McAllister Home- Temple Hotel | (9/27/72) | (S) | 401 North Main | Manti Spring City |
| Monson, Peter, House | (5/5/71) | (S&N ⁷) | | Moroni |
| Moroni Tithing Office | (2/19/75) | (S, N&D) | SW corner Town Square | Fountain Gre |
| Olsen, Hans Peter, Home | (11/7/73) | (S&N) | Main Highway | |
| Parry House (see "Cox-Shoemaker-Parry House") | | | | |
| Peterson, Canute, House | (1/7/70) | (S&N) | Main Street | Ephraim |
| Seely, William S., House | (8/4/71) | (S) | 150 South State | Mt. Pleasant |
| Spring City City Hall | (4/7/71) | (S&N ⁷) | Main Street | Spring City |
| Spring City Ward Chapel | (4/7/71) | (S&N ⁷) | | Spring City |
| Temple Hotel (see McAllister Home-Temple Hotel) | | | | |
| Wasatch Academy | (10/3/73) | (S&N) | | Mt. Pleasant |

SEVIER COUNTY

| | | | | |
|--|-----------|-------|--------------------------------------|------------------------|
| Cedar Grove Indian Treaty Site (also known as Fish Lake Peace Treaty Marker) | (3/17/76) | (S) | off Highway 62 near 47 South Main | Burrville Richfield |
| Christensen, John, Store | (4/21/76) | (S) | | Elsinore |
| Elsinore White Rock School | (8/20/75) | (S&N) | 25 South 100 East | Glenwood |
| Glenwood Gristmill | (6/3/70) | (S) | | |
| Ivie Creek Canyon Sites (see "Snake Rock Village, Sevier County") | | | | |
| Koosharem Amusement Hall | (3/17/76) | (S) | | Koosharem |
| Ramsay, Ralph, House | (1/6/71) | (S&N) | 57 East 200 North | Richfield |
| Sevier County Courthouse | (11/7/73) | (S&D) | Main St. between 2 & 3 No. | Richfield |
| Snake Rock Village (Ivie Creek Canyon Sites) | (6/14/72) | (S) | approx 32 m. E. of Salina | County |

SUMMIT COUNTY

| | | | | |
|--|------------|---------------------|---------------------|------------|
| City Hall, Park City | (1/12/72) | (S&N ⁸) | 528 Main | Park City |
| *Coalville Tabernacle (see "Summit Stake Tabernacle") | | | | |
| *Echo Church-School and Cemetery (added to the site 7/8/70) | (3/5/70) | (S) | head of Temple Lane | Echo |
| Eldridge, Alma, House | (1/10/73) | (S) | 97 North Main | Coalville |
| Hoyt, Samuel House | (1/7/70) | (S&N) | 2653 South 570 West | Hoytsville |
| Kimball Stage Stop | (1/7/70) | (S&N) | Kimball Junction | County |
| Park City Miners Hospital | (1/10/73) | (S&N) | | Park City |
| *St Mary of the Assumption Catholic School | (3/5/70) | (S&N) | 121 Park Avenue | Park City |
| Silver King Ore Loading Station | (10/20/71) | (S&D) | Park Avenue | Park City |
| Summit County Courthouse and Jail | (1/10/73) | (S&N) | Main Street | Coalville |
| *Summit Stake Tabernacle (listed in the Review Committee minutes as "Coalville Tabernacle") | (3/5/70) | (S&D) | | Coalville |
| Union Pacific Railroad Station | (7/26/72) | (S&N ⁸) | 102 Pacific Avenue | Park City |
| Warr, Alma Store | (4/21/76) | (S) | | Kamas |
| Washington, George, School | (1/12/72) | (S&N) | 541 Park Avenue | Park City |

TOOELE COUNTY

| | | | | |
|--------------------------------------|-----------|-------|-----------------------|--------------|
| Benson, E.T., Mill | (6/3/70) | (S&N) | Off State Highway 138 | Mills Juncti |
| Davis, David E., House | (12/5/73) | (S) | Off Utah Highway 199 | Clover |
| Iosepa Settlement "Cemetery" | (4/8/70) | (S&N) | Skull Valley | County |
| *Ophir Town Hall and Fire Station | (3/5/70) | (S&N) | 43 South Main | Ophir |
| Pony Express Trail | (5/5/71) | (S) | | |
| Sharp, John, House | (12/5/73) | (S&N) | Off Utah 36 | Vernon |

UINTAH COUNTY

| | | | | |
|--------------------------------------|-----------|-------|---------------------------|----------|
| Bank of Vernal (Parcel Post Bank) | (1/10/73) | (S) | 3 West Main | Vernal |
| Caldwell Village | (6/14/72) | (S&N) | Near Lapoint | County |
| Holy Spirit Episcopal Church | (8/4/71) | (S) | | Randlett |
| Old Ashley Post Office | (1/10/73) | (S) | | Ashley |
| Uintah (Vernal) Tabernacle | (5/30/73) | (S&N) | NE corner 500 W. & 200 S. | Vernal |

UTAH COUNTY

| | | | | |
|---|-----------------------------|-------|--------------------------------------|-------------|
| Alpine Meetinghouse | (6/2/71) | (S) | Main Street | Alpine |
| American Fork Mining District | (1/12/72) | (S) | American Fork Canyon | County |
| (note: it was moved and accepted that, within this district, the individual sites of Forest City, Deer Creek, Grave of George Tyng, Railway Grade, Toll Gate and Dance Hall Cave be listed individually on the State Register as well.) | | | | |
| Ashton/Driggs House | (6/3/70) | (S&N) | | Pleasant Gr |
| (listed in the Review Committee as "Driggs, Benjamin, House) | | | | |
| Beebe, Angus George & Martha, House | (3/2/77) | (S&N) | 489 West 100 South | Provo |
| Brown, George M., House | (3/26/75) | (S&N) | 315 East Center | Provo |
| Camp Floyd | (6/2/71) | (S&N) | 1/2 mile So. of Fairfield | Fairfield |
| Clark, George, House | (12/5/73) | (S) | 50 West Center | Pleasant Gr |
| Cutler, Thomas R., Mansion | (2/6/74) | (S&N) | 150 East State | Lehi |
| Dancehall Cave | (1/12/72) | (S) | American Fork Canyon | County |
| Deer Creek Townsite | (1/12/72) | (S) | American Fork Canyon | County |
| Driggs, Benjamin, House | (see "Ashton/Driggs House") | | | |
| Eggertsen, Simon Peter, Sr., House | (2/6/74) | (S&N) | 390 South 500 West | Provo |
| Fairbanks, John, House | (1/12/72) | (S) | moved to Pioneer Trail State Park | Payson |
| *Fairfield School (gym demolished) | (3/5/70) | (S&N) | 59 North Church Street | Fairfield |
| Fairfield Stagecoach Inn | (see "Stagecoach Inn") | | | |
| Forest City Townsite | (1/12/72) | (S) | American Fork Canyon | County |
| Fort Rawlins | (6/2/71) | (S) | 900 North 1550 West | Provo |
| *Fugal Blacksmith Shop | (3/5/70) | (S) | 650 North 400 East | Pleas Grov |
| Hamberg, Dr. Julius, Castle | (4/30/75) | (S&D) | 185 South 400 West | Provo |
| Hines, Kitty, Mansion | (3/26/75) | (S&N) | 125 South 400 West | Provo |
| Houtz, Jacob, House | (9/25/74) | (S&D) | North Main | Springvill |

UTAH COUNTY (continued)

12.

| | | | | |
|--|-----------|-------|----------------------------|------------------|
| Kelsey, William H., House | (7/16/75) | (S) | 366 West 300 South | Springville |
| Knight Block | (8/20/75) | (S&N) | 1-13 East Center | Provo |
| Knight, Jesse, House | (4/30/75) | (S&N) | 185 East Center | Provo |
| Knight-Mangum Mansion | (1/12/72) | (S&N) | 318 East and Center | Provo |
| Lakeview Tithing Office & Bunnell Creamery | (3/26/75) | (S&N) | off state highway 114 | Lakeview |
| (listed in the Review Committee minutes as "Lakeview Creamery") | | | | |
| Maeser School | (3/26/75) | (S&N) | 150 South 300 East | Provo |
| Moyle, John Rowe, Tower and House | (8/4/71) | (S) | 800 N & 600 E on Grove Dr. | Alpine County |
| Narrow Gauge Railway Grade | (1/12/72) | (S) | American Fork Canyon | |
| Nebo Stake Tabernacle (see Payson "Nebo Stake" Tabernacle) | | | | |
| Nunn Power Plant | (7/8/70) | (S&N) | off U.S. 189 | Provo Canyon |
| Olmsted Power Plant and School | (7/8/70) | (S&N) | off U.S. 189 | Provo Canyon |
| Payson Presbyterian Church | (5/30/73) | (S&N) | 160 South Main | Payson |
| Payson (Nebo Stake) Tabernacle | (5/30/73) | (S&D) | | Payson |
| Peteetneet School | (8/20/75) | (S) | 50 North 500 East | Payson |
| Philander, Perry, House | (3/26/75) | (S&D) | 670 West 20 North | Provo |
| Pleasant Grove Schoolhouse | (12/5/73) | (S&N) | 77 South 100 East | Pleasant Gr |
| Pleasant Grove Town Hall | (12/5/73) | (S&N) | 107 South 100 East | Pleasant Gr |
| Provo Sixth Ward | (5/30/73) | (S&D) | 240 West 300 South | Provo |
| Provo Tabernacle | (4/7/71) | (S&N) | 100 South University | Provo |
| Roberts, William D., House | (1/12/77) | (S&N) | 212 North 500 West | Provo |
| Smoot, Reed, House | (4/7/71) | (S&N) | 183 East 100 South | Provo |
| Stagecoach Inn | (1/7/70) | (S) | Main Street | Fairfield |
| (listed in the Review Committee minutes as "Fairfield Stagecoach Inn") | | | | |
| Startup Candy Factory | (7/16/75) | (S&N) | 534 South 100 West | Provo |
| Taylor, George Jr., House | (3/26/75) | (S&N) | 187 North 400 West | Provo |
| Toll Gate Site | (1/12/72) | (S&D) | Mouth of Am. Fork Canyon | County |
| Tyng, George, Grave of | (1/12/72) | (S) | Miller Hill | Am. Fork Cr |
| Winn, William H., House | (3/17/76) | (S) | 192 North 200 West | Lehi |

WASATCH COUNTY

| | | | | |
|--------------------------------------|-----------|-------|-----------------------|------------|
| A. Hatch & Co. Buildings | (5/29/74) | (S&D) | 10 North Main | Heber City |
| Hatch, Abram, House | (9/27/72) | (S&N) | 81 East Center Street | Heber City |
| North Heber Light and Power Plant | (1/10/73) | (S&D) | North of Heber City | County |
| Watkins-Coleman House | (1/7/70) | (S&N) | 5 East Main | Midway |

WASHINGTON COUNTY

| | | | | |
|---|------------|-------|--------------------|------------|
| Bloomington Pictographs | (5/29/74) | (S) | | County |
| Covington, Robert D., Home | (1/6/71) | (S&N) | 200 North 200 East | Washington |
| Deseret Telegraph & Post Office | (4/8/70) | (S&N) | State Route 15 | Rockville |
| Fort Harmony--Peter's Leap Historic District | (11/10/70) | (S&N) | | County |

WASHINGTON COUNTY (continued)

13.

| | | | | |
|--|---|-------|----------------------------|-------------|
| Grafton Church | (5/30/73) | (S) | | Grafton |
| Hamblin, Jacob, House | (1/7/70) | (S&N) | | Santa Clara |
| Hurricane Canal | (10/20/71) | (S&N) | btwn Virgin/Hurricane Riv. | Hurricane |
| Judd, Thomas, House | (5/5/71) | (S&N) | 269 South 200 East | St. George |
| McDonald, Alexander F., Hs. | (2/9/72) | (S) | | Middleton |
| Mountain Meadows Historic Site | (4/7/71) | (S&N) | Off Utah 18 | County |
| Nielson, Peter, House | (12/5/73) | (S&D) | 170 South 100 East | Washington |
| Peter's Leap Historic District: | (see "Fort Harmony—Peter's Leap H. D.") | | | |
| Pine Valley Chapel and Tithing Office | (1/7/70) | | | |
| | (4/8/70) | (S&N) | Main & Pine Vallely Street | Pine Valley |
| St. George L.D.S. Tabernacle | (1/7/70) | (S&N) | Tabernacle & Main | St. George |
| St. George Temple | (2/3/71) | (S&N) | 200-300 E & 400-500 S | St. George |
| Sterling House | (5/5/71) | (S) | | Leeds |
| Toquerville Chapel/Relief Soc. Hall | (3/26/75) | (S) | Toquerville Boulevard | Toquerville |
| Virgin River Drainage Archaeology Area | (6/14/72) | (S) | | County |
| Washington Ward Chapel | (2/3/71) | (S&D) | Fronts Main on NW corner | Washington |
| Washington Cotton Factory | (1/7/70) | (S&N) | Highway 91-frontage rd W. | Washington |
| Washington County Courthouse | (4/8/70) | (S&N) | 85 East 100 North | St. George |
| Wells Fargo and Company Express Building | (1/7/70) | (S&N) | Main Street | Silver Reef |
| Young, Brigham, Winter House & Office | (1/7/70) | (S&N) | SE cnr of 200 No. 100 W. | St. George |

WAYNE COUNTY

| | | | | |
|-----------------------------------|----------|-------|--------------------------|----------|
| Nielson, Hans Peter, Gristmill | (4/7/71) | (S&N) | Bicknell vicinity | County |
| Fruita Schoolhouse | (6/3/70) | (S&N) | North side of Highway 24 | Fruita |
| Thurber Relief Society Hall | (6/2/71) | (S) | | Bicknell |
| Wayne Stake Tabernacle/Loa Chapel | (6/3/70) | (S) | 100 West 100 North | Loa |

WEBER COUNTY

| | | | | |
|--|-----------|-------|-----------------------|-------------|
| Barker, Sr., Henry, House | (4/6/77) | (S) | 2387 Fruitland | North Ogden |
| Becker Brewery | (10/3/73) | (S&D) | 2000 Lincoln Avenue | Ogden |
| Becksted, Wesley, House (Valley House) | (12/1/71) | (S) | 7318 East 200 South | Huntsville |
| Browning, John Moses, House | (6/2/71) | (S&N) | 505 27th Street | Ogden |
| Eccles, Bertha Community Art Center | (6/3/70) | (S&N) | 2580 Jefferson Avenue | Ogden |
| Eden Church | (5/30/73) | (S) | | Eden |
| Episcopal Church of the Good Shepherd | (6/3/70) | (S&N) | 2374 Grant Avenue | Ogden |
| Goodyear, Miles, Cabin | (1/7/70) | (S&N) | Tabernacle Square | Ogden |
| Harvey, William Hope "Coin," House | (9/2/70) | (S) | 2671 Jefferson Avenue | Ogden |

WEBER COUNTY (continued)

14.

| | | | | |
|---|------------|-------|-----------------------|------------|
| Hastings Cutoff Trail | (6/2/71) | (S) | | County |
| Heywood-Guthrie, House | (1/12/72) | (S) | 675 25th Street | Ogden |
| Knudson Home | (10/3/73) | (S) | | |
| (no other information available) | | | | |
| McKay, Angus, House | (4/7/71) | (S) | 141 South 7600 East | Huntsville |
| McKay, David O., Summer House | (4/7/71) | (S) | 155 South 7600 East | Huntsville |
| Ogden Deaf Branch | (6/11/75) | (S) | 740 21st Street | Ogden |
| Ogden Pioneer Tabernacle | (4/7/71) | (S&D) | Tabernacle Square | Ogden |
| Ogden Relief Society Stake Mtg. Hall | (5/30/73) | (S) | 2148 Grant | Ogden |
| Ogden Union Depot | (4/7/71) | (S&N) | 25th and Wall Avenue | Ogden |
| Pioneer Electric Power Co. | (5/5/71) | (S) | 1218 12th Street | Ogden |
| Reed Terrace Apartments | (12/1/71) | (S&D) | 2343 Adams | Ogden |
| Robinson Home/Carriage Hs. | (1/12/72) | (S) | 1549 24th Street | Ogden |
| Scoville Broom Factory | (5/5/71) | (S) | 2441 Grant Avenue | Ogden |
| Smyth, Dennis A., House | (12/9/70) | (S&N) | 635 25th Street | Ogden |
| St. Joseph's Catholic Church | (4/7/71) | (S) | 514 24th Street | Ogden |
| Summerhill Foundry and Stoker Man Co. | (12/1/71/) | (S) | 2139 Jefferson Avenue | Ogden |
| Valley House (see "Beckstead, Wesley, House") | | | | |

MULTICOUNTY

25 Indian Rock Art Sites throughout the State (locations unspecified) (2/3/71)(S)

This list was compiled from the minutes of the Historic and Cultural Sites Review Committee meetings and the files of the Utah State Historic Preservation Office.

Key to Status Codes

(S) State Register

(D) demolished

(L) National Historic Landmark

(N) National Register

(Nx) Historic Districts on the National Register

¹Willard Historic District

²Logan Historic District

³South Temple Historic District

⁴Avenues Historic District

⁵Capitol Hill Historic District

⁶City Creek Canyon Historic District

⁷Spring City Historic District

⁸Park City Historic District

⁹Provo Historic District

* denotes a site nominated to the State Register on March 5, 1970, the list of which was not included in the Review Committee minutes.

**denotes a site which was not included in the Review Committee minutes for the date given, but which has a congratulatory letter in its file stating that it is on the State Register.

SITES KNOWN TO BE APPROVED ON 3/5/70

(Note: a list of sites was not included in the Review Committee minutes for this date. This list was compiled from congratulatory letters bearing this date and kept in the individual files.)

BOX ELDER:

| | | |
|---|------------------------------|--------------|
| *Brigham City Mercantile & Mfg Tannery | | Brigham City |
| *Corinne Methodist Episcopal Church | Corner of Colorado & 6th So. | Corinne |

CACHE:

| | | |
|---------------------------------|---------------------|-------|
| *Union Pacific Railroad Station | 600 West and Center | Logan |
|---------------------------------|---------------------|-------|

JUAB:

| | | |
|-------------------------------|--|-------|
| *Whitmore, George C., Mansion | | Nephi |
|-------------------------------|--|-------|

SALT LAKE:

| | | |
|---|--|------------|
| *Council Hall | Capitol Hill | SLC |
| *Fisher, Albert E., Carriage House | rear 1206 West 2nd South | SLC |
| *Meyer, Frederick A.E., House | 929 East 200 South | SLC |
| *Old Clock (Zions First National Bank) | SW corner 100 S. & Main 233 Canyon Road | SLC SLC |
| *Ottinger Hall | Capitol Hill District | SLC |
| *Platts, John, House | | SLC |
| *Twenty-First Ward | | SLC |
| *Utah Commercial Savings Bank | 22 East 100 South | SLC |

SUMMIT:

| | | |
|--|---------------------|------------------------|
| *Coalville Tabernacle (see "Summit Stake Tabernacle") | | |
| *Echo Church-School and Cemetery (added to the site 7/8/70) | head of Temple Lane | Echo |
| *St Mary's of Assumption Catholic Sch. | 121 Park Avenue | Park City Coalville |
| *Summit Stake Tabernacle (listed in the Review Committee minutes as "Coalville Tabernacle") | | |

TOOELE:

| | | |
|-----------------------------------|---------------|-------|
| *Ophir Town Hall and Fire Station | 43 South Main | Ophir |
|-----------------------------------|---------------|-------|

UTAH:

| | | |
|------------------------------------|------------------------|-------------|
| *Fairfield School (gym demolished) | 59 North Church Street | Fairfield |
| *Fugal Blacksmith Shop | 650 North 400 East | Pleas Grove |

This list was compiled from the minutes of the Historic and Cultural Sites Review Committee meetings and the files of the Utah State Historic Preservation Office.

Key to Status Codes

(S) State Register

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SECTION 14

Attachment F – Record Keeping and Reporting Forms



SIGNIFICANT SPILL REPORT

Date of Occurrence: _____

Discovered by Whom: _____

Location: _____

Material Type & Volume: _____

Cause of Spill: _____

Corrective Action Taken: _____

Agencies/Persons Contacted: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature

NON-STORM WATER INSPECTION REPORT

Date of Inspection: _____ Time: _____

Inspected by (printed name): _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Description of type of inspection (check those that apply):

visual observation dye tests smoke tests TV line survey
analysis of accurate schematics sampling/monitoring

Observations/Results: _____

Are there any non-storm water discharges? yes no

Is the discharge authorized under this permit? yes no

Is the discharge covered under another National Pollutant Discharge Elimination System (NPDES) permit? yes no

Are significant structural changes required to eliminate the discharge? yes no

EMPLOYEE TRAINING

Date of Session: _____

Time: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Trainer : _____
(printed)

(Signature)

Attendees (names, printed):

Signature:

Topics Covered: _____

SECTION 15



International Erosion Control Association

3001 S Lincoln Ave., Suite A, Steamboat Springs, Colorado 80487 ~ 970-879-3010 ~ www.ierca.org
EC07 ~ Reno, Nevada

CERTIFICATE OF COMPLETION

May it be known by all who read this that:

Jennie Gallegos

has successfully completed

**How to Write & Implement a SWPPP
to Meet NPDES Requirements**

and has earned 0.6 Continuing Education Units or 6.0 Professional Development Hours

Presented this 13th day of February, 2007

Don Husted
Executive Director

Doug Kinison
President

May be applied to the following "IECA Training" Track, Construction Site Storm Water Management



Utah Department of Transportation
Certificate of Training

Jennie Gallegos

has satisfactorily completed the

Environmental Control Supervisor Training

Location: Salt Lake City, Utah

Hours of Instruction: 8

Date: August 11, 2005

Terry Johnson

Instructor

Jerry Chaney

Coordinator



International Erosion Control Association

3001 S Lincoln Ave., Suite A, Steamboat Springs, Colorado 80487 ~ 970-879-3010 ~ www.ieca.org
EC08 — Orlando, Florida

C E R T I F I C A T E O F C O M P L E T I O N

May it be known by all who read this that:

Alfredo Gallegos

has successfully completed

Certified Inspector of Sediment and Erosion Control (CISEC) Training Modules

and has earned .6 Continuing Education Units or 6.0 Professional Development Hours

Presented this 21st day of February, 2008

Annell Ash

Executive Director

Francis J. Hovels

President

May be applied to the following "IECA Trained" Tracks: Inspector in Training



International Erosion Control Association

3001 S. Lincoln Ave., Suite A, Steamboat Springs, Colorado 80487 ~ 970-879-3010 ~ www.ierca.org
EC07 ~ Reno, Nevada

CERTIFICATE OF COMPLETION

May it be known by all who read this that:

Alfredo Gallegos

has successfully completed

Effective Inspection Programs for Construction Site Runoff Control

and has earned 0.6 Continuing Education Units or 6.0 Professional Development Hours

Presented this 13th day of February, 2007

Don Heston
Executive Director

Doug Winters
President

May be applied to the following "IECA Trained" Track: Inspector in Training



Utah Department of Transportation
Certificate of Training

Alfredo Gallegos

has satisfactorily completed the

Environmental Control Supervisor Training

Location: Salt Lake City, Utah

Hours of Instruction: 8

Date: April 6, 2006

Terry Johnson

Instructor

Jerry Chaney

Coordinator



**STANDARD OPERATING
PROCEDURES
FOR:**

Salt Lake City Parks and Public Lands Division

Created: August 2011

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BUILDINGS – Dumpsters/Garbage Storage

1. Preparation.
 - a. Train employees on proper trash disposal.
 - b. Locate dumpsters and trash cans in convenient, easily observable areas.
 - c. Provide properly-labeled recycling bins to reduce the amount of garbage disposed.
 - d. Install berms, curbing, or vegetation strips around storage areas to control water entering/leaving storage areas.
 - e. Whenever possible store garbage containers beneath a covered structure or inside to prevent contact with storm water.
2. Process.
 - a. Inspect garbage bins for leaks regularly, and have repairs made immediately by responsible party.
 - b. Request/use dumpsters, and trash cans with lids and without drain holes.
 - c. Locate dumpsters on a flat, hard surface that does not slope or drain directly into the storm drain system.
3. Clean-up.
 - a. Keep areas around dumpsters clean of all garbage.
 - b. Have garbage bins emptied regularly to keep from overflowing.
 - c. Wash out bins or dumpsters as needed to keep odors from becoming a problem.
4. Documentation
 - a. Document training of employees

BUILDINGS – Parking Lot Maintenance

1. Preparation.
 - a. Conduct regular employee training to reinforce proper housekeeping.
 - b. Restrict parking in areas to be swept prior to and during sweeping using regulations as necessary.
 - c. Perform regular maintenance and services in accordance with the recommended vehicle maintenance schedule on sweepers to increase and maintain efficiency.
2. Process.
 - a. Sweep parking areas, as needed, or as directed by the city's responsible official.
 - b. Hand sweep sections of gutter if soil and debris accumulate.
 - c. Pick-up litter as required to keep parking areas clean and orderly.
3. Clean-up.
 - a. Dispose of sweepings properly (appropriate solid waste facility).
 - b. Street sweepers to be cleaned out in a manner as instructed by the manufacturer and in a location that swept materials cannot be introduced into a stormdrain.
 - c. Swept materials will not be stored in locations where storm water could transport fines into the stormdrain system.
4. Documentation.
 - a. Keep accurate logs to track swept parking areas and approximate quantities.
 - b. Document training of employees.

IDDE - Call-in Inspections

1. Preparation
 - a. Have a system in place to receive phone calls and collect information regarding suspected illicit discharges.
2. Process
 - a. Use the Incident Tracking Sheet to collect the appropriate information from the caller. Then, transfer the Incident Tracking Sheet to the proper authority (ie. department head, stormwater specialist, construction inspector, code enforcement officer, or other assigned personnel).
 - b. Promptly investigate reported incidents.
 - c. If an illicit discharge of unknown source is confirmed, follow the procedure of SOP IDDE - Tracing Illicit Discharges.
 - d. If an illicit discharge known source is confirmed, follow the procedure of SOP IDDE - Removing Illicit Discharges.
3. Clean up
 - a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.
4. Documentation
 - a. File all completed forms (ie. incident tracking, catch basins cleaning, storm drain cleaning).
 - b. Document any further action taken.
 - c. Review incidents reported by citizens on an annual basis to look for patterns of illicit discharges and to evaluate the call-in inspection program.

IDDE - Opportunistic Illicit Discharge Observation

1. Preparation
 - a. Be alert for potential illicit discharges to the municipal storm water system while going about normal work activities.
2. Process
 - a. Call the appropriate authority (ie. department head, stormwater specialist, construction inspector, code enforcement officer or a supervisor) if you see evidence of an illicit discharge.
 - b. Assess the general area of the illicit discharge to see if you can identify its source.
 - c. Whenever possible, take photographs of the suspected illicit discharge.
 - d. Responding stormwater department personnel or code enforcement officer will complete the following:
 1. Use the IDDE Incident Tracking Sheet to document observations.
 2. Obtain sample for visual observation and complete an Outfall Inspection Form, if applicable.
 3. Follow the procedure of SOP IDDE - Tracing Illicit Discharges.
3. Clean-up
 - a. Clean catch basin, clean storm drain, or initiate spill response, as needed. Follow relevant SOPs.
4. Documentation
 - a. File all completed forms (ie. Incident Tracking Form, Outfall Inspection Form, Catch Basin Cleaning Form, and Storm Drain Cleaning Log).
 - b. Document any further action taken.

IDDE - Outfall Inspections

1. Preparation:
 - a. Know the past and present weather conditions. Conduct inspections during dry weather periods.
 - b. Gather all necessary equipment including: tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).
 - c. Obtain maps showing outfall locations and identifiers.
 - d. Obtain outfall description and observations from previous inspections, so the outfall can be accurately identified and observations compared.

2. Process
 - a. Perform an inspection of each outfall at least once per year. Whenever, possible use the same personnel for consistency in observations.
 - b. Identify each outfall with a consistent and unique identifier. For example "Howard Slough-#13". Use maps and previous inspection reports to confirm the outfall identity and location.
 - c. If dry weather flow is present at the outfall, then document and evaluate the discharge by completing the following steps:
 1. Collect field samples for visual observations in a clean, clear container and in a manner that avoids stirring up sediment that might distort the observation.
 2. Characterize and record observations on basic sensory and physical indicators (e.g., outfall condition, flow, odor, color, oil sheen) on the Outfall Inspection Form.
 3. Compare observations to previous inspections.
 4. If the flow does not appear to be an obvious illicit discharge (e.g., flow is clear, odorless, etc.), attempt to identify the source of the flow (groundwater, intermittent stream, etc.)
 - d. If an illicit discharge (such as raw sewage, petroleum products, paint, etc.) is encountered or suspected, follow the procedure of SOP IDDE - Tracing Illicit Discharges.

3. Cleanup - as necessary

4. Documentation
 - a. File completed outfall inspection forms.
 - b. Update maps if new outfalls are observed and inspected.

IDDE - Removing Illicit Discharges

1. Preparation
 - a. Obtain available property ownership information for the source of the illicit discharge.
2. Process
 - a. Determine who is financially responsible; and follow associated procedures as given below.

For Private Property Owner:
Contact Owner,
Issue Notice of Violation for violations of the municipal ordinance, and
Determine schedule for removal.

For Municipal Facility:
Notify appropriate municipal authority or department head,
Schedule removal, and
Remove illicit connection.
 - b. Suspend access to storm drain if threats of serious physical harm to humans or the environment are possible.
 - c. Direct responsible party to initiate repairs/corrections/cleanup. Coordinate with enforcement official for escalating penalties in accordance with the municipal ordinance.
 - d. Repair/correct cause of discharge if municipality is responsible. Schedule the work through the appropriate municipal authority or department head..
 - e. Seek technical assistance from the Weber-Morgan Health Department or Utah Department of Water Quality, if needed.
3. Clean up
 - a. Confirm illicit discharge is removed or eliminated by follow-up inspection.
4. Documentation
 - a. Maintain records of notice of violation and penalties.
 - b. Document repairs, corrections, and any other actions required.

IDDE - Tracing Illicit Discharges

1. Preparation
 - a. Review / consider information collected when illicit discharge was initially identified and document using Incident Tracking Form or Outfall Inspection Form.
 - b. Obtain storm drain mapping for the area of the reported illicit discharge.
 - c. Gather all necessary equipment including: tape measure, clear container, clipboard with necessary forms, flashlight, and camera (optional).
2. Process
 - a. Survey the general area / surrounding properties to identify potential sources of the illicit discharge as a first step.
 - b. Trace illicit discharges using visual inspections of upstream points as a second step. Use available mapping to identify tributary pipes, catch basins, etc.
 - c. If the source of the illicit discharge cannot be determined by a survey of the area or observation of the storm drain system, then consider the following additional steps:
 1. Use weirs, sandbags, dams, or optical brightener monitoring traps to collect or pool intermittent discharges during dry weather.
 2. Smoke test or televise the storm drain system to trace high priority, difficult to detect illicit discharges.
 3. Dye test individual discharge points within suspected buildings.
 4. Consider collecting bacterial samples of flowing discharges to confirm/refute illicit discharge.
 - d. If the source is located, follow SOP IDDE - Removing Illicit Discharges.
 - e. If the source cannot be found, add the location to a future inspection program.
3. Clean up
 - a. Clean catch basin, clean storm drain, or initiate spill response, as applicable. Follow relevant SOPs.
4. Documentation
 - a. Document tracing results for future reference.

PARKS – Chemical Application Pesticides, Herbicides, Fertilizers

1. Preparation
 - a. Make sure your state Chemical Handling Certification is complete and up-to-date before handling any chemicals.
 - b. Calibrate fertilizer and pesticide application equipment to avoid excessive application.
 - c. Use pesticides only if there is an actual pest problem.
 - d. Time and apply the application of fertilizers, herbicides or pesticides to coincide with the manufacturer's recommendation for best results ("Read the Label").
 - e. Know the weather conditions. Do not use pesticides if rain is expected. Apply pesticides only when wind speeds are low (less than 5 mph).

2. Process
 - a. Always follow the manufacturer's recommendations for mixing, application and disposal. ("Read the Label").
 - b. Do not mix or prepare pesticides for application near storm drains, preferably mix inside a protected area with impervious secondary containment (preferably indoors) so that spills or leaks will not contact soils.
 - c. Employ techniques to minimize off-target application (e.g. spray drift, over broadcasting,) of pesticides and fertilizers.

3. Clean-up
 - a. Sweep pavements or sidewalks where fertilizers or other solid chemicals have fallen, back onto grassy areas before applying irrigation water.
 - b. Triple rinse containers, and use rinse water as product.
 - c. Always follow all federal and state regulations governing use, storage and disposal of fertilizers, herbicides or pesticides and their containers. ("Read the Label")
 - d. Use spill kits

4. Documentation
 - a. Keep copies of MSDS sheets for all pesticides, fertilizers and other hazardous products used.
 - b. Record fertilizing and pesticide application activities, including date, individual who did the application, amount of product used and approximate area covered.

PARKS – Cleaning Equipment

1. Preparation
 - a. Review process with all Parks employees.

2. Process
 - a. Wash equipment in approved wash station.

3. Clean-up
 - a. Dispose of towels in proper trash receptacle.
 - b. Sweep floor and dispose of debris.

PARKS – Mowing and Trimming

1. Preparation
 - a. Process overview with all employees
 - b. Check the oil and fuel levels of the mowers and other equipment; fill if needed.

2. Process
 - a. Put on eye and hearing protection
 - b. Mow and trim the lawn
 - c. Sweep or blow clippings to grass areas

3. Clean-up
 - a. Mowers are to be scraped and brushed at shop – dry spoils are dry swept and disposed of
 - b. Wash equipment in approved wash station

PARKS – Open Space Management

1. Preparation
 - a. Provide a regular observation and maintenance of parks, golf courses, and other public open spaces.

2. Process
 - a. Ensure that any storm drain or drainage system components on the property are properly maintained.
 - b. Avoid placing bark mulch (or other floatable landscaping materials) in stormwater detention areas or other areas where stormwater runoff can carry the mulch into the storm drainage system.
 - c. Follow all SOPs related to irrigation, mowing, landscaping, and pet waste management.

3. Clean Up
 - a. Keep all outdoor work areas neat and tidy. Clean by sweeping instead of washing whenever possible. If areas must be washed, ensure that wash water will enter a landscaped area rather than the storm drain. Do not use soap for outdoor washing.
 - b. Pick up trash on a regular basis.

4. Documentation
 - a. Document any observed deficiencies for correction or repair.

PARKS – Pet Waste

1. Preparation
 - a. Adopt and enforce ordinances that require pet owners to clean up pet wastes and use leashes in public areas. If public off-leash areas are designated, make sure they are clearly defined.
 - b. Whenever practical and cost effective, install dispensers for pet waste bags and provide disposal containers at locations such as trail heads or parks where pet waste has been a problem. Provide signs with instructions for proper cleanup and disposal.
2. Clean up
 - a. Provide temporary storage in a covered waste container, and dispose of properly. Preferred method of disposal is at a solid waste disposal facility.
3. Documentation
 - a. Document problem areas for possible increased enforcement and/or public education signs.

PARKS – Planting Vegetation (Starters)

1. Preparation
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Dial 811 or 1-800-662-4111
 - c. Decide where any spoils will be taken.

2. Process
 - a. Dig holes; place spoils on a tarp near the hole where they may easily be placed back around roots. Avoid placing spoils in gutter.
 - b. Bring each plant near the edge of the hole dug for it.
 - c. Check the depth of the hole, and adjust the depth if necessary. The depth of the hole for a tree should be as deep as the root ball, so that the top of the root ball is level with the top of the hole.
 - d. Carefully remove pot or burlap.
 - e. Place the plant in the hole.
 - f. Backfill the hole with existing spoils, compost, and a litter fertilizer if desired. Do not use excessive amendments.
 - g. Water the plant.
 - h. Stake the plant, if necessary, to stabilize it.

3. Clean-up
 - a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.
 - b. Sweep dirt from surrounding pavement(s) into the planter area
 - c. Transport spoils to their designated fill or disposal area.

PARKS – Planting Vegetation (Seeds)

1. Preparation
 - a. Call the Blue Stakes Center of Utah at least 2 working days before any digging will be done, to reveal the location of any underground utilities.
 - b. Dial 811 or 1-800-662-4111
 - c. Decide on the application rate, method, water source, and ensure adequate materials are on hand.
 - d. Grade and prepare the soil to receive the seed. Place any extra soil in a convenient location to collect.

2. Process
 - a. Place the seed and any cover using the pre-determined application method (and rate).

3. Clean-up
 - a. Move any extra spoils into truck or trailer. Place the spoils on a tarp if there is a likelihood that some of the dirt would be lost through openings in the bed.
 - b. Sweep dirt, seed, and any cover material from surrounding pavement(s) into the planter area
 - c. Transport spoils to their designated fill or disposal area.

PARKS – Transporting Equipment

1. Preparation
 - a. Determine equipment needed for transport and method (trailer, truck bed) needed to transport equipment.
 - b. Conduct pre- trip inspection of equipment
2. Process
 - a. Load and secure equipment on trailer or truck
 - b. Load and secure fuel containers for equipment usage
3. Clean-up
 - a. Off load equipment
 - b. Store equipment and trailer in proper locate on
 - c. Conduct post-trip inspection of equipment
 - d. Wash equipment, if needed, according to the SOP for Cleaning Equipment SOP
4. Documentation
 - a. Pre-trip and post trip inspection report

VEHICLES – Fueling

1. Preparation
 - a. Train employees on proper fueling methods and spill cleanup techniques.
 - b. Install a canopy or roof over aboveground storage tanks and fuel transfer areas.
 - c. Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on mobile fueling vehicles and shall be disposed of properly after use.
2. Process
 - a. Shut off the engine.
 - b. Ensure that the fuel is the proper type of fuel for the vehicle.
 - c. Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut off to prevent overfill.
 - d. Fuel vehicle carefully to minimize drips to the ground.
 - e. Fuel tanks shall not be 'topped off'.
 - f. Mobile fueling shall be minimized. Whenever practical, vehicles and equipment shall be transported to the designated fueling area in the Facilities area.
 - g. When fueling small equipment from portable containers, fuel in an area away from storm drains and water bodies.
3. Clean Up
 - a. Immediately clean up spills using dry absorbent (e.g., kitty litter, sawdust, etc.) sweep up absorbent material and properly dispose of contaminated clean up materials.
 - b. Large spills shall be contained as best as possible and the HazMat team should be notified ASAP.
4. Records
 - a. Comply with underground storage tank records and monitoring requirements.
 - b. Document training of employees.

VEHICLES – Vehicle and Equipment Storage

1. Preparation
 - a. Inspect parking areas for stains/leaks on a regular basis.
 - b. Provide drip pans or adsorbents for leaking vehicles.
2. Process
 - a. Whenever possible, store vehicles inside where floor drains have been connected to sanitary sewer system.
 - b. When inside storage is not available, Vehicles and equipment will be parked in the approved designated areas.
 - c. Maintain vehicles to prevent leaks as much as possible.
 - d. Address any known leaks or drips as soon as possible. When a leak is detected a drip pan will be placed under the leaking vehicle to collect the drip.
 - e. The shop will provide a labeled location to empty and store drip pans.
 - f. If any leaks are discovered, a drip pan will be used to collect the fluids and vehicle will be scheduled for repairs.
 - g. Clean up all spills using dry methods.
 - h. Never store leaking vehicles over a storm drain.
3. Clean Up
 - a. Any leaks that are spilled on the asphalt will be cleaned up with dry absorbent; the dry absorbent will be swept up and disposed of in the garbage.
 - b. The paved surfaces around the building will be swept every two weeks, weather permitting.

VEHICLES – Washing

1. Preparation
 - a. Provide wash areas for small vehicles inside the maintenance building that has a drain system which is attached to the sanitary sewer system.
 - b. Provide wash areas for large vehicles on an approved outside wash pad that has a drain system which is attached to the sanitary sewer system.
 - c. No vehicle washing will be done where the drain system is connected to the storm sewer system.
2. Process
 - a. Minimize water and soap use when washing vehicles inside the shop building.
 - b. Soap should not be used when washing vehicles outside the shop building. Water Only.
 - c. Use hoses with automatic shut off nozzles to minimize water usage.
 - d. When washing outside the building, it is the operators' responsibility to make sure all wash water is contained on the wash pad and does not have access to the storm drain.
 - e. Never wash vehicles over or a storm drain.
3. Clean Up
 - a. Sweep wash areas after every washing to collect what solids can be collected to prevent them from washing down the drain system.
 - b. Clean solids from the settling pits on an as needed basis.

Pesticide Applications

1. *Handwritten notes or diagrams, mostly illegible.*

2.

Parking Lots

PARKING LOTS

| <u>Site</u> | <u>Class</u> | <u>Area</u> |
|---------------------------------|---------------------|--------------------|
| Almond Park | 1 | 0.0793 |
| Silver Park | 2 | 0.0790 |
| Steiner | 1 | 1.8613 |
| Steiner | 1 | 0.8330 |
| Finch Lane | 1 | 0.2846 |
| Memory Grove Lower | 1 | 0.9547 |
| Memory Grove Upper | 1 | 1.9565 |
| Liberty Park | 2 | 1.5272 |
| Liberty Park | 2 | 0.6666 |
| Liberty Park | 2 | 0.5799 |
| Herman Franks | 2 | 0.4539 |
| Richmond | 2 | 0.3350 |
| Jordan Park | 2 | 0.1861 |
| Jordan Park | 2 | 2.5426 |
| 9th South River Park | 3 | 0.1998 |
| Poplar Grove Park | 3 | 0.3217 |
| Sherwood Park | 3 | 0.3414 |
| Sherwood Park | 3 | 0.3795 |
| Old Childrens Museum | 3 | 0.6103 |
| Raging Waters Fire Lane | 3 | 0.5164 |
| Parks Shop | 1 | 1.1768 |
| Parks Shop | 1 | 0.1862 |
| Parks Shop | 1 | 0.2788 |
| Parks Shop | 1 | 0.4412 |
| Pioneer Precinct | 1 | 0.8799 |
| Sorensen Unity Center | 1 | 0.6997 |
| Sorensen Unity Center | 1 | 0.9604 |
| Sugar House Boys and Girls Club | 1 | 1.4235 |
| Fairmont Park | 2 | 0.7928 |
| Swimming Center | 1 | 0.3325 |
| Rotary Glen | 2 | 0.5842 |
| Sunnyside Park | 3 | 0.9798 |
| Sunnyside Park | 3 | 0.4144 |
| Riverside | 3 | 0.2221 |
| Riverside | 3 | 0.2289 |
| Riverside | 3 | 0.5889 |
| Westpointe | 3 | 0.3681 |
| Westpointe | 3 | 0.4090 |
| North Temple Trailhead | 3 | 0.4044 |
| 17th South Riverpark | 3 | 0.4051 |
| Park N Ride | 1 | 0.4097 |
| Westside Senior Center | 1 | 0.7363 |
| Liberty Senior Center | 1 | 0.2812 |

| | | |
|-------------------------|---|---------|
| Liberty Senior Center | 1 | 0.1069 |
| 10th East Senior Center | 1 | 0.8038 |
| Dee Glen Smith Center | 1 | 0.7627 |
| Dilworth | 2 | 0.5838 |
| Wasatch Hollow Park | 3 | 0.2542 |
| Popperton Park | 3 | 0.1741 |
| 11th Ave Park | 3 | 0.2674 |
| Lindsey Gardens | 3 | 0.3909 |
| Fisher Mansion | 3 | 0.2644 |
| Total | | 31.5208 |

Parks Acreage

| <u>Park Name</u> | <u>Acres</u> |
|------------------|--------------|
|------------------|--------------|

| | |
|----------------------------|-------|
| 7th East Parking | 3.5 |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 7th East Parking | |
| 9th South River Park | 4.5 |
| 17th South River Park | 17 |
| City and County- | 11 |
| City and County- | |
| City and County- | |
| Curtis Mini Park- | 1.25 |
| First Encampment Park | 0.75 |
| Fremont Parking | N/A |
| Gallacher Park- | 0.25 |
| Glendale Park | 6 |
| Glendale Youth Center | 5 |
| Glendale Unity Center | 3 |
| Herman Franks- | 10 |
| Herman Franks- | |
| Jefferson Park | 3.25 |
| Jordon Park North | 33.5 |
| Jordon Park South | |
| Jordon Park Peace Gardens- | |
| Library Commons- | 8 |
| Liberty Park- A | 101.5 |
| Liberty Park- B | |
| Liberty Park- C | |
| Liberty Park- D&F | |
| Liberty Park- E | |
| Liberty Park- G&J | |
| Liberty Park- H | |
| North Temple Parking | 1.5 |
| Pioneer Police Precinct | 2 |
| Poplar Grove | 6.75 |

| | |
|-------------------------|------|
| Poplar Grove Park North | |
| Poplar Grove Park West | |
| Richmond Park | 2 |
| Tauffer Park- | 1 |
| The Bend in the River | 0.25 |
| Vannes Tot Lot | 0.25 |
| Wasatch Hallow Park- | 2 |
| Wesemann Park | 0.25 |
| Westminister Park | 0.5 |

| | |
|---------------------------------|-------|
| 350 S 400 W | 0.25 |
| 5th West Island Rio Grande- | 1 |
| 7th Ave & A St. | 1 |
| 10th East Seniors- | 3 |
| 11th Ave Park | 25 |
| 14th Ave Tot Lot | 0.75 |
| Bateman Island- | 0.25 |
| Bonneville Pavilion | 1 |
| City Creek Islands | 1.25 |
| City Creek Park- | 2 |
| Cottonwood Park South | 6 |
| Davis Park | 0.5 |
| Donner Park | 17 |
| Donner Park West | |
| Donner Trail Park | |
| Ensign Downs | 7 |
| Fault Line Gardens | 1 |
| Guadeloupe Mini Park | 1 |
| Guardsman Way- | 1 |
| Harvard Island | 0.5 |
| Inglewood Mini Park- | 0.5 |
| Jackson Mini Park- | 1 |
| Jordan Meadows | 2.4 |
| Laird Park | 1.75 |
| Lindsay Gardens Irr/Re | 15.25 |
| Lindsay Gardens Irr/Snack | |
| Lindsay Gardens Middle | |
| Lindsay Gardens South | |
| Lindsay Gardens Upper Ball Park | |
| Madison Park | 2 |
| Memory Grove- | 8.75 |
| Memory Grove Restrooms | |
| Memory North East Capital | |
| Miami Street Retention | 1 |
| North Gateway | 5 |
| Parks Department- | 7.5 |

| | |
|---------------------------|-------|
| Pioneer Park South | 11.25 |
| Pioneer Park West | |
| Popperton Park | 8 |
| Reservoir Park Southeast | 6.5 |
| Reservoir Park South | |
| Riverside Park- | 28.5 |
| Riverside Park-CPOC/Snack | |
| Riverside Park DPOC | |
| Rose Park Lane | 1 |
| Rosewood Park | 22.25 |
| Rotary Glen Park | 24.3 |
| Sherwood Park- | 12.75 |
| Shipp Mini Park | 0.25 |
| Steenblik Mini Park- | 2 |
| Steiner Aquatic- | 3 |
| Sunnyside Islands | 0.25 |
| Sunnyside Park- | 27 |
| Sunnyside Retention | |
| Swede Town Mini Park | 0.75 |
| Warm Springs | 8.5 |
| Westpointe Park | 23 |
| Westpointe Park West | |
| Yalecrest Islands- | 0.5 |

| | |
|-------------------------|-----|
| Center Street/RE/IRR 4" | 250 |
| Center Street 6" | |
| North Plat | |
| Office Bldg | |
| Park Plat North | |
| Park Plat South | |
| Shop BLDG/RE/IRR | |
| U Plat | |
| U Street Parkstrip | |
| Upper Ball Park | |
| West 1 Tennis | |
| West 13 | |
| West 14 | |
| X Plat | |

| | |
|------------------------|------|
| 2nd West Track Islands | 0.25 |
| 6th South River Trail | 1 |
| S Temple to 900 S D-2 | N/A |
| 635 S 800 W | 4.5 |
| 635 S 800 W | |
| 645 S 800 W | |

| | |
|--------------------------------|------|
| 693 S 800 W | |
| 703 S 800 W | |
| 737 S 800 W | |
| 745 S 800 W | |
| 795 S 800 W | |
| 803 S 800 W | |
| 837 S 800 W | |
| 845 S 800 W | |
| 881 S 800 W | |
| 8th South River Bike Stop | 0.25 |
| 9th South 9th East | 0.25 |
| 1295 E Stratford Ave | 2 |
| 1311 E Stratford Ave | |
| 2661 S 1300 E | 1.75 |
| 2700 S 1321 E | |
| 13th South 15th East Island | 0.25 |
| 13th South Island | 0.25 |
| 13th South Tear Drop | 0.25 |
| 17th South Retention | 0.75 |
| Arcadia Park | 0.25 |
| Artesian Well Park | 0.25 |
| Beldon Mini Park | 0.25 |
| Burgess Island | 0.25 |
| Cotton Park | 0.25 |
| Counrty Club Island | 0.25 |
| Dilworth Park | 4.5 |
| Elizabeth Sherman | 1.5 |
| Fairmont Park South POC | 30 |
| Fairmont Park Simpson Dead End | |
| Fairmont Park North Parking | |
| Fairmont Park East POC | |
| Fairmont Park West POC | |
| Fairmout Senior Citizen Bldg. | |
| Glendale Circle Island | 0.75 |
| Hidden Hallow | 20 |
| Hillcrest Park | 0.75 |
| 1000 E Hollywood Ave | 0.25 |
| 906 E Hollywood Ave | |
| Jefferson Circle | 2 |
| Jordon River Trail DF | N/A |
| Liberty Sr. Citizens Bldg/Irr | 1.25 |
| Modesto Park | 5 |
| Mormon Garden Parkstrip | 0.25 |
| Native Garden Parkstrip | 0.25 |
| Nelli Jack Park | 0.25 |
| Oneida Islands | 0.75 |
| Parley Pratt Plaza | 0.5 |

| | |
|-------------------------------|------|
| Parley's Way | 2.75 |
| Post Street Tot Lot | 0.5 |
| Prison Islands | 0.5 |
| Propety Maintenance Home | N/A |
| Roberta Laconia | 0.25 |
| Skyline Island | 0.25 |
| Stratford Park | 2 |
| UTA Substation Parkstrip | 0.25 |
| Waters Island | 0.25 |
| Westside Sr.Citizens Bldg/Irr | 2 |

| | |
|-----------------------------------|------|
| 1st South Islands | 0.25 |
| 950 E 200 S | 0.75 |
| 1013 S 200 S | |
| 1060 E 200 S | |
| 1119 E 200 S | |
| 1163 E 200 S | |
| 867 W 200 S | 2 |
| 945 W 200 S | |
| 1073 W 200 S | |
| 1305 W 200 S | |
| 1143 W 200 S | |
| N Temple to 500 N+Quince St. | 0.25 |
| 131 N 200 W | 0.5 |
| 240 N 200 W | |
| 350 N 200 W | |
| 641 N 200 W | |
| 676 N 200 W | |
| 676 N 200 W | |
| 4th North Stairs | 0.5 |
| 450 S 400 W | 0.7 |
| 550 S 400 W | |
| 5th Ave & C St. | 0.5 |
| <u>5th West Contracted Meters</u> | |
| 5th West Island Fountain | |
| 10 N 500 W | 2.5 |
| 5th West Parkstrip/Island | |
| 10 N 500 W | |
| 5th West Center Island | |
| 66 S 500 W | |
| 5th West Center Island | |
| 150 S 500 W | |
| 500 W South Temple | |
| 42 S 500 W | |
| 82 S 500 W | |

| | |
|-----------------------|------|
| 505 S 500 W | 0.5 |
| 550 S 500 W | |
| 450 S 500 W | |
| 550 S 500 W | |
| 100 N to 900 S | N/A |
| 42 S 600 E | 2.75 |
| 70 S 600 E | |
| 117 S 600 E | |
| 137 S 600 E | |
| 184 S 600 E | |
| 211 S 600 E | |
| 275 S 600 E | |
| 405 S 600 E | |
| 537 S 600 E | |
| 551 S 600 E | |
| 577 S 600 E | |
| 737 S 600 E | |
| 218 S 600 E | |
| 7th Ave & A St. Extra | N/A |
| 47 S 800 E | 2.75 |
| 143 S 800 E | |
| 237 S 800 E | |
| 331 S 800 E | |
| 440 S 800 E | |
| 539 S 800 E | |
| 647 S 800 E | |
| 811 S 800 E | |
| 44 N 800 W | 2.5 |
| 152 N 800 W | |
| 228 N 800 W | |
| 10 S 800 W | |
| 57 S 800 W | |
| 107 S 800 W | |
| 9th South Island | 0.25 |
| 1000 E to 1200 E | N/A |
| 1000 E to 1200 E | N/A |
| 35 S 1200 E | 2.5 |
| 72 S 1200 E | |
| 121 S 1200 E | |
| 160 S 1200 E | |
| 174 S 1200 E | |
| 336 S 1200 E | |
| 401 S 1200 E | |
| 13th Ave & J St. | 0.25 |
| 4th Ave. Stairs | 0.5 |
| Almond Park | 0.25 |
| Aztec North | 0.25 |

| | |
|----------------------------|------|
| Aztec South | 0.5 |
| Beatrice Evans Park | 0.25 |
| 1196 W Dupont-Boyscout | 2 |
| 1196 W 1200 N-Boyscout | |
| 1118 N Boy Scout Dr. | |
| Caballo Drive | 0.45 |
| Cottonwood Park North | 19 |
| Day Riverside Library East | 4.5 |
| Day Riverside Library West | |
| Dea Island | 0.25 |
| Dee Glenn Smith Tennis | 2.75 |
| Ensign Peak | 10 |
| Firestation/Tennis | 0.25 |
| 1384 E South Temple | 0.25 |
| 1406 E Perry Ave | 0.25 |
| 1436 E South Temple | 0.25 |
| 1449 E Perry Ave | 0.25 |
| 2nd Ave & Military Way | 0.25 |
| Foot Hill BLVD | 0.5 |
| Ft Hill BLVD Parkstrip | |
| Ft Hill Church Parkstrip | |
| Gilgal Gardens | 3 |
| Independence Islands | 0.25 |
| Kletting Mini Park | 0.25 |
| Laird Circle | 0.25 |
| Miller Park | 0.25 |
| Normandie Island | 0.25 |
| North Gateway Restrooms | N/A |
| North Gateway State | N/A |
| North Temple Islands | 0.25 |
| North Temple Islands | |
| Oak Hills Concession/DF | 2.5 |
| Park-N-Ride | 0.25 |
| Porkchop Hill | 2 |
| Pugsley Ouray Mini Park | 0.25 |
| Redwood Meadows | 1.25 |
| 355 S Wakara Way | 1 |
| 450 S Chipeta Way | 1 |
| 781 S Arapeen Dr. | 1 |
| Silver Mini Park | 0.25 |
| SLC Arts Council | N/A |
| Streets Dept. Salt Dome | N/A |
| Sunnyside Round-a-bout | 0.25 |
| 53 N Virginia St. | 0.5 |
| 205 N Virginia St. | |
| 241 N Virginia St. | |
| 268 N Virginia St. | |

| | |
|--------------------|------|
| Wall St. Islands | 0.25 |
| Warm Springs North | 0.5 |

Chemical Lists

RESTROOM SUPPLIES

Toilet Bowl Cleaner - Kling

Bleach - Clorox

Stainless Steel Cleaner – Hyko

Cleanser – Comet (Powder)

Cleanser – Comet (Liquid)

Glass Cleaner #1 – Hyko

All Purpose Cleaner #8 – Hyko

Pina Colada Air Fair – Zep

Cinnamon Air Fair – Zep

Hand Cleaner – Permatex (smooth)

Hand Cleaner – Permatex (Pumice)

Disinfectant Detergent – Easy Pak

Anti -Bacterial Soap - Micrell

Blue Foaming Hand Soap - Deb

Chemtool – Berryman

Gloss Black Spray Paint – Rust oleum

Hand Sanitizer – Purell

Porcelain Cleaner - Husky

TURF CHEMICAL PRODUCTS

25-3-10 Fertilizer (Anderson)

31-0-10 Fertilizer (Anderson)

19-3-19 Fertilizer (Anderson)

Fungicide

Cascade

Milorganite

Snapshot

HI Step Mag

18-24-12 Starter Fertilizer

Propendi – Pre-Emergent

Millennium Ultra – Weed & Feed

Aqua Cap

Rout

Barricade

Pramitol – Ground Sterilant

Speed Zone

Round-Up Pro Max (1.6 Gallon)

Seven

Tordon

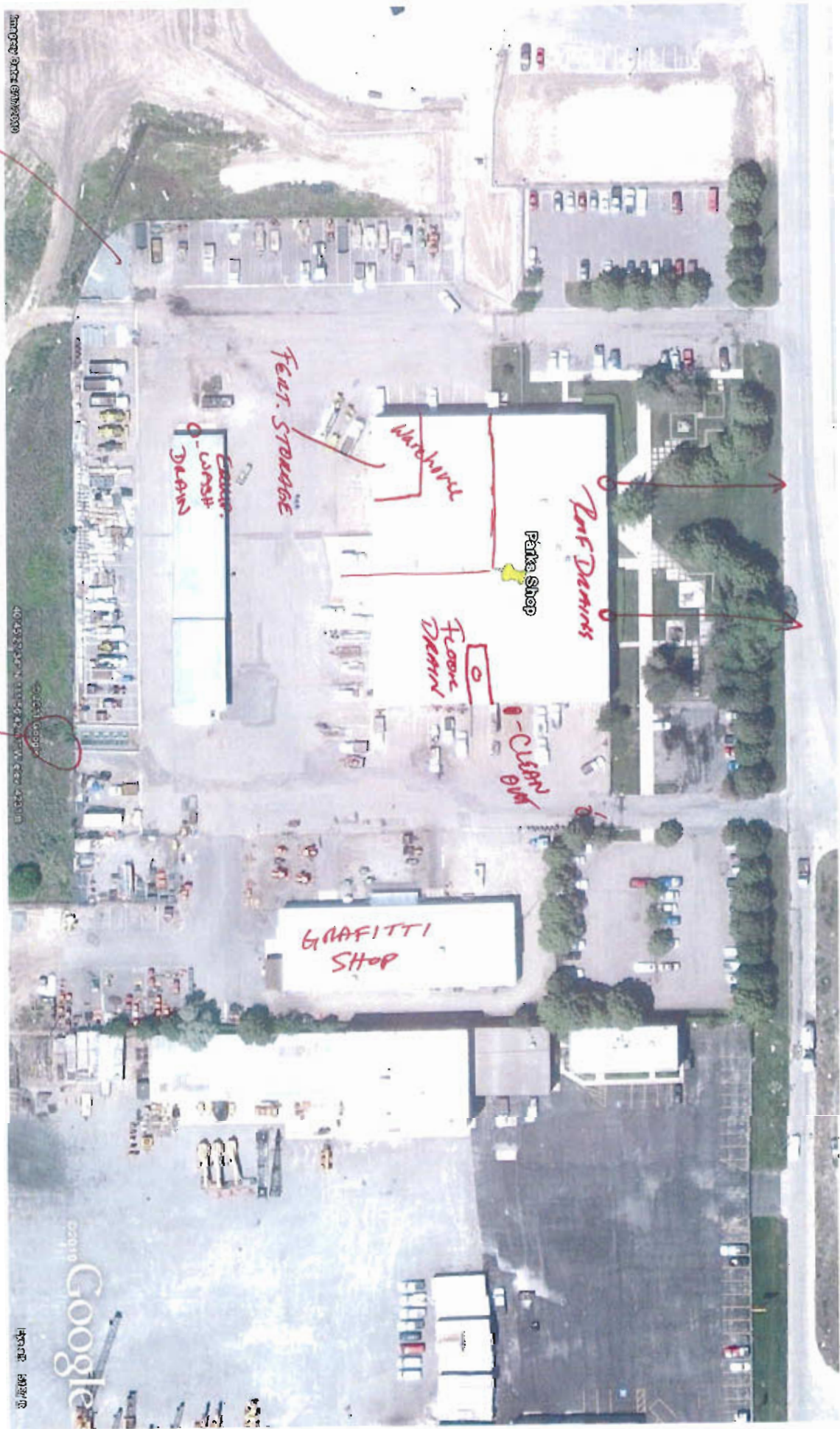
Milestone

Escort

Ice Melt – (Sno-Plow)

Pithium Control

District 1 Maps



RAIN FIELDS

RAINAGE

PAINT DENIMS

MARKING

FEAR STORAGE

EASTERN WASH DENIMS

FEAR DENIM

CLEAN

GRAFFITI SHOP

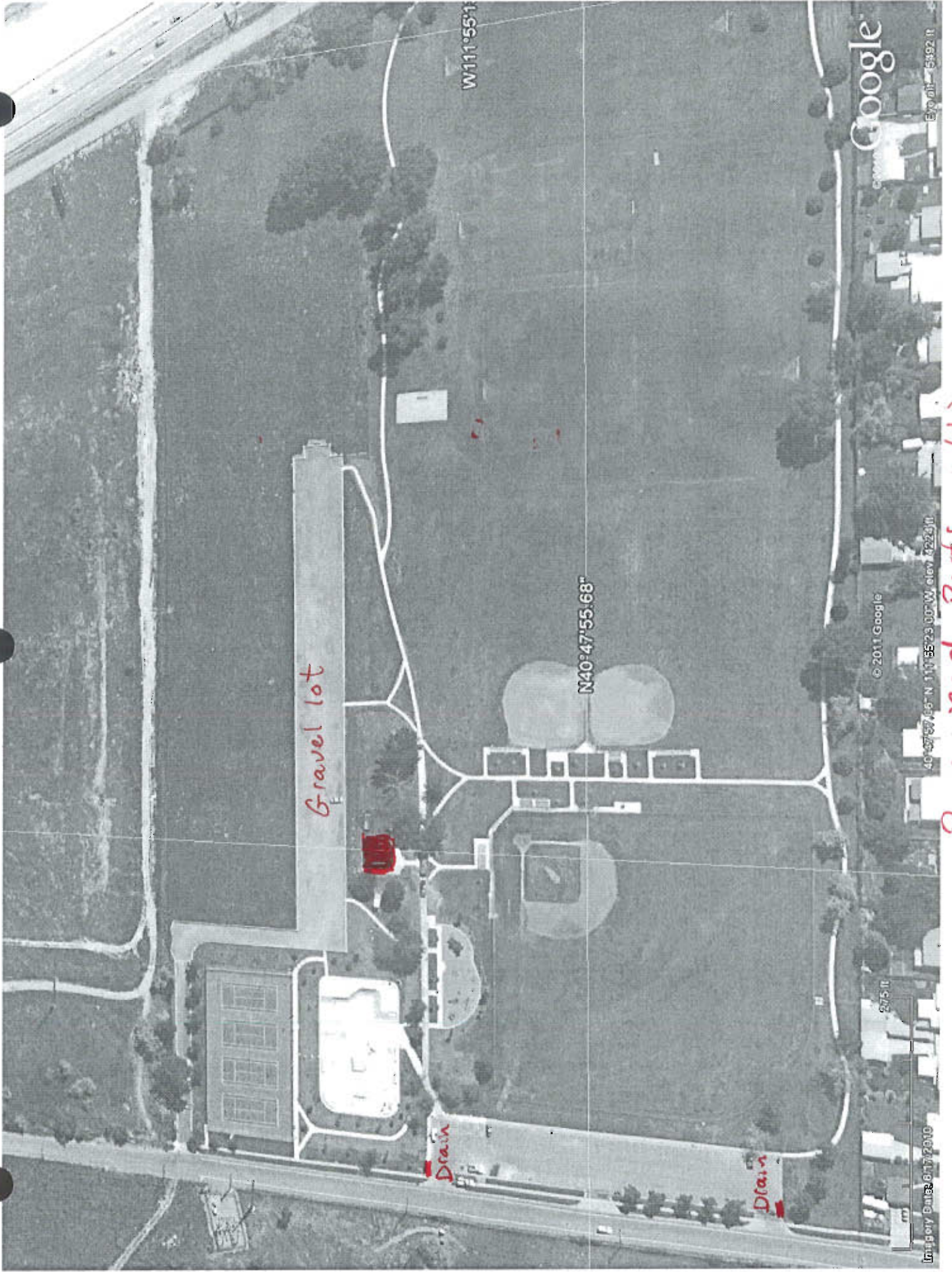
PANTS SHOP

Google

40°45'32.42"N 111°52'4.17"W (see 42211)

40°45'32.42"N 111°52'4.17"W (see 42211)

40°45'32.42"N 111°52'4.17"W (see 42211)



Gravel lot

Drain

Drain

Rosewood Restroom (1)

W111°55'1"

N40°47'55.68"

Google

© 2011 Google

40°27'57.66"N 111°55'23.00"W, elev. 422.3 ft

EV 061 5492 ft

Imagery Date: 8/17/2010

275 ft



Restrooms (4) Concession stand X

Eye alt: 59.38 ft

Google

© 2011 Google

40°47'05.51"N 111°56'03.41"W Elev 422.4 ft

363 ft

Imagery Date: 6/17/2010

Starting Location

W111°56'5.28"

N40°47'3.84"

Rose Park Ct

W100°41'51"

38 ft

Death

Death

Restrooms

X



Google

Earth 5808 ft

©2010

©2011 Google

40°47'39.95" N 111°56'48.40" W elev 4967 ft

362 ft

Imagery Date: 6/10/2010

Drain

Drain

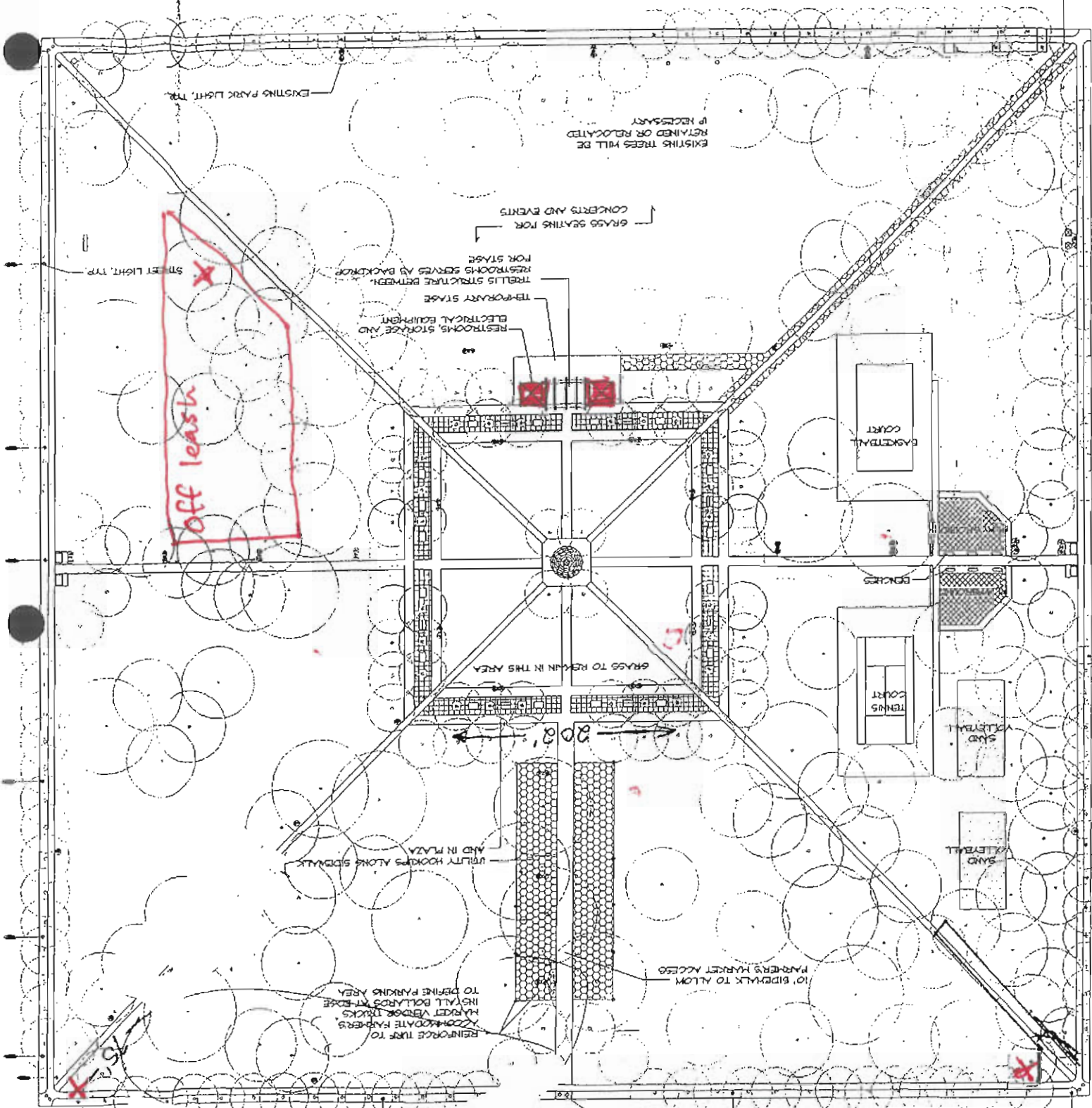
Drainage Basin

Westpoint Restrooms (2)

W 111 56 57.12"

400 SOUTH

INSTALL TRIP PAVERS



300 SOUTH

ACCESS RAIL AND REMOVE BOLLARDS

Restrooms (2)

POWELL

Dog bags (3) X





off leash

Cottonwood Restroom Dog Bag X

270 ft

©2010 Google

Eye alt: 5476 ft

©2010 Google

40°45'47.60"N, 111°56'14.51"W, elev 4227 ft

Image Date: 6/16/2010

N40°46'37.92"

W111°56'55"



©2010 Google

Eye alt: 5403 ft

©2011 Google

40°07'14.20" N 111°53'55.13" W elev: 5281 ft

Imagery Date: 8/27/2010

Warmsprings Restroom (1)

District 2 Maps



STORM
DRAINS



STORM
DRAIN



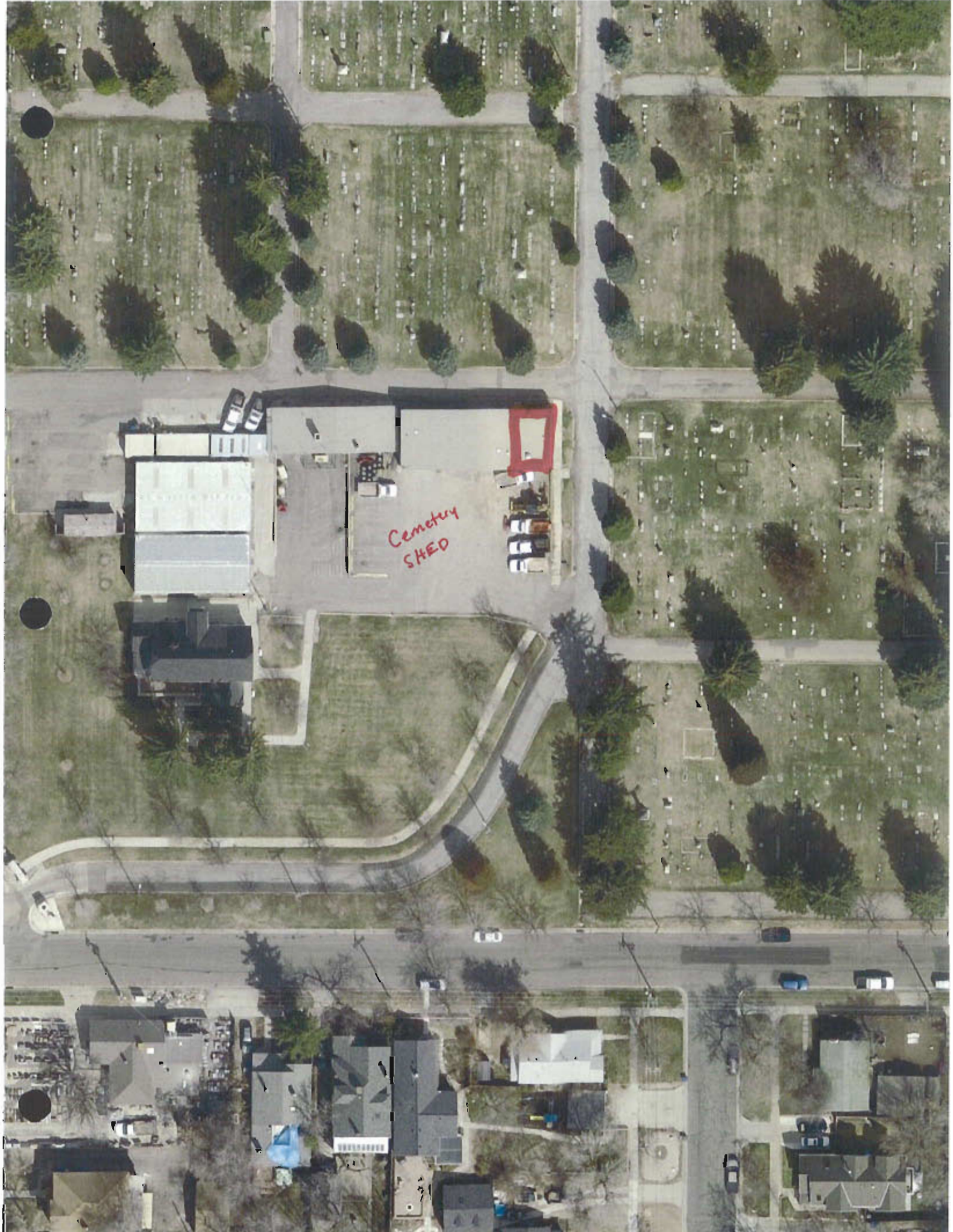
SUNNYSIDE
Restroom



STEINER
SHED



Kinsay
Restrooms





Bonniville
SALT Storage
winter only

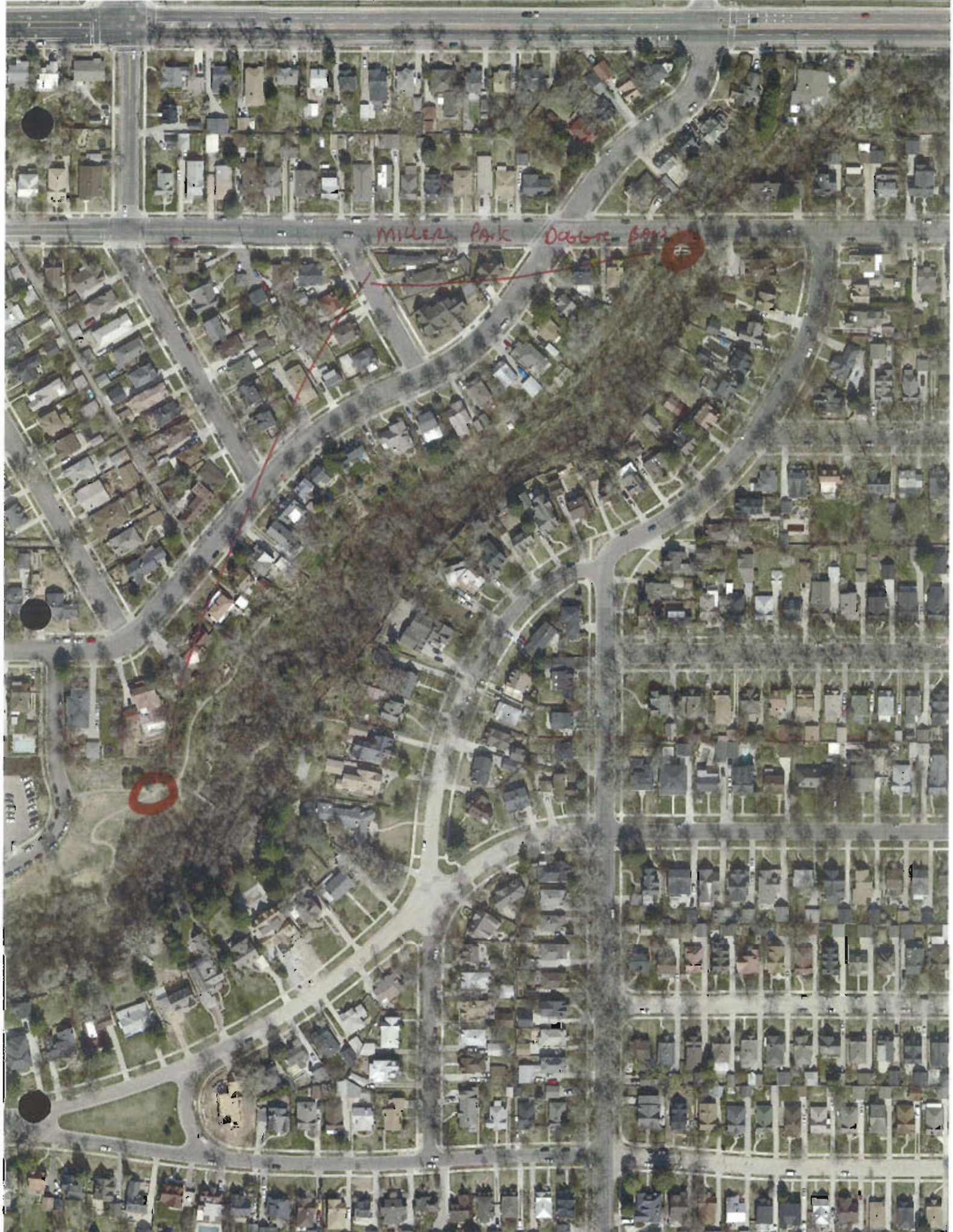


STEINER

SALT STORAGE

winter only





MILLER PARK DAGUE BOYS



MILLER PARK



~~TET~~ Victory Park
Dussil Basin





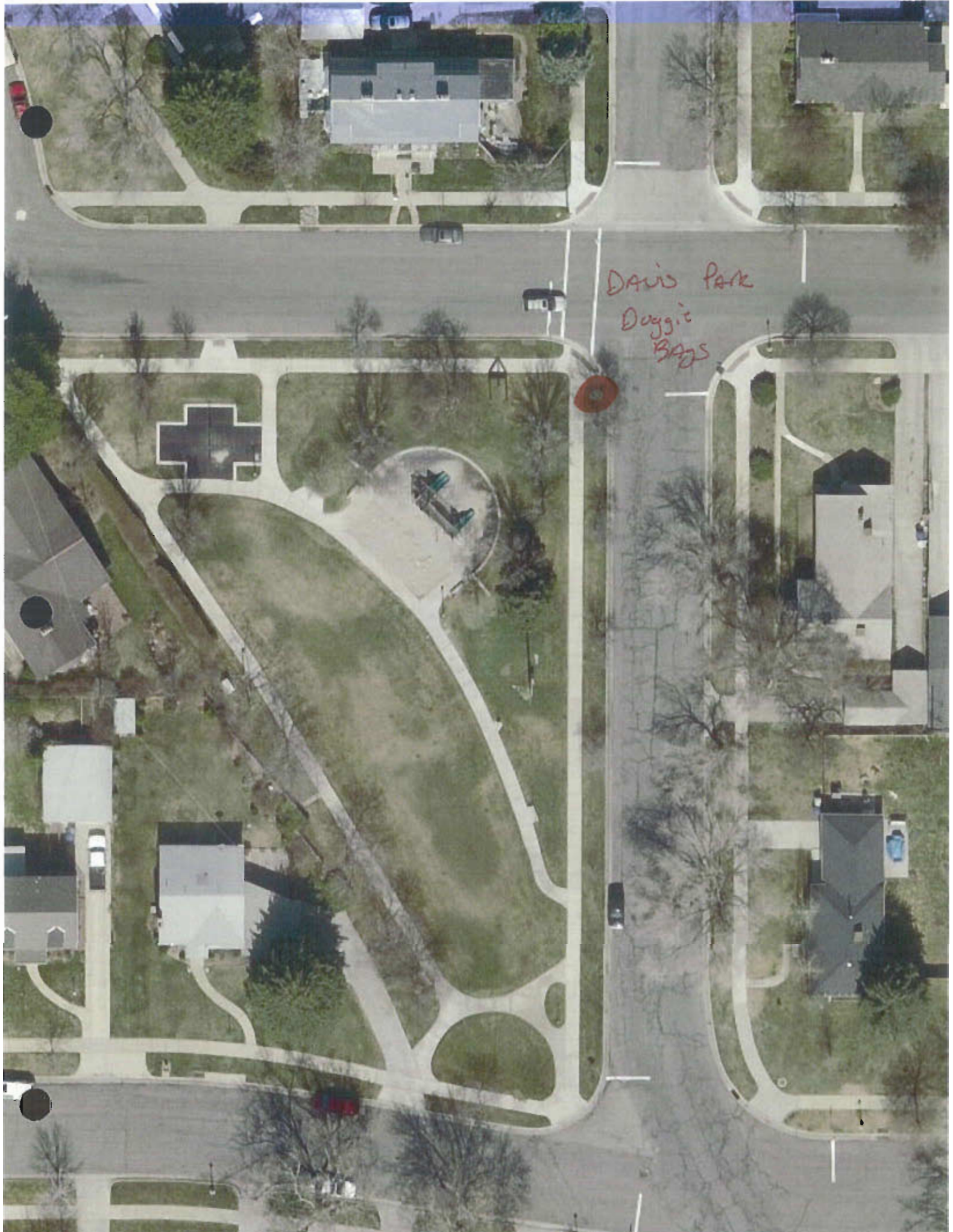
ROTARY
PARK Doggie
BAGS



Steiner
Ice Melt
Storage

LINDSAY
GARDENS
DOGIE
BAGS





DAVIS PARK
Doggie
BAGS

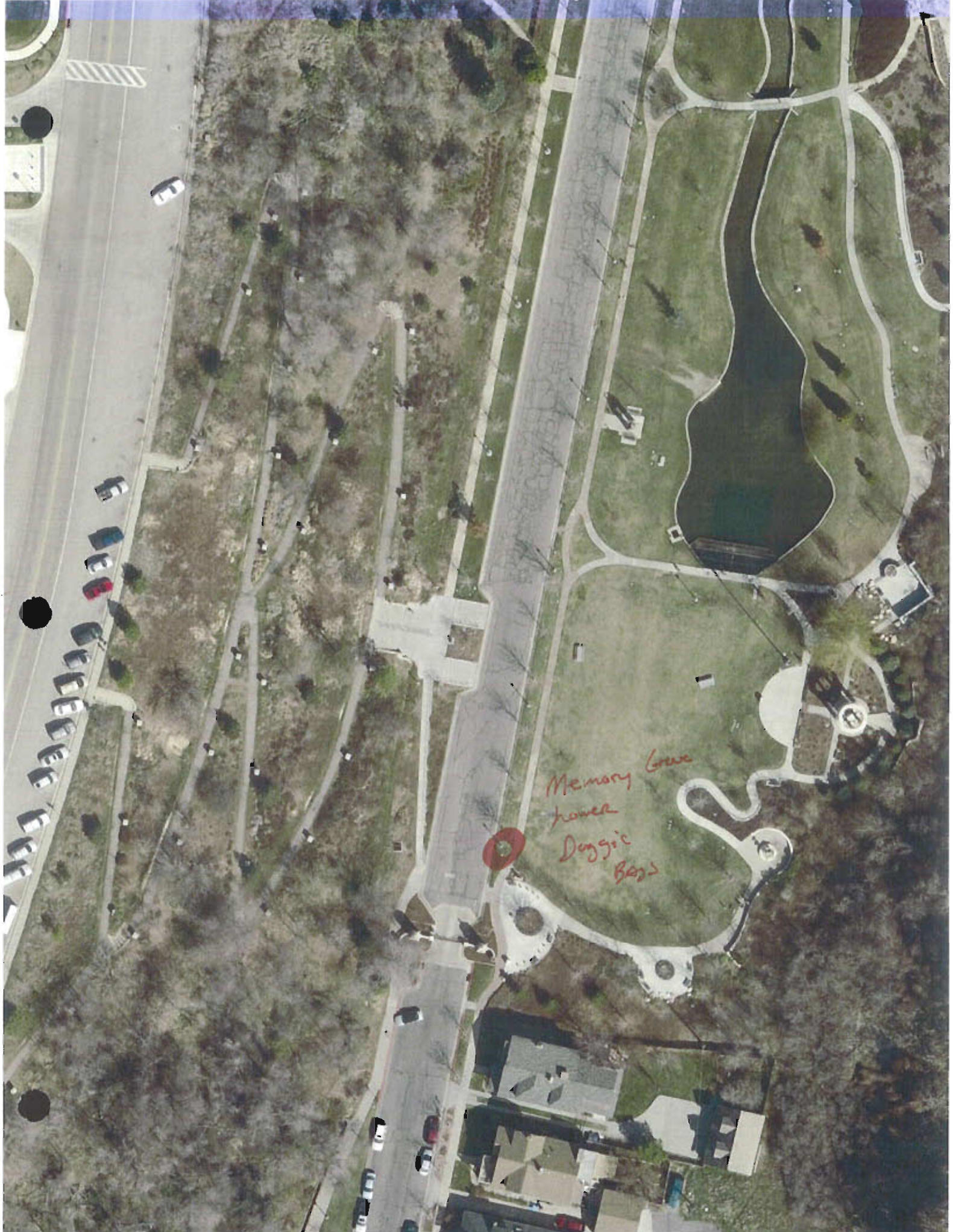


Reservoir

Park

Doggie Bags





Memory Grove
Lower
Duggie
Bess



Memory
Lane
Middle
Doggie
Bags





Memory Grove
Upper Doggie
Bags



District 3 Maps



0
50
100
200
Feet

D-3
LOCK
UP

WASH OUT
CHEMICAL
TANKS
+
Equipment

DIST-3
Room



PARKS SHOP - DISTRICT 3 BACKROOM + LOCKUP

BackRoom.

Lockup.



ST MARYS DR


2200 E

DRAINAGE
BASIN

Legend

- Parcels
- Addresses
- 1 - TOM ALLIRES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN

0 25 50 100 Feet



Curtis PARK

Drainage Basin



Legend

Parcels
Addresses



- 1 - TOM ALIRES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN



900 E

SIMPSON AVE

SUGARMONT DR

SIMPSON AVE

1100 E

I-80 WESTBOUND FWY

I-80 EASTBOUND FWY

Red room

Red room

Garage

Red room

FAIRMONT PARK

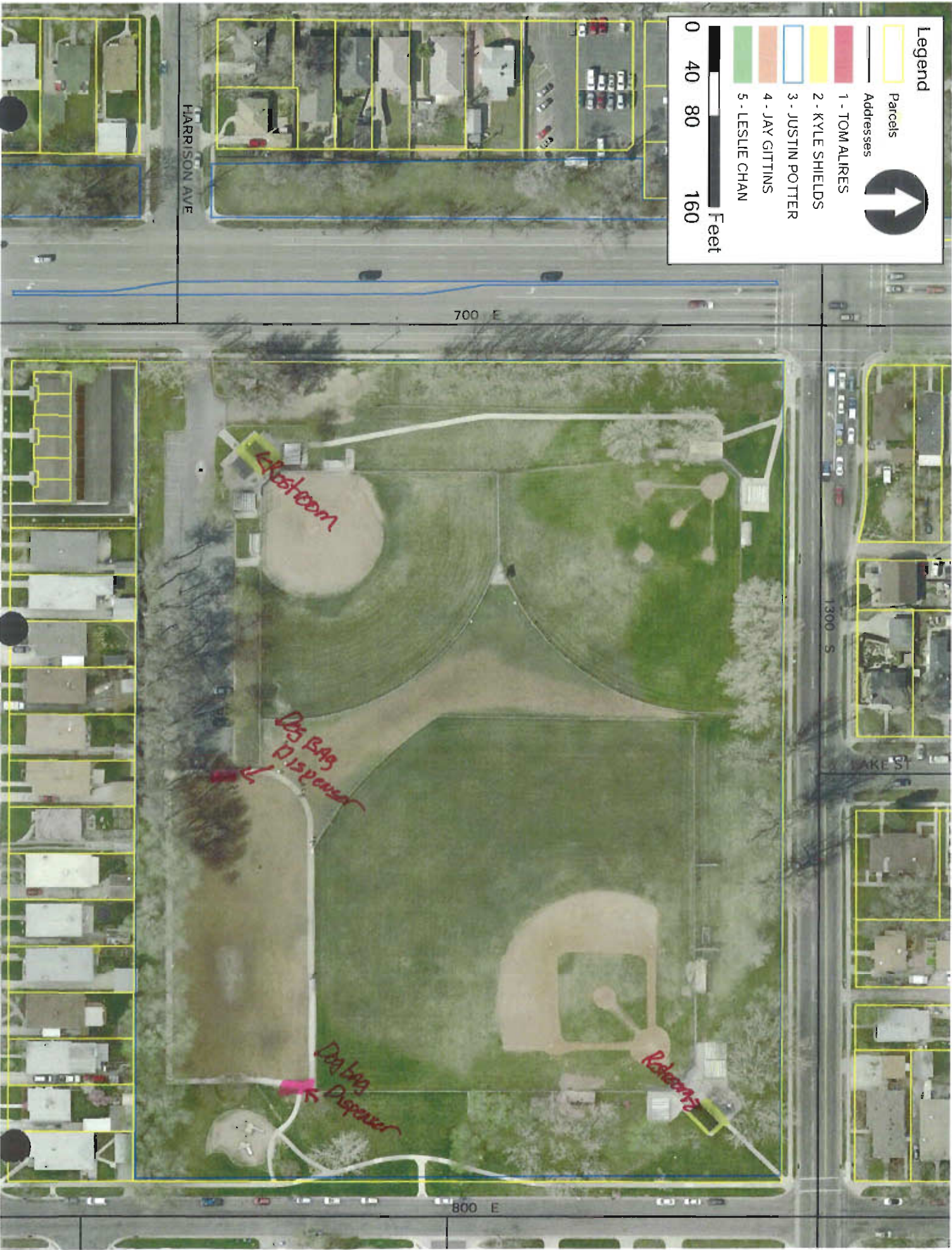
Restroom

GARAGE

10/12

10/12

10/12



Legend

- Parcels
- Addresses



- 1 - TOM ALIRES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN



HARRISON AVE

700 E

1300 S

LAKE ST

800 E

Restroom

Dog Bag Dispenser

Dog bag Dispenser

Restroom

HEIZMAN FRANKS PARK

Restroom

Dog Bag Dispensers





Legend

- Parcels
- Addresses
- 1 - TOM ALLIRES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN

0 100 200 400
Feet

1300 S
600 E

EDITH AVE

1150 S

HARVARD AVE

500 E

HERBERT AVE

WILLIAMS AVE

JAMIE S C

1030 S

PARK ST

900 S
600 E

GREEN ST

CONSTITUTION EAST DR

CONSTITUTION WEST DR

1040 S

1020 S

700 E

CONSTITUTION EAST DR

LIBERTY AVE

PRINCETON AVE

VALE AVE

BELMONT AVE

ANGUS ST

LIBERTY PARK

Restroom

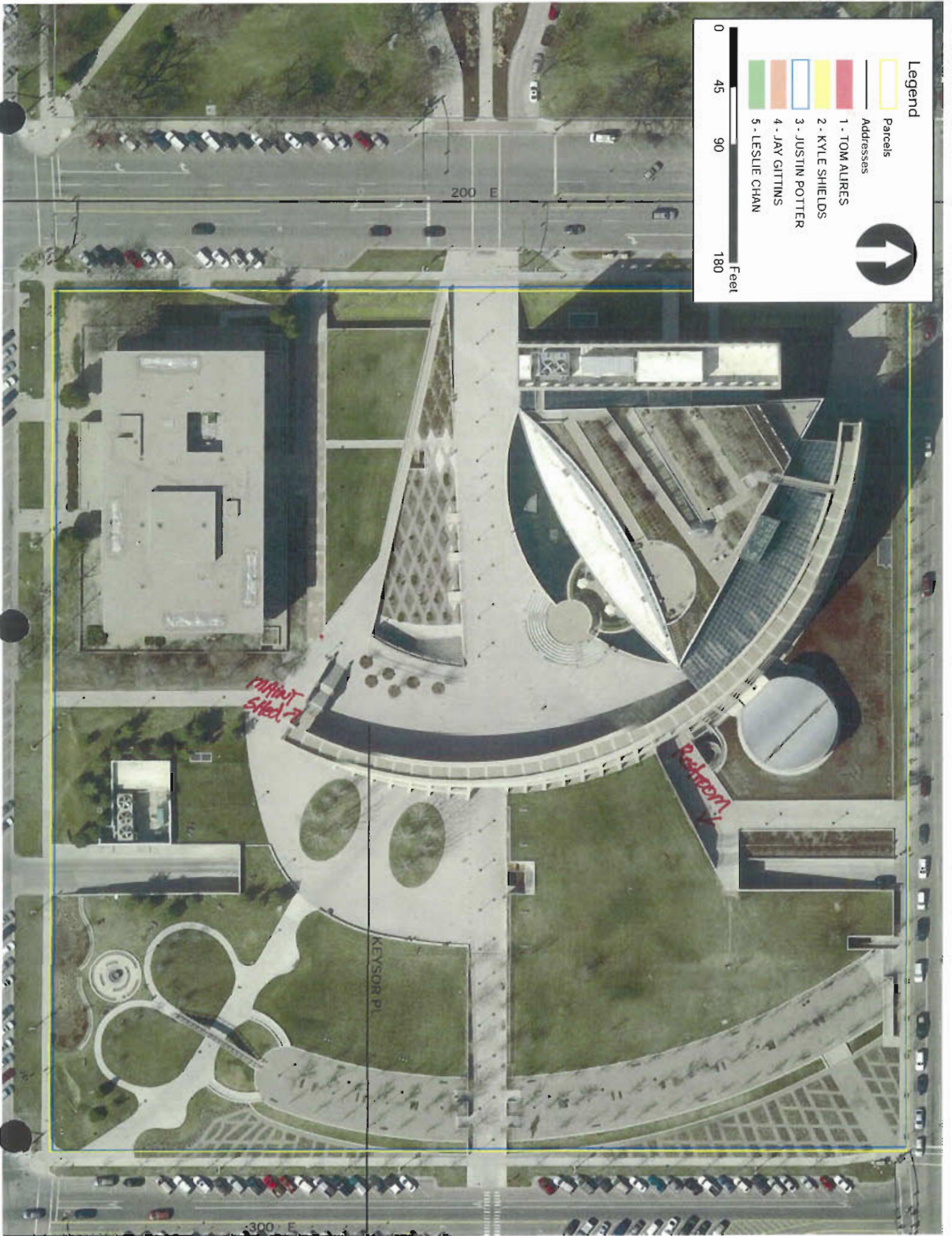
GARAGE

MAINTANCE BUILDING

Green House

Fuel Island





Legend

- Parcels
- Addresses



- 1 - TOM ALPES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN



without shed 7

Redmond

KEYSOR PL

200 E

300 E

LIBRARY SQUARE

MAINTENANCE shed

Restroom





1700 S

LOGAN AVE

1600 E

BRYAN AVE

Restroom
Dog Bag Dispenser

Dog Bag Dispenser

Legend

- Parcels
- Addresses
- 1 - TOM AURES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN

0 25 50 100 Feet

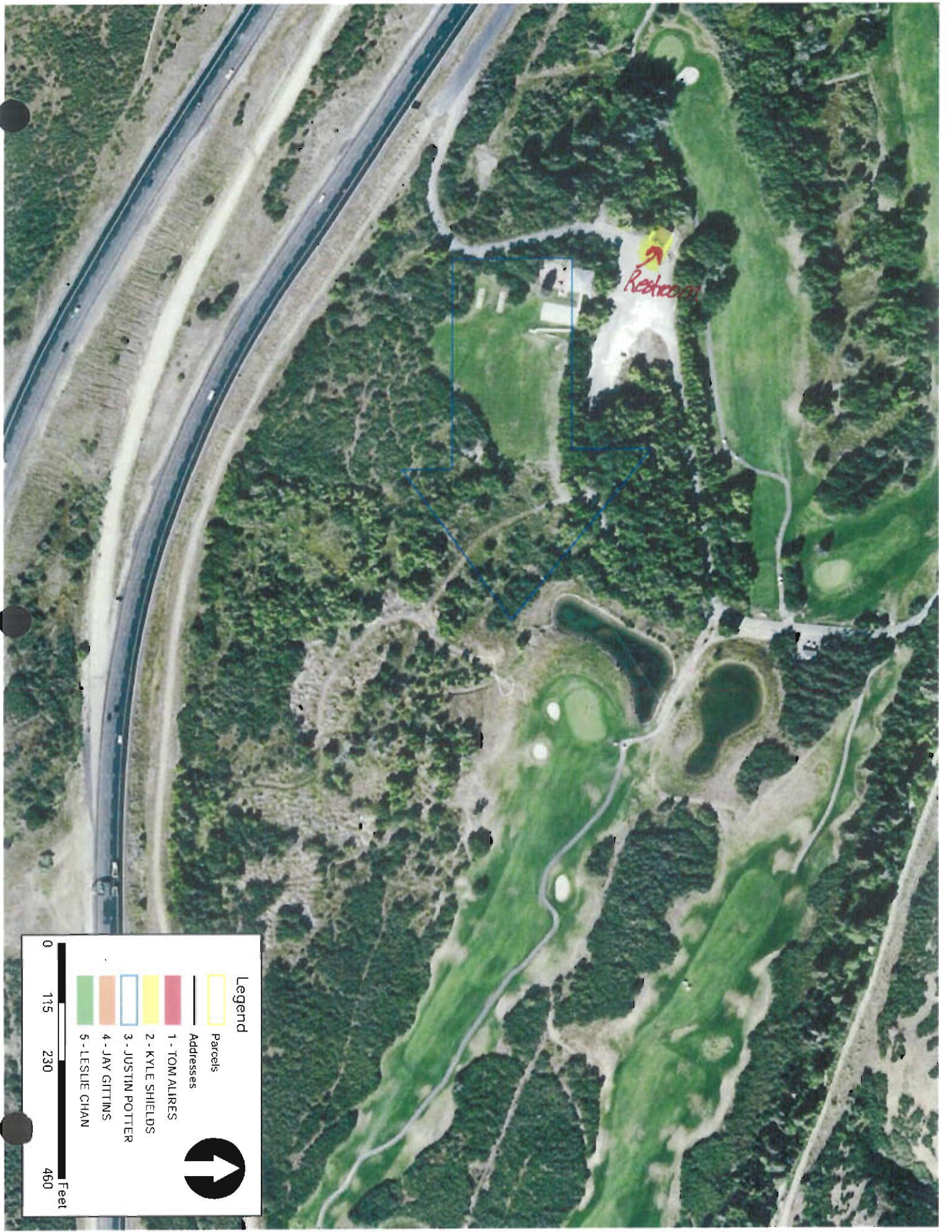
WASATCH Hollow PARK

Dog BAG Dispenser

Restroom

WASATCH Hollow PARK
Dog BAG Dispenser
Restroom

WASATCH Hollow PARK
Dog BAG Dispenser
Restroom



Restroom

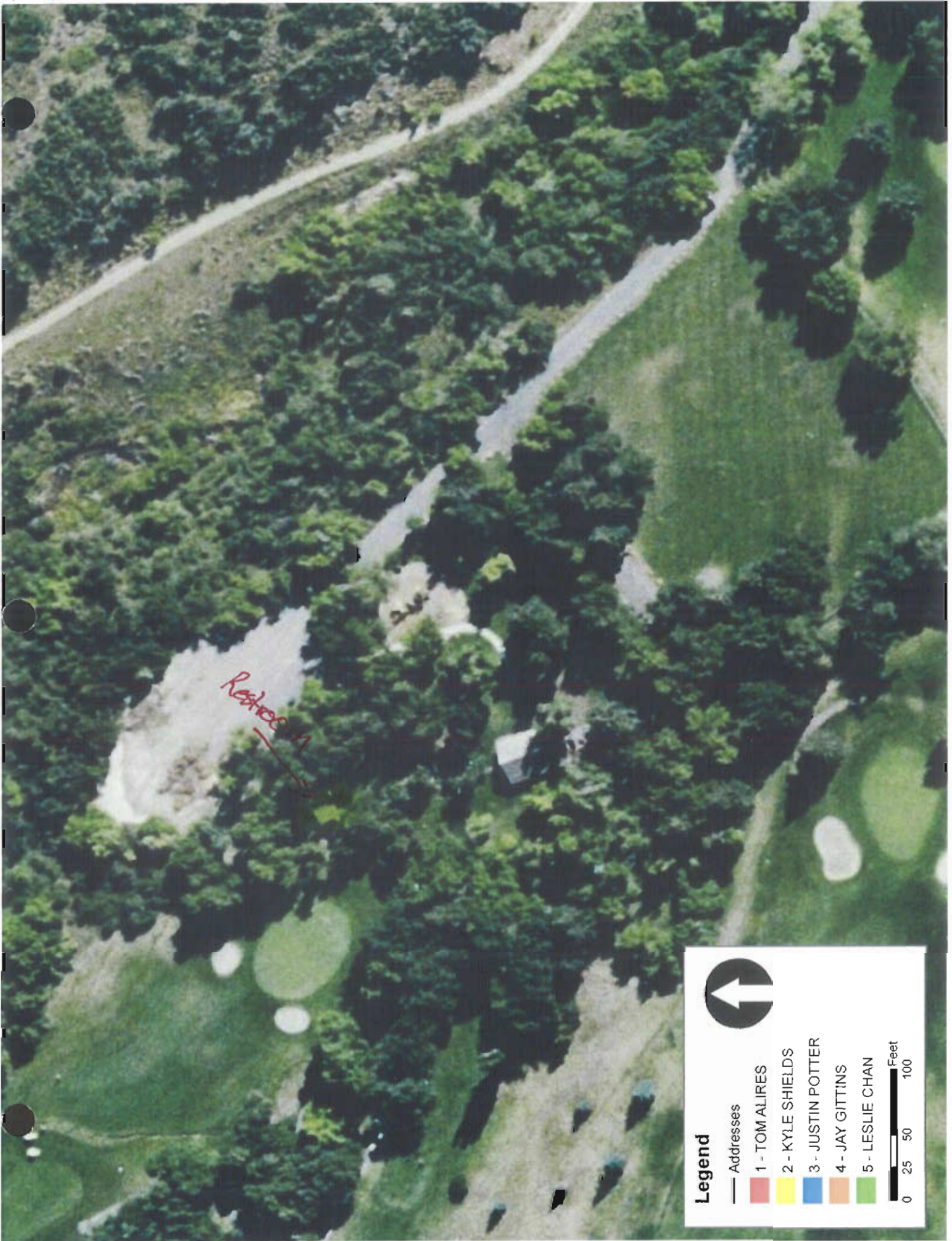
Legend

- Parcels
- Addresses
- 1 - TOM ALLRES
- 2 - KYLE SHIELDS
- 3 - JUSTIN POTTER
- 4 - JAY GITTINS
- 5 - LESLIE CHAN

0 115 230 460 Feet

Washington PARK upper

Restroom



Restroom

Legend

— Addresses

1 - TOM ALIRES

2 - KYLE SHIELDS

3 - JUSTIN POTTER

4 - JAY GITTINS

5 - LESLIE CHAN

0 25 50 100 Feet



WASHINGTON PARK Lower

Restroom

Restroom

District 4 Maps



JORDAN PARK
BATH ROOMS
GREENHOUSE



SHERWOOD PARK

BATHROOMS



POPLAR GROVE

BATHROOMS



9TH S. RIVER

BATHROOMS



JEFFERSON CIRCLE
DRAINAGE BASIN

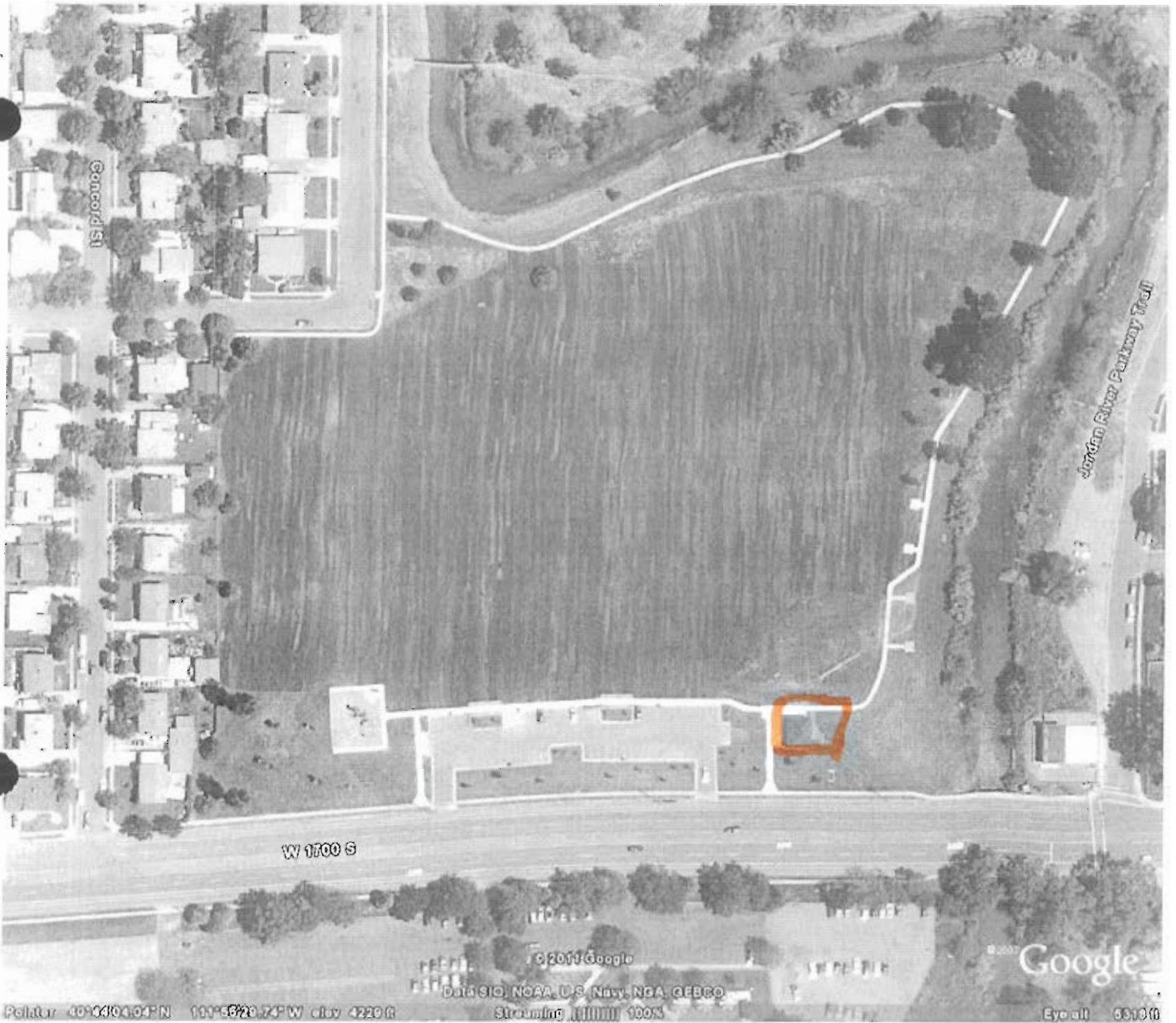


SEFFERSON PARK

DRAINAGE BASIN



17th S. RETENTION
DRAINAGE BASIN



17th S. RIVER PARK

BATHROOMS



GLENDALE PARK

BATHROOMS

APPENDIX E – Salt Lake City Owned Facilities

DRAFT



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| City owned & operated facilities | Address | Acres | Amenities | Operations & Potential Pollutants | SW Controls |
|---|---|--------------|--|--|--|
| Parks Department | 400 S. State Street 1965 West 500 South 84104 (Mon-Fri 8:00-5:00) | 38.2 | Offices, warehouse, shops, wash bay & conference room | Fuel, Turf & Tree chemicals, rubbish & Equipment Cleaning. | Good Housekeeping, SOPs, Infiltration drainage swells. |
| 11th Ave Park | 581 N Terrace Hills Dr (890 E) | 25 | Playground, Multi-purpose fields, Basketball, Tennis, Jogging/Walking Path, Drinking Fountain, Volleyball, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| 17th South River Park | 1150 W 1700 S | 17 | Playground, Restroom, Multi-purpose fields, Drinking Fountain | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| 6th East | 220 S 600 E | 0.25 | Playground | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| 9th South River Park | 1000 W Genesee (850 S) | 4.5 | Restroom, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Arcadia Trailhead | 1825 S Lakeline Dr (2950 E) | 0.25 | Jogging/Walking Path, Drinking Fountain | | |
| Artesian Well | 808 S 500 E | 0.25 | Drinking Fountain | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Beatrice Evans Park | 1224 E Gilmer Dr (905 S) | 0.25 | Sandbox | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Bend-In-The-River Open Space | 1054 W Fremont Drive | 4.25 | Natural Area | | |
| Bonneville Shoreline Preserve Open Space | | 57.73 | Natural Area | | |
| Bonneville Shoreline Trail Open Space | | | Natural Area | | |
| City Creek Open Space above Memory Grove | 950 N City Creek Canyon | 369.16 | Natural Area | | Sediment basins |
| City Creek Park | 110 N State St | 4 | Drinking Fountain | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Constitution Park (County) | 1300 W 300 N | 16.5 | Click link to go to County site for information. | | |
| Cotten Park | 1815 S 300 E | 0.25 | Playground | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Cottonwood Park | 1580 W North Star Dr (300 N) | 25 | Playground, Restroom, Basketball, Jogging/Walking Path, Volleyball, | Maintenance activities: Tree & turf chemical applications, mowing, | |



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | | | |
|-------------------------|------------------------------|------|--|--|----------------------------------|
| | | | Pavilion, Off-leash area, Picnic Tables | rubbish, equipment fluid leaks.& pet waste. | |
| Curtis Park | 1421 S 2200 E | 1.25 | Playground | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Davis Park | 916 S 2000 E | 0.5 | Playground, Drinking Fountain | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Dee Glen Smith Tennis | 1130 S Wasatch Dr (2520 E) | 2.75 | Restroom, Tennis, Reservation | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | Trash containers housekeeping |
| Dilworth Park | 1953 S 2100 E | 4.5 | Tennis, Softball | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Donner Trail Park | 2903 E Kennedy Dr (985 S) | 17 | Playground, Jogging/Walking Path, Drinking Fountain, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Ensign Downs Park | 125 E Dorchester Dr (880 N) | 7 | Playground, Tennis, Softball, Jogging/Walking Path, Drinking Fountain, Volleyball | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Ensign Peak Nature Park | 1002 N Ensign Vista Dr | 0.25 | Jogging/Walking Path | | |
| Fairmont Park | 1040 E Sugarmont Dr (2225 S) | 30 | Playground, Restroom, Multi-purpose fields, Basketball, Jogging/Walking Path, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables, Swimming Pool, Skate Park | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Faultline Park | 1041 E 400 S | 1 | Playground, Drinking Fountain, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Fire Station Tennis | 1015 West 300 N. | 0.5 | Tennis | | |
| First Encampment Park | 1704 S 500 E | 0.75 | | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Galagher Park | 644 S Park St (540 E) | 0.25 | Playground | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Gilgal Garden | 749 E 500 S | 3 | | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Glendale Park | 1375 W 1700 S | 6 | Restroom, Tennis, Softball, Drinking Fountain, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Guadalupe Park | 619 W 500 N | 1 | Playground, Basketball, Picnic Tables | Maintenance activities: Tree & turf chemical applications, mowing, | |



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | | | |
|-----------------------------|--------------------------------|-------|--|--|--|
| | | | | rubbish, equipment fluid leaks.& pet waste. | |
| Herman Franks Park | 1371 S 700 E | 10 | Playground, Restroom, Baseball, Off-leash area | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Hidden Hollow | 1229 E Wilmington Ave (2195 S) | 5 | Jogging/Walking Path, Drinking Fountain, Natural Area | Maintenance activities: Tree & turf chemical applications, mowing, rubbish, equipment fluid leaks.& pet waste. | |
| Hillcrest Park | 1927 E Hillcrest Ave | 0.75 | | | |
| H-Rock Open Space | 1865 S Devonshire Drive | 50.25 | Natural Area | | |
| Inglewood Park | 1159 S McClelland St (1040 E) | 0.5 | Playground, Drinking Fountain | | |
| International Peace Gardens | 1060 S 900 W | 12 | Drinking Fountain | | |
| Jackson Park | 481 N Grant St (740 W) | 1 | Playground, Picnic Tables | | |
| Jefferson Park | 110 W Fremont Ave (1115 S) | 3.25 | Playground | | |
| Jordan Meadows Park | 1920 W 400 N | 2.5 | Playground, Jogging/Walking Path, Drinking Fountain, Picnic Tables | | |
| Jordan Park | 1060 S 900 W | 33.5 | Playground, Restroom, Tennis, Softball, Drinking Fountain, Volleyball, Pavilion (reservations), Off-leash area, Picnic Tables, Skate Park, Horseshoes | | |
| Jordan River Parkway | 2100 S 2400 N | | Jogging/Walking Path | | |
| Kay Rees Park | 535 E 14th Ave (700 N) | 0.75 | Multi-purpose fields | | |
| Kletting Park | 164 N B St (250 E) | 0.5 | Playground | | |
| Laird Park | 1185 S 1800 E | 1.75 | Playground, Multi-purpose fields, Softball, Drinking Fountain, Picnic Tables, Sandbox | | |
| Liberty Park | 600 E 900 S | 100 | Playground, Restroom, Basketball, Tennis, Jogging/Walking Path, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables, Swimming Pool, Horseshoes | | |
| Lindsey Gardens | 426 N M ST (800 E) | 15.25 | Playground, Restroom, Baseball, Drinking Fountain, Pavilion (reservations), Off-leash area, Picnic Tables | | |
| Madsen Park | 9 N Chicago St (940 W) | 2 | Playground, Basketball, Softball, Picnic Tables | | |
| Memory Grove | 300 North Canyon Road | 8.75 | Restroom, Jogging/Walking Path, Drinking Fountain, Off-leash area, Picnic Tables | | |
| Miami Park | 1571 N Miami Rd (1780 W) | 1 | Playground | | |
| Miller Park | 1708 E 900 S | 8.75 | Jogging/Walking Path, Natural Area | | |
| Modesto Park | 1175 S 1000 W | 5 | Playground, Jogging/Walking Path | | |
| North Gateway Park | 910 N Beck St (300 W) | 5 | Restroom, Jogging/Walking Path, Drinking Fountain | | |
| Oak Hills Ball Diamonds | 1216 S Wasatch Dr (2520 E) | 2.5 | Restroom, Baseball, Drinking Fountain | | |



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | | | |
|-------------------------------|-----------------------------|------|--------------------------------------|--|--|
| Parley's Historic Nature Park | 2740 S 2700 E | 87 | Jogging/Walking Path, Off-leash area | | |
| Parley's Way | 2848 E Wilshire Dr (2565 S) | 2.75 | Playground | | |

DRAFT



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | |
|---------------------------|--------------------------------------|-------|--|
| People's Freeway Park | 1560 S West Temple St (100 W) | 0.5 | Playground |
| Pioneer Park | 350 S 300 W | 10 | Playground, Restroom, Basketball, Tennis, Jogging/Walking Path, Drinking Fountain, Volleyball, Off-leash area |
| Poplar Grove Park | 800 S Emery St (1170 W) | 6.75 | Playground, Restroom, Basketball, Tennis, Baseball, Drinking Fountain, Volleyball, Pavilion (reservations), Horseshoes |
| Popperton Park | 1400 E Popperton Park Way (360 N) | 8 | Playground, Multi-purpose fields, Jogging/Walking Path, Picnic Tables |
| Post Street | 487 S Post St (940 W) | 0.5 | Playground, Drinking Fountain |
| Pugsley Ouray Park | 343 W 500 N | 0.25 | Playground |
| Redwood Meadows Park | 1768 W 400 N | 1.25 | Playground |
| Regional Athletic Complex | 2100 N Rose Park Lane | 160 | Multi-purpose fields and more amenities to come in the future |
| Reservoir Park | 42 S University St (1345 E) | 6.5 | Playground, Multi-purpose fields, Tennis, Drinking Fountain, Picnic Tables |
| Richmond Park | 444 E 600 S | 2 | Playground, Drinking Fountain, Volleyball |
| Riverside Park | 1490 W 600 N | 28.5 | Playground, Restroom, Multi-purpose fields, Basketball, Tennis, Softball, Baseball, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables, Sandbox, Horseshoes |
| Rosewood Park | 1400 N 1200 W | 22.25 | Playground, Restroom, Multi-purpose fields, Tennis, Softball, Baseball, Jogging/Walking Path, Drinking Fountain, Volleyball, Picnic Tables, Skate Park |
| Rotary Glen Park | 2850 E Sunnyside (840 S) | 24.5 | Restroom, Drinking Fountain, Pavilion, Picnic Tables |
| Rotary Park | Up City Creek Canyon (2380 N 2500 E) | | Picnic Tables, Natural Area |
| Sherwood Park | 1450 W 400 S | 12.75 | Playground, Restroom, Baseball, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables |
| Shipp Park | 579 E 4th Ave (200 N) | 0.25 | Playground |
| Silver Park | 126 W 500 N | 0.25 | Playground, Drinking Fountain |
| Steenblik Park | 1050 W 800 N | 2 | Playground, Drinking Fountain, Picnic Tables |
| Stratford Park | 2635 S Preston St (1930 E) | 2 | Playground, Multi-purpose fields |
| Sunnyside Park | 1735 E Sunnyside Ave (840 S) | 25.5 | Playground, Restroom, Multi-purpose fields, Basketball, Tennis, Softball, Baseball, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables |
| Swede Town Park | 840 W 1500 N | 0.75 | Playground, Basketball, Sandbox |
| Taufer Park | 680 S 300 E | 1 | Playground |
| Victory Park | 237 S 1000 E | 3 | Playground, Tennis, Drinking Fountain |
| Warm Springs Park | 840 N Beck St (300 W) | 9 | Playground, Restroom, Multi-purpose fields, Tennis, Drinking Fountain, Picnic Tables |
| Wasatch Hollow Open Space | 1700 S 1650 E | 10 | Natural Area |
| Wasatch Hollow Park | 1631 E 1700 S | 20 | Playground, Restroom, Drinking Fountain |
| Washington Park | Canyon. Exit 134 on I-80 East | 20 | Playground, Restroom, Softball, Volleyball, Pavilion (reservations), Picnic Tables, Horseshoes |
| Washington Square | 451 S State Street | | Benches |



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | |
|---|---|----------------------------|--|
| Westminster Park | 986 E 1700 S | 0.5 | Playground |
| Westpointe Park | 1920 W Colonel Rd (1100 N) | 23 | Playground, Restroom, Multi-purpose fields, Basketball, Tennis, Softball, Baseball, Jogging/Walking Path, Drinking Fountain, Volleyball, Pavilion (reservations), Picnic Tables, Sandbox |
| Fire stations | Address | Hours of Operation | |
| Fire Department | 315 East 200 South, 7th Floor | 24/7 | |
| Fire Station No. 1 | 211 South 500 East 84111 | 24/7 | |
| Fire Station No. 2 | 270 West 300 North 84103 | 24/7 | |
| Fire Station No. 3 | 1085 East Simpson Ave. 84106 | 24/7 | |
| Fire Station No. 4 | 830 East 11th Ave, 84103 | 24/7 | |
| Fire Station No. 5 | 1023 East 900 South 84105 | 24/7 | |
| Fire Station No. 6 | 948 West 800 South 84104 | 24/7 | |
| Fire Station No. 7 | 273 North 1000 West 84116 | 24/7 | |
| Fire Station No. 8 | 15 West 1300 South 84115 | 24/7 | |
| Fire Station No. 9 | 5822 West Amelia Earhart Drive 84116 | 24/7 | |
| Fire Station No. 10 | 785 Arapeen Drive 84108 | 24/7 | |
| Fire Station No. 11 | 581 North 2360 West 84116 | 24/7 | At the Airport |
| Fire Station No. 12 | 4030 West 1085 North 84116 | 24/7 | At the Airport |
| Fire Station No. 13 | 2360 East Parley's Way 84109 | 24/7 | |
| Fire Station No. 14 | 1560 Industrial Road 84104 | 24/7 | |
| Police Department | 315 East 200 South | 24/7 | |
| Police Pioneer Precinct | 1040 West 700 South | 24/7 | |
| Golf Courses | Maintenance & Operations 2375 South 900 East | Seasonal Operations | |
| Bonneville Golf Course | 954 Connor Street | | |
| Forest Dale Golf Course | 2375 South 900 East | | |
| Glendale Golf Course | 1630 West 2100 South | | |
| Mountain Dell Golf Course | Parley's Canyon | | |
| Nibley Golf Course | 2730 South 700 East | | |
| Rose Park Golf Course | 1386 North Redwood Road | | |
| Wingpointe Golf Course | 3602 West 100 North | | |
| Airport Authority | 776 North Terminal Drive | 24/7 | |
| Arts Council | 54 Finch Lane (Reservoir Park) | Mon-Fri 8:00-5:00 | |
| City Cemetery | 200 "N" Street | Mon-Fri 8:00-5:00 | |
| Emergency Management Division/Engineering Division | 349 So. 200 East Suite 200 | Mon-Fri 8:00-5:00 | |
| Forestry (Urban Forester) | 1965 West 500 South Second Floor | Mon-Fri 8:00-5:00 | |
| Gallivan Center | 239 South Main | Mon-Fri 8:00-5:00 | |
| Impound Lot | 2150 West 500 South | Mon-Fri 8:00-5:00 | |
| Parking Enforcement | 212 East 600 South | Mon-Fri 8:00-5:00 | |
| Streets and Sanitation | 1990 west 500 south | Mon-Fri 8:00-5:00 | |
| PSMF Fueling Station | 1995 West 500 South | Mon-Fri 8:00-5:00 | |
| Traffic Control Center | 260 East 600 South 84111 | 24/7 | |
| Public Utilities | 1530 South West Temple | Mon-Fri 8:00-5:00 | |
| Public Utilities Shops/Dispatch | 1530 South West Temple | 24/7 Hot Line | |



Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | |
|---|------------------------------------|--|--|
| Justice Courts | 333 S. 200 East | Mon-Fri 8:00-5:00 | |
| Emergency Mgmt | 650 Redwood Road | 24/7 | |
| New Hope Center (utilities off) | 1102 W. 400 N. | | |
| Brine Shrimp Warehouse (gas off) | 955 S. West Temple | | |
| Barnes Banks Building | 431 S. 300 East | | |
| IMS Transmitter | Ensign Peak | | |
| Libraries | Address | Hours of Operation | |
| Main Library | 210 East 400 South | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday 1-5 p.m | |
| Anderson Foothill Library | 1135 south 2100 East | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday closed | |
| Chapman Library | 577 South 900 West | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday closed | |
| Corrine and Jack Sweet | 455 F Street (9 th Ave) | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday closed | |
| Day- River side | 1575 west 100 north | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday 1-5 p.m | |

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Salt Lake City Corporation

Department of Public Utilities

1530 South West Temple

Salt Lake City, UT 84115

CITY OWNED/OPERATED FACILITIES

| | | | |
|------------------------|---|--|--|
| Glendale | 1375 South Concord (1240 west) Salt Lake City, Ut. 84104 | Mon-Thu-10am-9am Fri-Sat – 10am-6pm Sun 1-5pm | |
| Sprague Library | 2131 south 1100 East | Mon.-Thurs. 9 a.m.-9 p.m. Fri.-Sat. 9 a.m.-6 p.m. Sunday 1-5 p.m | |
| Marmalade | 500 North 300 West Salt Lake City, UT 84103 | Opening Fall/Winter 2015 | |
| Water Treatment plants | Address | Hours of Operation | |
| Big Cottonwood | 4101 E. Big Cottonwood | 24/7 | |
| City Creek | 2200 N. City Creek Canyon | 24/7 | |
| Parley's | Exit 1331 I-80 | 24/7 | |
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**CITY OWNED/OPERATED FACILITIES
High Priority Facilities**

| Facility Name | Address | Hours of Operation | Contact |
|---------------------------|----------------------------------|--------------------|-------------------------------|
| Fleet | 1990 west 500 south | Mon-Fri 8:00-5:00 | |
| Streets and Sanitation | 1990 west 500 south | Mon-Fri 8:00-5:00 | Joe Aguilar (801) 535-6946 |
| Public Utilities | 1530 South West Temple | 24/7 | Randy Bullough (801) 483-6731 |
| Parks Department | 1965 West 500 South Second Floor | Mon-Fri 8:00-5:00 | Lee Bowinkle |
| Forestry (Urban Forester) | 1965 West 500 South Second Floor | Mon-Fri 8:00-5:00 | Tony Gilot (801) 972-7800 |
| Golf | 2375 South 900 East | Mon-Fri 8:00-5:00 | David Terry |
| SLCFD | | 24/7 | |
| SLCPD | 315 East 200 South | 24/7 | |
| Galivan Center | 239 South Main St. | Mon-Fri 8:00-5:00 | |
| Impound Lot | 2150 West 500 South | Mon-Fri 8:00-5:00 | |
| Water Treatment Plants | | 24/7 | Bill Meyers (801) 483-6780 |
| Big Cottonwood | 4101 East Big Cottonwood | 24/7 | |
| City Creek | 2200 North City Creek Canyon | 24/7 | |
| Parley's | Ext 1331 I-80 | 24/7 | |
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