NORTHWEST QUADRANT MASTER PLAN

Adopted August 16, 2016

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Cover: View of undeveloped lands in the Northwest Quadrant looking South

COMMUNITY VISION

01 Community Vision

The Vision

The Northwest Quadrant will be a new, sustainable area of Salt Lake City that:

- Respects the unique nature of the Great Salt Lake and surrounding environment for current generations and preserves sensitive natural environments for future generations.
- Includes an ecologically-oriented industrial park that helps drive the City's economic and natural resource protection goals;
- Is an economic engine for the City, region and State.

Development in the Northwest Quadrant should accomplish the following:

- Environmental sensitivity - providing places for people to work and recreate while protecting natural resources and wildlife habitat;
- A high quality, well-designed built environment;
- Well-connected with good transportation linking people to jobs and other parts of the City and region, and linking businesses to goods and services by vehicle, rail, transit, air, bicycle and foot.
- Economically thriving-with a flourishing and diverse local, regional and global economy.
- Well-served with public and private services that are appropriate to people's needs and accessible to all.

The Land Use Plan

The future land use framework illustrates a conceptual idea of the Plan's Vision. It is based on three frameworks: Environmental, Economic, and Transportation.

Sustainable Development

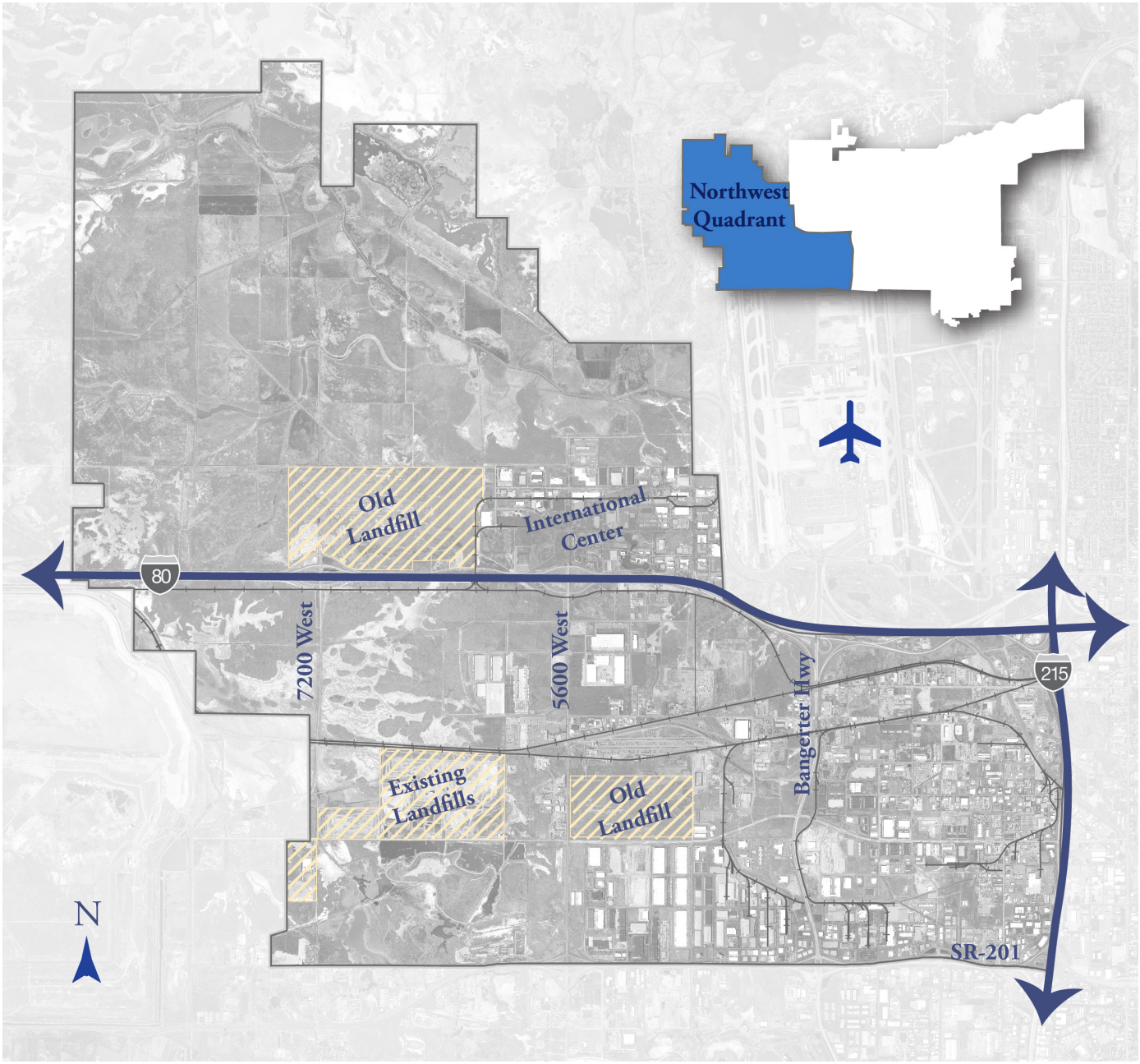
The Northwest Quadrant has tremendous potential to lead the City and the region in sustainable development, which includes the implementation of energy efficiency measures to reduce nonrenewable energy reliance; enhance environmental quality; conserve natural resources and ensure sustained economic vitality.

Achieving this requires that decisions and choices made today about development in the Northwest Quadrant should not limit the choices and opportunities of future generations. To that end, the Northwest Quadrant needs to safeguard and, in some areas, enhance resources, prevent harm to the natural environment and human health, and promote economic sustainability to benefit current and future residents of the City and region.

FOUNDATION

Background

The Northwest Quadrant, Salt Lake City's Western edge, includes approximately 28,000 acres of land, which accounts for about 40% of the total area of Salt Lake City. More than 9,000 acres of land north of Interstate 80 (I-80) is undeveloped. This represents one of the largest undeveloped areas along the Wasatch Front. This area, which is located west of Interstate 215 (I-215), with immediate access to I-80 and only minutes from Downtown, contains prime transportation access to highways, planes, and trains. It is adjacent to the Salt Lake International Airport and the location of most of the City's industrial and manufacturing sectors. The area also includes important environmentally sensitive lands (including the Great Salt Lake shore lands, bird nesting areas, and wildlife habitat), ongoing mining and landfill operations, and lands that should be evaluated for potential reclamation.



Goals of this Plan

The *Northwest Quadrant Master Plan* represents a unique opportunity to make informed decisions on an area-wide scale in an effort to create one of the most economically diverse and sustainable areas in the City and preserve the natural environment along the Great Salt Lake.

This plan helps the City achieve citywide goals outlined in Plan Salt Lake and regional goals identified in Envision Utah's Wasatch Choices 2040. These goals include protecting the environment and maintaining economic vitality.

Achieving this vision for the Northwest Quadrant requires clear direction and attainable goals that address the central issues facing the Northwest Quadrant and the City as a whole. To do this, the plan must:

- Preserve natural open spaces and sensitive areas to sustain biodiversity and ecosystem functions.
- Balance protection and management of natural lands with access to recreational opportunities.
- Ensure that the City responds effectively to the social, environmental and developmental concerns.
- Encourage a resilient and diversified economy.
- Support quality jobs that include non-polluting and environmentally-conscious high-tech and manufacturing sectors.
- Promote industrial development that is compatible with the environmentally-sensitive nature of the area.
- Build a consistent industrial development pattern south of I-80.
- Provide services and infrastructure that is similar to other parts of the City.

Assumptions

This plan is based on several assumptions and values that have been identified through this planning process as well as other citywide planning processes.

- Growth will occur and can be beneficial if managed correctly.
- Environmentally-contaminated areas will be properly addressed, taking into account future land use and the cost of remediation.
- Management and protection of critical resources is necessary.
- The area's unique environment needs to be preserved.
- The supply of essential services must be coordinated with City agencies in a cost-effective manner.

Fulfilling these goals will be challenging. Nevertheless, City leaders, technical and advisory committees, stakeholders and the public are motivated by the challenge of creating a sustainable area of the city in an economically viable fashion and are committed to a successful outcome.

Existing Conditions

Physical Description

The Northwest Quadrant is a vast, flat tract of land in the western portion of Salt Lake City, totaling approximately 43 square miles or nearly 28,000 acres. The Great Salt Lake forms a northwestern boundary for the northern half of the Northwest Quadrant: to the west lie the Oquirrh Mountains; to the east are the Salt Lake City International Airport, and the West Salt Lake Community; and Magna and West Valley City lie to the south.

Historically, portions of the Northwest Quadrant, north of I-80, have been used for agricultural purposes. These agricultural uses include farming, grazing, hunting and fishing, housing for individuals working the land, and wildlife and habitat preservation. Today, several hundred acres include a working ranch (Gillmor) that has been recognized as a Centennial Ranch, being operated by the same family for over 100 years. In the past, large canals and ditches were dug for irrigation purposes and to carry spring runoff from the mountains to the Great Salt Lake, and more recent stormwater management systems have bifurcated the natural water regime. Habitat and scenic resources found in the area include the Bailey's Lake floodplain. While outside the Northwest Quadrant, it is noteworthy that as mitigation for mining operations, Kennecott Utah Copper has established the Inland Sea Shorebird Reserve adjacent to the western boundary.

The land in the Northwest Quadrant, which includes low elevations and highly liquefiable soils, poses challenges to development in the area north of I-80. Additionally, this area adjacent to the Great Salt Lake is highly affected by seasons, drought and flood cycles, groundwater levels, changing lake levels and impacts from human activities, including recreation, vandalism, illegal dumping, noise, stormwater runoff, and closed landfills.

Existing development is comprised of a significant number of industrial land uses, the International Center, the City's western industrial warehouse and distribution facilities, mining operations, and landfills. Significant nearby development includes the Salt Lake City International Airport, the Inland Sea Shorebird Reserve and the Rio Tinto, Kennecott Utah Copper tailings impoundment.

Great Salt Lake

The Great Salt Lake is the fourth largest terminal lake in the world. There is no outlet except for evaporation. Because of variations in inflow water and evaporation, the elevation of the lake changes from year to year. The lake has fluctuated about 20 feet over a period of a few decades. The last recorded peak static elevation was 4,212 feet (NGVD29[1]) measured in 1986 and 1987. Water levels also reached this elevation in 1866 and 1867. The historic low water elevation for the period of record (1845-present) was recorded at 4,191 feet (NGVD29) in 1963. At the time this plan was written, the elevation of the lake measured 4,193 feet (NGVD29). Wind and wave action on the lake poses a hazard risk of five feet above the static lake elevation, making the hazard risk elevation 4,217 feet. The Utah Department of Natural Resources considers the flood plan to be 4,217 feet (NGVD29). For development purposes, Salt Lake City recognizes this elevation and does not permit habitable development below this elevation.

[1] *Elevations referenced in this document are based on the National Geovetic Vertical Datum of 1929, also referred to as NGVD29*

Natural Hazards

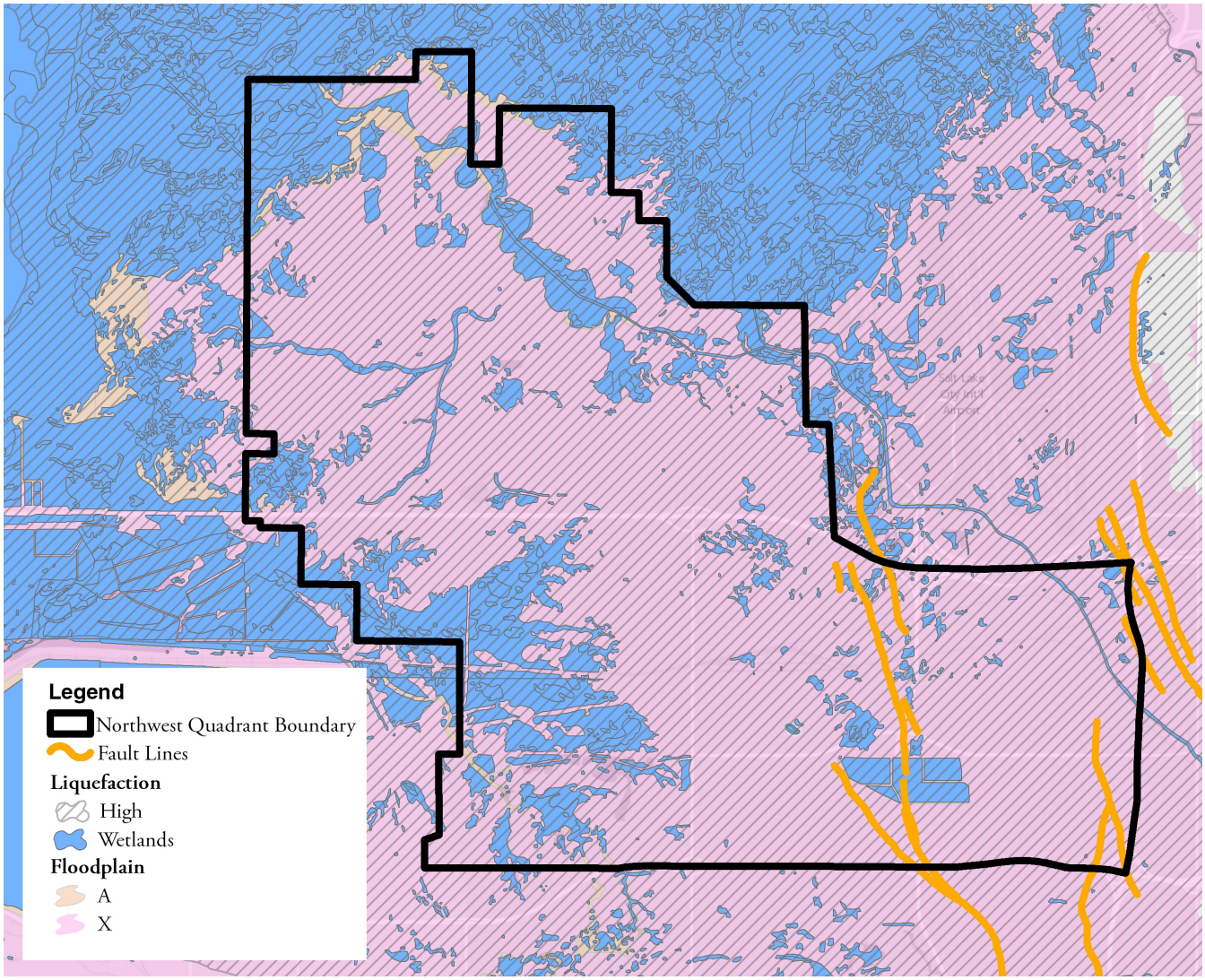
The lands in the Northwest Quadrant may be susceptible to natural hazards and will pose challenges to potential development. Much of the land, especially north of I-80, contain wetlands, highly liquefiable soils, flood plains, and fault lines. Each of these on their own pose significant challenges, though the cumulative impact of these natural challenges will further impose challenges to development.

Wetlands: The proximity to the shores of the Great Salt Lake naturally bring a natural presence of wetlands in the area. Wetlands are vital for wildlife habitat and ecosystem functions and any type of proposed development on wetlands require remediation to counteract the loss of wetlands.

Liquefaction: Areas of the Northwest Quadrant contain highly liquefiable soils. Liquefaction is determined by soil structure. Building in highly liquefiable areas requires additional building needs in which soil stabilization methods are employed.

Flood Plain: The area north of I-80 contains canals and the areas adjacent to these canals are prone to flooding during high precipitation and high flow periods.

Fault Lines: The eastern portion of the Northwest Quadrant contains fault lines that can further impact development.



Zoning & Land Use

Current Zoning. As shown in Figure 1, the Northwest Quadrant is currently zoned Agriculture, Manufacturing, General Commercial, and Open Space. Vacant areas are primarily zoned Manufacturing, Agriculture, or Open Space.

The Agricultural zoning is intended to act as a holding zone until final zoning is determined with the adoption of a master plan for the area. The existing Agricultural zoning allows for single family development on 10,000-square-foot lots.

Other applicable regulations include the Landfill Overlay, the Airport Overlay Zone, which restricts certain development types around the airport; and the Lowland Conservancy District, which protects canals, drainages, and lowland areas from substantial development impacts.

Current Land Use. As shown in Figure 2, approximately three-quarters of the land in the Northwest Quadrant is undeveloped, with uses including wildlife management, ranching, farming, and brownfields. Thirty-five percent of the community consists of agricultural uses. A relatively small group of property owners control the majority of the Northwest Quadrant's undeveloped land, providing a unique opportunity for quality planning. Developed lands consist of light industrial, intermodal facilities, airport related uses, distribution, commercial, and office. The tailings impoundment and existing landfills are located adjacent to industrial property. A major regional rail line and extensive highway infrastructure, which exist throughout the area, support many distribution and warehouse businesses. The Lee Kay Center for hunter education and shooting range facilities, owned by Division of Wildlife Resources and located between 1350 South and 2100 South and west of 5650 West, is the largest public open space in the Northwest Quadrant.

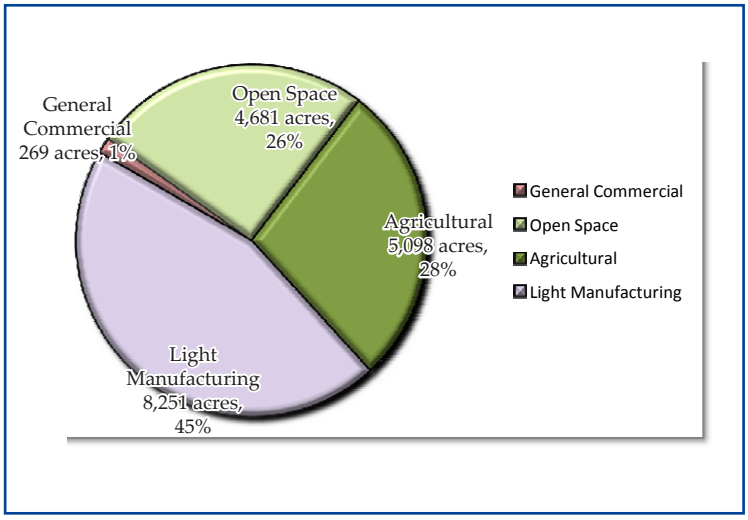


Figure 1. Zoning by acreage

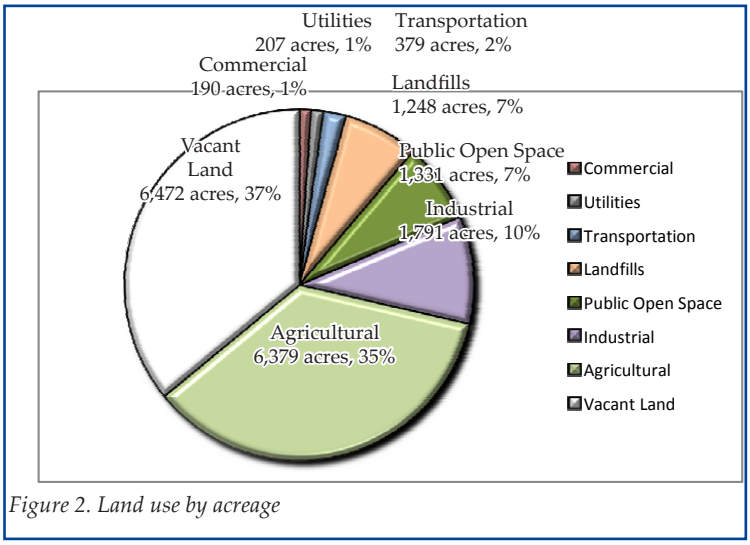


Figure 2. Land use by acreage

Demographics & Businesses

The Northwest Quadrant is one of the City's key employment areas. It contains numerous industrial warehousing and distribution uses. Including the International Center and the Salt Lake International Airport, approximately 60,000 jobs exist within and immediately adjacent to the Northwest Quadrant.

The Governor's Office of Management and Budget has produced economic projection estimates that forecast a large demand for new employment uses in the region. In 25 years, Salt Lake County should expect to add approximately 251,000 new jobs (31% growth), focusing on education and health services; professional and business services; government; and trade, transportation, manufacturing, and utilities sectors.

Due to the existing transportation network, large lot sizes, low vacancy rates and a focus on industrial and warehousing uses, the Northwest Quadrant could fulfill the City's need for industrial land, annually supporting over 250,000 square feet per year of industrial space. New hotel uses will also be supported in the area.

Roadways & Transit

I-80 bisects the Northwest Quadrant, I-215 borders the east edge, and SR-201 traverses the south edge; all provide regional access to developed sites. North of I-80, large expanses of undeveloped land are served by unmaintained dirt roads.

The Airport light rail line was completed in 2013 and connects the airport to Downtown and the regional transit system. This plan identifies the possible extension of the Airport line as a way to provide transportation options to the Northwest Quadrant. The Utah Transit Authority (UTA) operates five bus routes, serving various destinations in the Northwest Quadrant. Some routes serve the International Center, while others serve the industrial park area between California Avenue and SR-201.

Planned Transportation Improvements. A great opportunity exists to create a multi-modal, environmentally-sensitive, and well-connected transportation system that provides appropriate transportation choices. The 2006 Salt Lake City Transportation Master Plan identifies several roadway and transit improvements within and adjacent to the Northwest Quadrant.

The Mountain View Corridor has undergone an Environmental Impact Statement (EIS) to determine the most appropriate location for a new North/South transportation corridor for the western side of the valley. UDOT's preferred alignment runs just west of 5600 West, and involves a system to system connection approximately halfway between the two existing interchanges on I-80. The proposal also includes high-capacity public transit along 5600 West.

Planned improvements for arterial streets focus on increasing capacity near existing job centers, specifically by providing a connection north of the International Center and improving roadways around California Avenue. Planned improvements for collector streets focus on the area between I-80 and 700 South and around 5600 West, and include 5700 West, 6600 West, 5500 West, 5200 West, and 300 South.

Roadway	Segment	AADT
I-80	Bangerter to Wright Brothers Drive	54,045
I-80	West of 5600 West	26,885
Bangerter Hwy.	SR-201 to I-80	32,700
SR-201	Bangerter to 5600 West	66,800
5600 West	Bangerter to I-80	19,565
Amelia Earhart	Entire corridor	1,495
5600 West	North of I-80	3,305
700 South	Bangerter to 5600 West	1,545
California Avenue	Bangerter to 5600 West	7,775

Average annual daily traffic for major roads

Open Space, Trails & Recreation

Due to its undeveloped nature, there is presently very little in the way of existing developed parks, trails, and recreation facilities in the Northwest Quadrant. There is an off-street shared use trail along West North Temple and Lee Kay to the airport that connects to dedicated bike lanes on West North Temple. A dedicated trail head for this off-street section of the Airport trail lies at the intersection of West North Temple and North 2400 West. Due to airport security regulations, the trail is open to the public during the day but is restricted at night and during times of national emergency.

Photo Credit: Wayne Martinson

Located just west of the Northwest Quadrant, the Lee Creek area is a public access area along the south shore of the Great Salt Lake.

Passive recreation and trails are envisioned as significant components within the areas designated within this Master Plan.

Salt Lake City International Airport

The Salt Lake City International Airport is located east and adjacent to the Northwest Quadrant boundary. The Airport is currently beginning a major terminal redevelopment program that will result in reconstruction of the passenger terminals into a single facility, new concourses, new rental car and maintenance facilities, surface parking areas, a new parking structure, and relocated entrance roads. The construction area for the terminal redevelopment program is outside of the Northwest Quadrant boundary area.

A May 2006 report titled, "Salt Lake City International Airport, Airport Layout Plan" identifies a potential future need for a new parallel runway. The timing for a new runway is uncertain, however, the study recommends that additional capacity should be considered before the airport begins to experience significant operational delays. An Airport Layout Plan is a document required by the Federal Aviation Administration and is intended to show the layout of existing and proposed airport facilities. A future runway has been shown on the Airport Layout Plan paralleling the western most existing runway. This future runway is shown to be located in the eastern portion of the International center and inside the Northwest Quadrant boundary. Before runway construction could start, a number of considerations would require addressing such as relocating/bridging the surplus canal, relocating major power lines, relocating an electrical sub-station, re-routing two major natural gas pipelines, reviewing airspace considerations, delineating wetlands and mitigating impacts, initiating an environmental review process and reviewing conservation practices, purchasing land and buildings, reconstructing a portion of I-80, and relocating road systems. The future operational need and location for a new runway is unknown at this time, however, it is anticipated that as the region's population, income, and economy continue to grow, the Airport's capacity will likewise increase to support the anticipated growth.

Utah State Prison

The State of Utah plans to relocate the state prison to an area within the Northwest Quadrant of Salt Lake City. The proposed location is located within the development area near the northwest corner of the Northwest Quadrant. Relocating the prison to this area will bring infrastructure and will guide the placement of roads, water lines, and sewage lines. In addition, the placement of this infrastructure may result in development pressure north of I-80.

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Landfill Sites

The Northwest Quadrant contains five landfill sites. Two of those landfill sites have been discontinued, and the other three remain in operation. The discontinued landfills are the North Temple landfill and the Cannon Pioneer landfill. The condition of these old landfill properties should be analyzed and evaluated, so that the potential remediation of those properties can be addressed when the demand for developable property in this area creates a market value sufficient to justify the costs of reclamation. The currently operating landfills include the Salt Lake Valley Landfill, the Mountain View Landfill, and the Construction Waste Landfill.

North Temple Landfill

The North Temple Landfill is located at approximately 7200 West and I-80. and was operated from 1959 to 1979. The landfill covers approximately 790 acres.

The North Temple Landfill has been accepted into the voluntary clean-up program administered through the Utah Department of Environmental Quality, Division of Environmental Response and Remediation.

Cannon Pioneer Landfill

The Cannon Pioneer Landfill is located at approximately 4800 West and California Avenue and was operated as a landfill from 1968 until 1975. The landfill covers an area of approximately 250 acres.

This Master Plan, and the development opportunities described herein represent a cooperative effort by many who recognize the significant environmental impacts these two landfills have and will continue to create in this area. Remediation of these sites is necessary for the Northwest Quadrant vision to be realized.

Salt Lake Valley Landfill

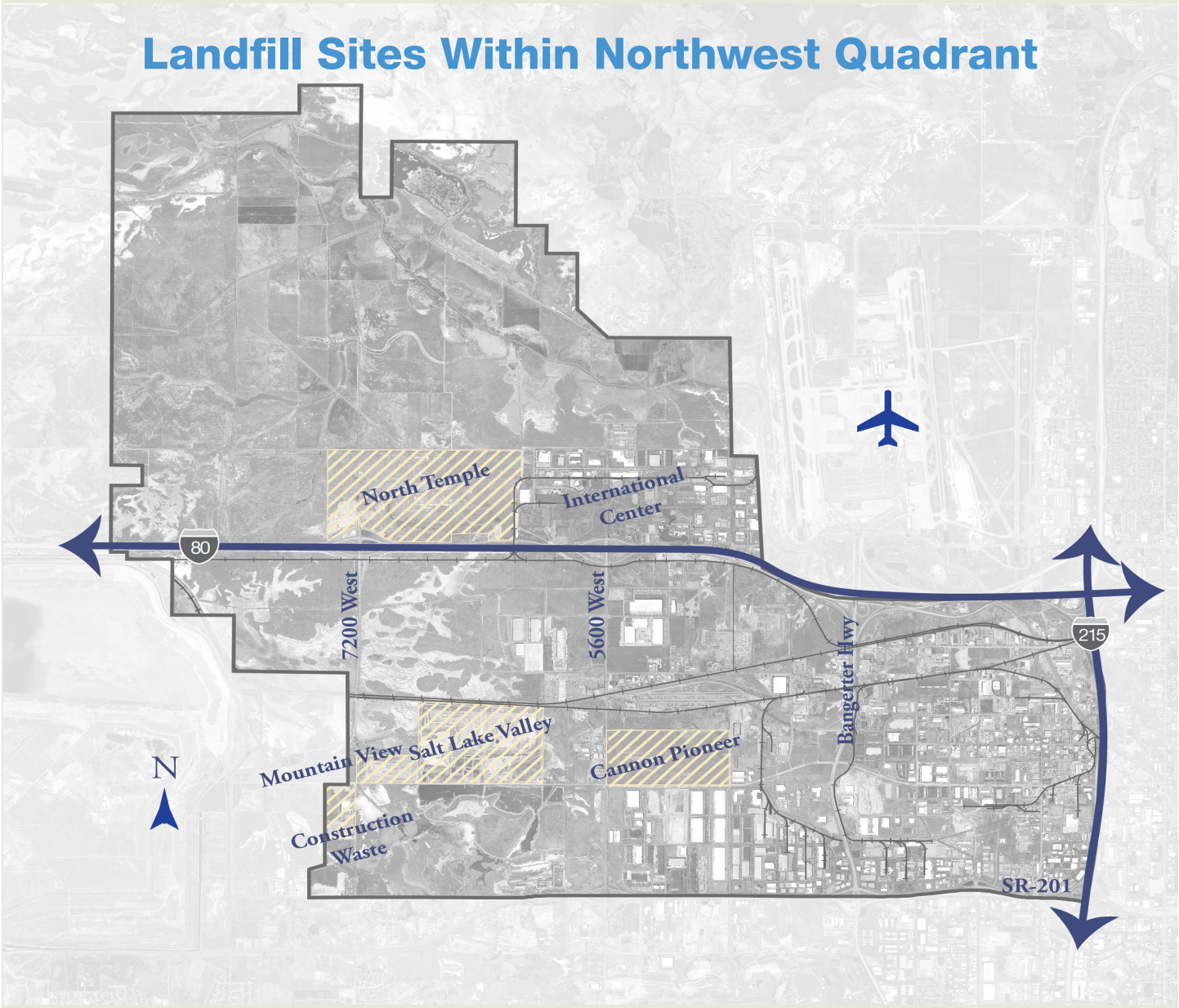
The Salt Lake Valley Landfill is located at approximately 6000 West and California Avenue and has been in operation since 1979. This landfill currently covers approximately 537 acres. There are no plans to close the current landfill operation at this site. The current landfill has not reached its capacity, and it is anticipated that this landfill will continue in operation for many years. Furthermore, due to the nature of current environmental regulations governing landfill operations, it is also easier and less expensive to expand an existing landfill than to open a new landfill. As such, it is anticipated that as the growth in the Salt Lake Valley area continues, the current landfill operations may likely be expanded further into adjacent areas as necessary to facilitate the need for additional landfill capacity.

Mountain View Landfill

The Mountain View Landfill is located at approximately 7000 West and California Avenue. The landfill covers approximately 77 acres and accepts non-hazardous construction/demolition waste and regulated asbestos contain material.

Construction Waste Landfill

The Construction Waste Landfill is located at approximately 7200 West and California Avenue. The landfill covers approximately 70 acres and accepts non-hazardous construction/demolition waste and household waste resulting from abatement, rehabilitation, renovation, and remodeling of homes and other residences.



Regionally Significant Scenic & Wildlife Resources

The Northwest Quadrant is adjacent to uplands and wetlands located along the south shores of the Great Salt Lake, which are managed for wetland and wildlife purposes from the Lee Creek Area to Farmington Bay. Rio Tinto manages the Inland Sea Shorebird Reserve and the National Audubon Society manages the Lee Creek Area and the Gillmor Sanctuary. The area also contains numerous duck clubs and is near the Farmington Bay Waterfowl Management Area in Farmington Bay.

Inland Sea Shorebird Reserve

Directly west of the Northwest Quadrant, Kennecott Utah Copper's Inland Sea Shorebird Reserve (ISSR) is a 3,670-acre shorebird and waterfowl reserve along the south shore of the Great Salt Lake. Created to offset the loss of wetlands affected by expansion of its tailings impoundment, it is now one of the largest wetland mitigation banks in the United States. By cleaning the site and directing and damming water sources to sustain the wetlands, the area was transformed into an important component within the Great Salt Lake ecosystem.

© Ann Neville

Consisting of five mitigation ponds and four additional ponds, the ISSR primarily serves as refuge for shorebirds and waterfowl, though deer, antelope,

rabbit, skunk, coyote, red fox, voles, field mice, chorus frogs, racers and gopher snakes are often spotted on site. The number of bird species at the ISSR has grown from 50 in 1995 to more than 150 today, including snowy plovers, American avocets, long-billed curlew, peregrine falcons and burrowing owls.

The ISSR is part of a larger ecological unit, Gilbert Bay, which was accepted in 2004 as a BirdLife International and National Audubon Important Bird Area, recognizing the area for its outstanding value to bird conservation.

South Shore Preserve

The South Shore Preserve is north of the Inland Sea Shorebird Reserve and includes the Gillmor Audubon Sanctuary as well as lands owned by the Utah Reclamation, Mitigation, and Conservation Commission. It consists of approximately 2,700 acres of wetlands and uplands. The land is part of the Great Salt Lake ecosystem and contains large portions of bird habitat. The National Audubon Society also manages the Lee Creek area, which is to the south west of the Inland Sea Shorebird Reserve and is just north of the frontage road that parallels I-80. The Lee Creek Area is open to the public for wildlife viewing.

Bailey's Lake

Bailey's Lake is a geological landform created by the Jordan River as it ran through the area during prehistoric time. For thousands of years the main channel of the river flowed south of Bailey's Lake. Alluvial materials deposited as the river slowed to enter the Great Salt Lake and built a large delta. Remnants of deltic features can be observed today between the Goggin Drain and I-80. When the river changed course and began flowing outside its previous channels and banks, it eroded unconsolidated Lake Bonneville sediments and cut deeply to create the incised channel meander, which today is referred to as Bailey's Lake. The Jordan River continued to alter its course, moving to the east to its present location, and no longer courses through Bailey's Lake, nor is it now within the Northwest Quadrant.

This landform extends over three miles in length and exceeds half a mile in width in some areas. The interface between the upland and Bailey's Lake is sudden, abruptly dropping in elevation. A system of wetlands occurs throughout this riverbed system.

LAND USE PLAN

Common Terms

Certain terms repeat throughout the Northwest Quadrant Plan. To gain a common understanding, these terms are explained in this section.

This plan uses the terms Guiding Principle and Policy to describe the directives of the plan.

- **Guiding Principle** means the general direction that the City, developers, and other stakeholders should take to implement this plan.
- **Policy** means the specific tasks that the City, developers and other stakeholders should perform to implement the master plan. A listed policy may contain a list of specifics that are intended to further explain or provide examples of how a policy may be implemented. The list is not intended to be exclusive.

The land use plan is based on a development boundary. The development boundary identifies areas that should be protected from development and areas where development is appropriate.

Public Process

For a variety of reasons, the public process for creating the *Northwest Quadrant Master Plan* has been drawn out over several years.

The first round of engagement occurred in 2007. Community outreach included 15 Planning Team meetings, 9 Master Plan Advisory Committee meetings, 11 Technical Resource Committee meetings, 60 stakeholder interviews, work sessions with property owners and environmental groups, site visits, and presentations to the Chamber of Commerce and Salt Lake City advisory groups. These include the Airport Board, Public Utilities Advisory Committee, Open Space Lands Advisory Board, Transportation Advisory Board, and the Business Advisory Board. In addition, public hearings were held before the Planning Commission and City Council, and two public workshops were held to seek input from the entire Salt Lake community.

The first public meeting, a Visioning Workshop, was held in January 2007 at the Salt Lake City Main Library to define the components of a new sustainable community. The purpose of the Visioning Workshop was to outline the Vision for the Northwest Quadrant by recommending components of a sustainable community. Attendees were asked to describe the components of a sustainable community that formed the basis of the Vision.

The second public meeting, a Big Ideas Workshop, was held in November 2007, and focused on review and refinement of the new sustainable community based on three frameworks: Environmental, Transit, and Centers. These three frameworks were overlayed to determine where development should occur. Sustainability indicators were later identified to evaluate the success of the final Master Plan in meeting the Vision.

Throughout 2008, the plan went through a series of renditions before reaching the Planning Commission in 2009. The Planning Commission recommended that the City Council adopt the plan.

No action was taken on the plan until 2015, when the council adopted a resolution supporting reconsideration of the *Northwest Quadrant Master Plan*, and noted that the following principles may be considered in the revisions to the plan:

- Preserve areas for future industrial, manufacturing, research or distribution.
- Preserve areas for future airport expansion and airport related industry.
- Create economic opportunities by linking the location of jobs with transportation and housing options.
- Concentrate commercial and industrial development near major transportation corridors.
- Encourage industrial and manufacturing uses adjacent to I-80 and around the intermodal rail facility.
- Preserve and enhance natural ecological functions.
- Conserve and manage open space for the continued health of the natural environment and enjoyment of the region's residents.
- Protect high quality nesting areas used by species sensitive to human intrusion.
- Determine areas of significant habitat and incorporate appropriate buffers between habitat and development areas.
- Plan for strong residential base to support mixed-use centers, and develop neighborhoods within walking distance of mixed-use centers.
- Design communities to encourage social interaction and support family and community relationships.
- Cluster residential development to minimize land consumption and create quality environmental conservation areas.

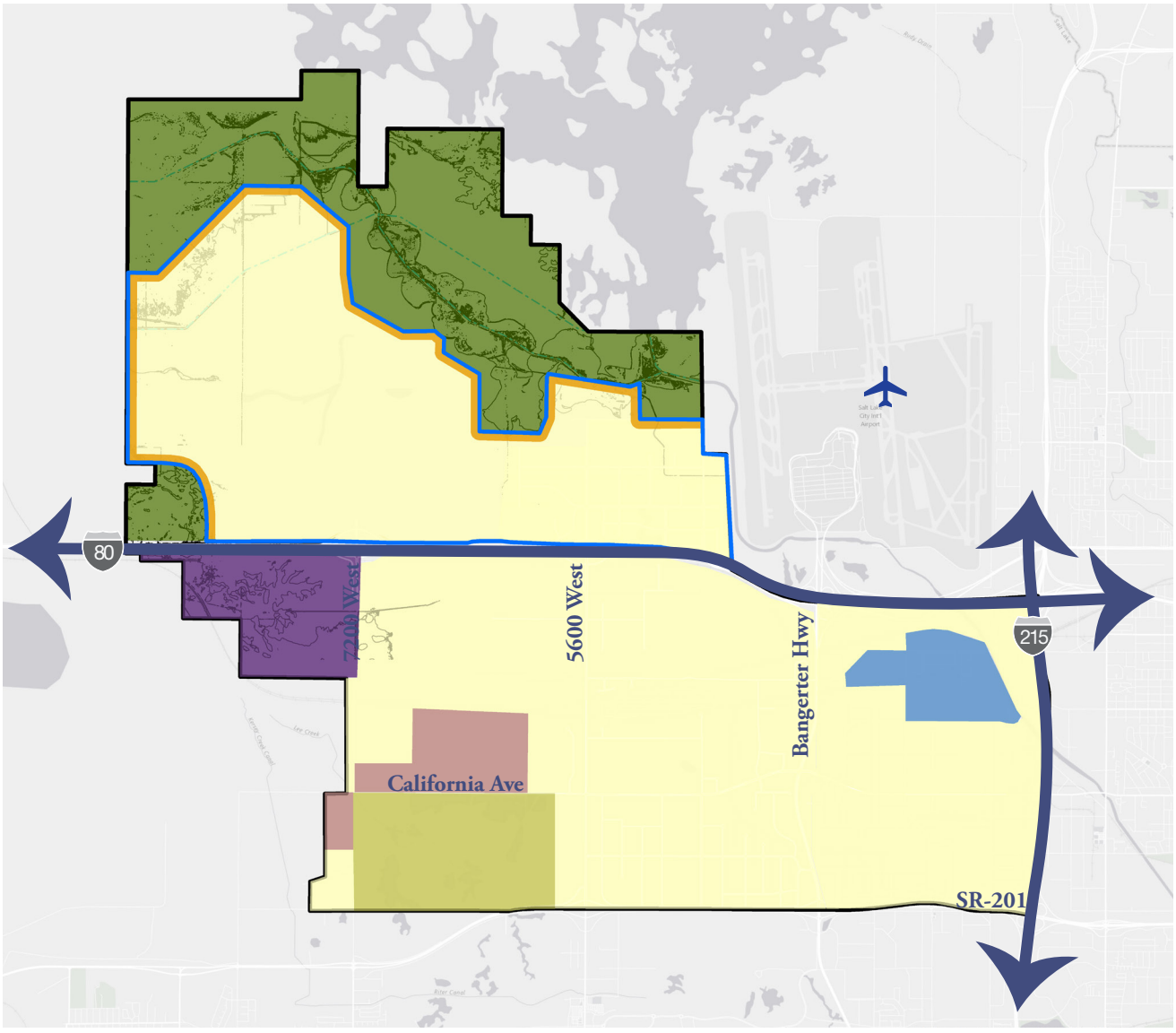
After the resolution was adopted, the City began formulating a process to update the plan. The 2009

version of the plan included a residential component. However, that version failed to be adopted. In addition, throughout the earlier process, a number of environmental groups cited issues with residential development in the area. Given this and the nature of existing uses in the area, the residential component was removed from this plan.

Attempting to capitalize on the previous engagement efforts, the City focused on reworking the plan and getting feedback on a revised version of the plan instead of starting from scratch. Throughout the summer of 2015, the City worked with various stakeholders and property owners, and the general public to develop this plan.

Other public engagement events included an Open House, a booth at a local festival, and an Open City Hall forum on the City's web site.

Northwest Quadrant Future Land Use Map



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Future Land Use

- Northwest Quadrant Boundary
- Canals
- Elevation 4,215 Feet and below
- Development Area North of I-80
- Natural Areas
- Light Industrial
- Eco-Industrial Buffer
- Heavy Industrial
- Open Space
- Landfill
- Mining

FUTURE LAND USE

This section describes each of the land use categories (no build/protection area, existing landfill, industrial/ manufacturing/office area) shown on the future land use map.

Natural Areas: areas that should remain free from development and intended to be maintained as native as possible, with very little human intrusion. The primary purpose of this area is for habitat preservation, to sustain biodiversity, and protect the sensitive lands along the shores of the Great Salt Lake, wetlands, playas, etc. This land is mostly below the 4,217 elevation, which is 5 feet above the historic measured high water line of the Great Salt Lake.

Open Space: Open spaces are areas that are intended to be preserved primarily for outdoor activities and recreation. These areas should be protected, but small buffers are acceptable.

Light Industrial: light industrial areas include uses that produce little or no pollution but require a lot of land. Uses such as warehousing, manufacturing, food production, assembly, and other similar uses are commonly found in the light industrial areas. Uses that require outdoor storage of new, clean materials are generally acceptable. Light industrial areas also include support services, such as restaurants, limited retail, fuel centers, and other uses necessary to support the light industrial uses.

Eco-Industrial Buffer: light industrial areas that include office, warehousing, maunfacturing, and other similar uses that are designed and built to minimize their impact on the environment and ecological systems. Areas within 400 feet of the Natural Areas and other environmentally sensitive lands will have additional development standards to help mitigate impacts on the natural areas. Incentives should be created for developments outside of the 400 feet area to encourage design that lessens impacts to the environment.

Heavy Industrial: uses that produce noise, odors, and other similar impacts are included in the Heavy Industrial category. These areas generally are somewhat isolated from other land uses and are not located adjacent to sensitive lands. Heavy industrial includes uses such as steel fabrication, the storage or manufacturing of chemicals or explosives, fuel storage and other uses.

Landfill: areas that currently operate as a solid waste disposal facility. Landfills are a necessary component of the City and create unique impacts. Land uses adjacent to landfills should expect to experience a certain level of nuisance, such as odor, noise and dust.

Mining: the Kennecott tailings pond is mostly located outside of the City, but the base of the tailings pond extends into the City. The planned expansion of the tailings pond encroaches further into the City. The pond is exempt from local zoning regulations.

Natural Areas

City Planning Context

The natural environment is a major influence on Salt Lake City. As a community, we value our natural setting and understand its necessity to sustain biodiversity, ecosystem functions and quality of life. The following plans provide overall guidance for this chapter.

Plan Salt Lake is the citywide vision plan that establishes a road map for future growth. It represents the commonly held values of residents, business owners and stakeholders and establishes a framework for future community master plans to carry out the greater vision for Salt Lake.

Minimize our impact on the natural environment. ***Plan Salt Lake Natural Environment Guiding Principle***

Plan Salt Lake describes the citywide values related to the natural environment and includes a number of initiatives related to it. Initiatives are those things that, collectively, will be worked on by the government, property owners, developers, residents, and others.

The City also has several citywide master plans that are applicable to the Northwest Quadrant. These include the *Transportation Plan* and the *Pedestrian and Bicycle Master Plan*. The Moving Forward section of the *Northwest Quadrant Master Plan* identifies how each item relates to the citywide initiatives outlined in Plan Salt Lake and other citywide master plans.

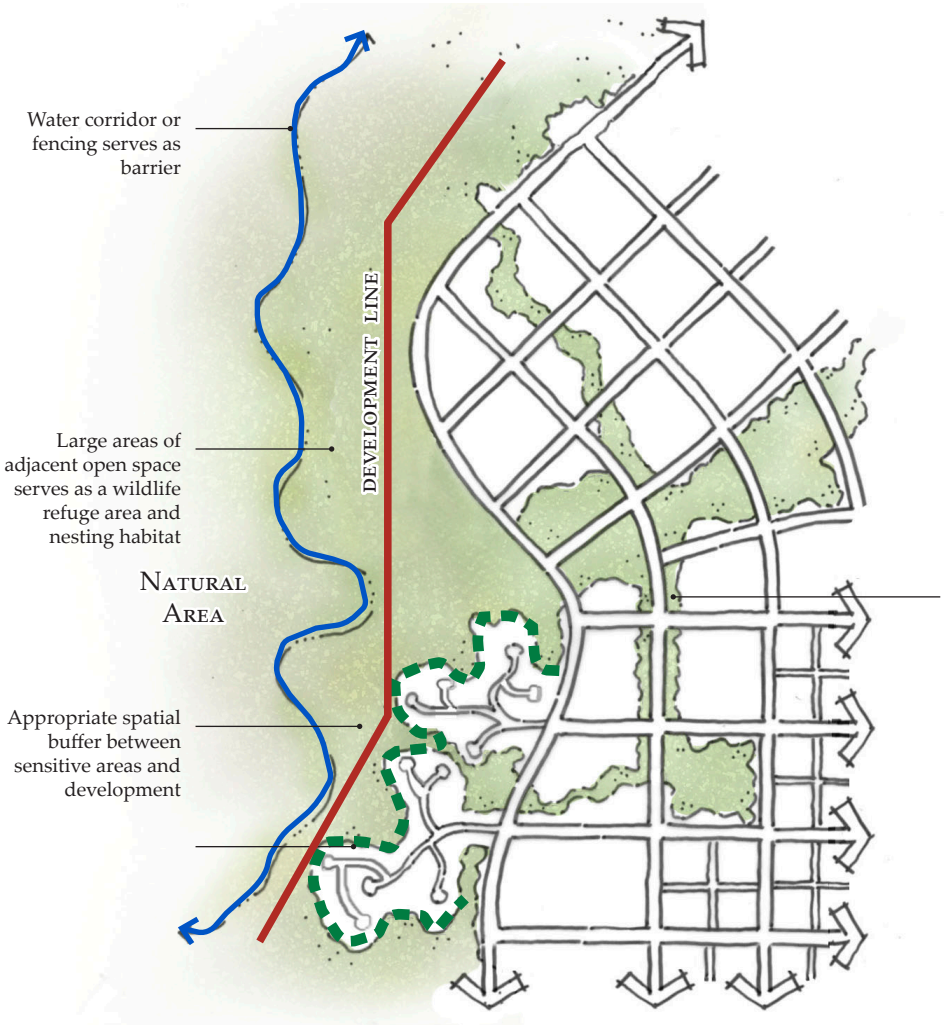
The Great Salt Lake is a very unique natural amenity to our region and an important national treasure. The shores of the lake are sensitive areas that provide critical wildlife habitat. The land is subject to natural fluctuations in water levels which creates the variety of habitats important to a balanced ecosystem. The lake has seen the water level change over the years, from historic high levels that inundated parts of the area north of I-80 to its current level almost 20 feet lower than its historic high.

Due to the environmentally-sensitive lands in the area, trails, bikeways, and other related facilities should not be placed within the "Natural Areas" of the plan. However, trails and bikeways are appropriate within areas designated as "Greenways and Open Space."

The Goals for the Natural Area are listed on the following page. To accomplish these goals, the *Northwest Quadrant Master Plan* identifies key policies and initiatives that are intended to provide general direction on how the goals can be achieved.

Goals of Natural Areas:

- Protect the Great Salt Lake Ecosystem
- Protect, conserve, and restore native wildlife habitat, wetlands, and water bodies
- Protect water quality
- Protect global flyways
- Protect people and property from flooding
- Support agricultural uses in the natural areas



Conceptual drawing showing the development that may occur within the development line and the preserved natural areas.

Natural Areas

Natural Areas, consisting of the most sensitive resources, are characterized by protecting existing natural habitat areas, restricting human access and eliminating impact from development. The Natural Areas are generally found north of the Development Line (refer to Future Land Use Map on page 24). The Natural Areas include lands that sit below an elevation of 4,215 feet above sea level (NGVD29). This elevation is important because it relates to the static historic high water level of the Great Salt Lake (4,212 feet) plus the natural phenomenon of waves developing on the lake that have the ability to reach up to five feet higher than the static water elevation. The State and the City both recognize this flood elevation.

Consolidated wetland systems, key uplands, and the Lake's floodplain are included in the Natural Area. Bailey's Lake and the edges of the Goggin Drain are within this area and could be restored, recreating the historic lake bed and enhancing wildlife habitat. Buffers, including a variety of barrier features such as open space, limited access roads, swales, fences, and berms should be considered and used as practicable to restrict access and limit damage. Recognizing that the lake typically fluctuates 20 feet, consideration should be given to wetlands and potential wetlands within that elevation range.

The lands included in the Natural Areas generally include:

- Lands within the 100 year flood plain;
- Lands that are already protected from development, including those under conservation easements;
- High functioning wetlands, such as open water, emergent marsh, wet meadow, transitional wet meadow and playas; and
- Baileys Lake Complex

MOVING FORWARD > > >

As we move forward with protecting the natural environment in the Northwest Quadrant, it is important to identify key guiding principles and policies that will help provide direction and aid in the decision making process. Each guiding principle is aimed at addressing the initiatives and direction identified in Plan Salt Lake and other applicable adopted master plans of the City. These Guiding Principles, Initiatives and Policies apply to those areas identified as "Natural Areas" on the future land use map and when any future amendments may occur to the "Natural Areas" or any additional land that may be identified as a Natural Area in the future.

GOAL 01

PROTECT THE GREAT SALT LAKE ECOSYSTEM.

Plan Salt Lake initiatives supported by this action:

Growth

- Preserve open space and critical environmental areas

Natural Environment

- Preserve natural open spaces and sensitive areas to sustain biodiversity and ecosystem functions.
- Protect water quality and supply.

Policy NA-1.1. Contribute to the protection of the Great Salt Lake ecosystem.

- Orient development/buffers to provide protection to high-functioning wetlands.
- Develop preservation priorities with conservation partners and property owners for lands to acquire and permanently protect as natural areas. Coordinate with the Salt Lake City Open Space Lands Master Plan to include these sites.
- Maintain biodiversity by conserving important, consolidated habitat and vegetation that support and are integrally connected with the Great Salt Lake ecosystem, including high-functioning water bodies, riparian corridors, wetlands, uplands, and playas.

GOAL 02

PROTECT, CONSERVE, AND RESTORE NATIVE WILDLIFE HABITAT, WETLANDS, AND WATER BODIES

Plan Salt Lake initiatives supported by this action:

Growth

- Preserve open space and critical environmental areas

Natural Environment

- Preserve natural open spaces and sensitive areas to sustain biodiversity and ecosystem functions.
- Protect water quality and supply.

Policy NA-2.1. Avoid disturbance or impacts to consolidated high-functioning wetlands or playa habitats in natural areas.

Policy NA-2.2. Create buffers from high-functioning, consolidated nesting areas.

- Utilize barriers such as natural features, open space, moats, berms, swales, roads, and fencing to protect natural areas from developments in areas where development is permitted.
- Use trails on the edges of natural areas to buffer wildlife habitat from development.

Policy NA-2.3. Conserve and manage plant and animal communities to preserve biodiversity and ecosystem functions.

- Protect landscapes that serve significant concentrations of wildlife and their nesting, breeding, brooding, feeding, and resting areas.
- Protect and buffer consolidated wetland areas associated with the Great Salt Lake to minimize habitat fragmentation.

Policy NA-2.4. Create a permanent conservation easement and develop a restoration plan for the City owned portion of the Bailey's Lake Complex.

Policy NA-2.5. Encourage the restoration of native habitats, water bodies, and wetlands. Use only native plants and control invasive species in natural areas.

- Encourage re-meandering of streams, where appropriate, to restore riparian and wetland functions.
- Encourage stream re-vegetation with appropriate native vegetation to support healthy riparian ecosystems.
- Protect the managed wetlands north of the Goggin Drain.

Policy NA-2.6. Coordinate with the Salt Lake City Open Space Lands Program for the planning and management of preserved and/or restored lands.

- Work with other partners to encourage adequate funding and the creation of funding mechanisms to ensure the long-term management of protected areas.
- For areas to be protected by conservation easements, determine who will own the easement, manage and monitor the area, and ultimately be responsible for funding maintenance.

Policy NA-2.7. Ensure stormwater is not diverted away from existing wetland complexes. Stormwater should return to the same flows as they currently exist.

Policy NA-2.8. Restrict development, including trails and public access areas, within the Natural Areas.

GOAL 03

PROTECT WATER QUALITY

Plan Salt Lake initiatives supported by this action:

Natural Environment

- Protect water quality and supply.

Policy NA-3.1. Protect water quality and availability.

- Adopt environmentally-sensitive water quality control measures within the Northwest Quadrant to prevent any further degradation of existing waterways than presently exists.
- Preserve water quality by protecting streams, reducing erosion, managing stormwater, and restricting fertilizer within the Northwest Quadrant appropriately.
- Protect against potential threats to water quality, including sedimentation from flooding and pollutant risks from stormwater/sewer overload or malfunction.
- Utilize natural stormwater pollution reduction solutions, such as bioswales, wetlands, pervious surfaces, and other techniques to preserve water quality where appropriate.
- Maintain, repair, renovate, and improve the banks of the Goggin Drain to prevent further erosion of the banks.
- Discourage the drilling of water wells in the plan area.

GOAL 04

PROTECT GLOBAL FLYWAYS

Plan Salt Lake initiatives supported by this action:

Natural Environment

- Preserve natural open space and sensitive areas to sustain biodiversity and ecosystem functions.

Policy NA-4.1. Require reasonable and appropriate buffers for development that are adjacent to natural lands, including the Inland Sea Shorebird Reserve.

Policy NA-4.2. Encourage the protection of the natural areas as a critical location of the global flyway for migratory birds. A flyway is the route between breeding and wintering areas.

- Continue to work at local, regional, and international levels to protect ecosystems along flyways.
- Support a collaboration of mechanisms for flyway conservation, both regionally and globally.
- Discourage loss and degradation of high-functioning Great Salt Lake wetlands within the Northwest Quadrant.
- Incorporate bird-friendly building design guidelines for the areas where development is allowed north of I-80.

GOAL 05

PROTECT PEOPLE AND PROPERTY FROM NATURAL HAZARDS

Plan Salt Lake initiatives supported by this action:

Government

- Protect people and infrastructure from crimes and natural hazards.

Policy NA-5.1. Restrict occupied development below the elevation of 4,217 feet (NGVD1929) and in the 100 year flood plain.

- Acknowledge that fill may be necessary for development within the developable areas
- Evaluate opportunities for fill to raise the elevation of a site to 4,217, without impacting sensitive lands and wildlife habitat.
- Restrict development in the 100 year flood plain.

Policy NA-5.2. Use incentives to address brownfield sites and landfills, taking into account land use and costs related to remediation.

Policy NA-5.3 Review the lowland conservancy overlay district and consider modifying its boundaries where it makes sense.

Policy NA-5.4 Consider requiring appropriate geotechnical studies, wetland mapping, and other studies prior to new development occurring north of I-80.

GOAL 06

SUPPORT THE CONTINUATION OF AGRICULTURAL USES IN AREA

Plan Salt Lake initiatives supported by this action:

Parks and Recreation

- Support urban agriculture and local food systems that produce healthy and sustainable food for the community, while providing valuable open space.

Policy NA-6.1. Support the continuation of agricultural uses in the area.

- Grazing is the historic use of the area and should be continued.
- Review and modify regulations and processes related to agricultural uses, agricultural subdivisions, and other related regulations that may make it difficult for grazing to continue.

Policy NA-6.2. Rezone the area north of I-80 incrementally to avoid tax implications for property owners who use their land for agricultural purposes.

Greenways and Open Spaces

City Planning Context

The Greenways in the Northwest Quadrant provide opportunities for people to experience the unique character of natural habitat of the shores of the Great Salt Lake. Greenways allow for trails, wildlife viewing and education opportunities in areas that are disconnected from the Natural Areas. In the context of the *Northwest Quadrant Master Plan*, the open spaces are generally found along the southern City boundary along SR-201 and are different than the Natural Areas (refer to Future Land Use Map on page 24).

Plan Salt Lake supports integrating open spaces into developed areas for the purpose of providing access to people and to some degree, supporting wildlife habitat and native landscapes.

Protecting the natural environment while providing access and opportunities to recreate and enjoy nature. Plan Salt Lake Parks and Recreation Guiding Principle

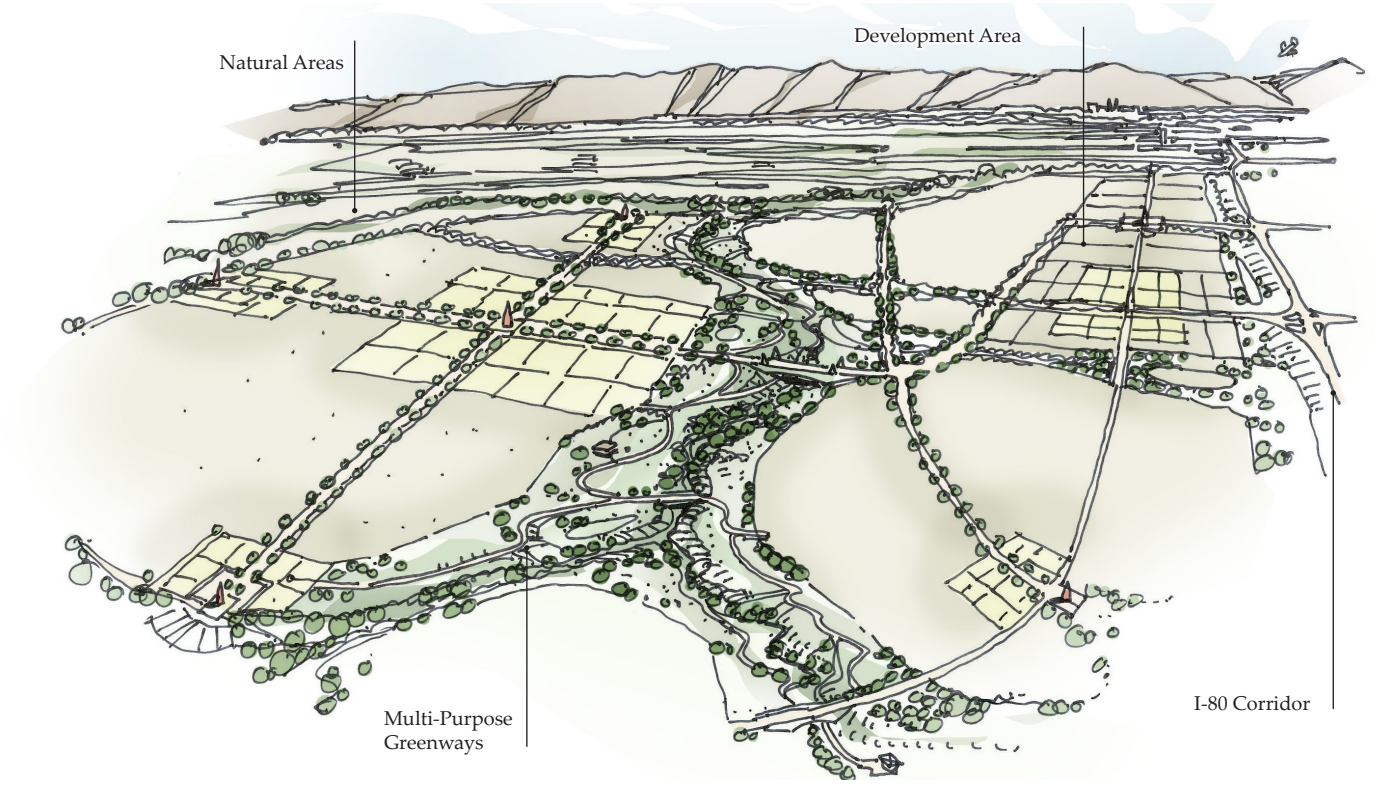
Greenways are areas that contain some wildlife habitat, low functioning wetlands, old river and stream channels, canals, uplands, and other similar lands. Greenways are generally found in the development area and may be disconnected from other wildlife habitat located in the Natural Areas.

Greenways can serve as natural areas, open space and multipurpose utility corridors, providing green infrastructure, creating pedestrian corridors, providing active recreational uses, and creating wildlife corridors. Greenways may connect the developed areas north and south of I-80 and provide links to regional trail corridors serving the greater Salt Lake Valley. Development may occur in some Greenways, but only if it is sensitive to the key natural features nearby.

Open Spaces are generally found south of the existing City and County Landfill. They consist of water bodies as well as recreational opportunities such as the Lee Kay Center for Hunter Education. A trail system is planned as part of the Mountain View Corridor project that the Utah Department of Transportation is undertaking. This trail has the potential to be a key link in a regional trail system and could connect the open spaces near SR-201 with the Greenways.

Goals of Greenways:

- Provide and maintain a high-quality, safe, and affordable trail network
- Support more developed recreation opportunities in the open spaces near SR-201.
- Foster public understanding and stewardship of the natural environment within Greenways.



MOVING FORWARD > > >

As we move forward with protecting the natural environment in the Northwest Quadrant, it is important to identify key guiding principles and policies that will help provide direction and aid in the decision making process. Each guiding principle is aimed at addressing the initiatives and direction identified in Plan Salt Lake and other applicable adopted master plans of the City. These Guiding Principles, Initiatives and Policies apply to those areas identified as "Greenways and Open Space" on the future land use map and when any future amendments may occur to the "Greenways and Open Space" or any additional land that may be identified as a Natural Area in the future.

GOAL 01

PROVIDE AND MAINTAIN A HIGH-QUALITY, SAFE AND AFFORDABLE TRAIL NETWORK

Plan Salt Lake initiatives supported by this action:

Natural Environment

- Increase education regarding stewardship of natural lands

Equity

- Ensure access to all City amenities and services

Policy GW-1.1. Develop trails that connect through the development area and to other trail systems.

- Encourage the development of interpretive features, such as signs, trails, boardwalks, and viewing towers.
- Design trails at an adequate width for multiple use and ongoing maintenance, and with adequate setbacks from adjacent roadways and private property.
- Provide both paved and non-paved trails to accommodate a variety of users and variety of experiences, from urban to natural landscapes.
- Integrate bike and pedestrian improvements into roadway designs. Designate bike routes to encourage commuting and traveling within the area by bicycling.
- Segregate trail use along highly-congested trail segments to avoid trail user conflicts. Encourage the use of signs, speed control devices, and other methods to promote safety in these areas.
- Require that all recreation facilities meet or exceed the requirements of the Americans with Disabilities Act (ADA).

Policy GW-1.2 Support the construction of the trail associated with the Mountain View Corridor and work on connecting the trail to the Greenways north of I-80.

Policy GW-1.3 Maintain access to the existing airport bike path.

Policy GW-1.4 Domestic pets should be prohibited along trailways.

GOAL 02

SUPPORT DEVELOPED RECREATION OPPORTUNITIES IN THE OPEN SPACES NEAR SR-201

Plan Salt Lake initiatives supported by this action:

Natural Environment

- Increase education regarding stewardship of natural lands

Equity

- Ensure access to all City amenities and services

Policy GW-2.1. Support the Lee Kay Center for Hunter Education in its current location.

Policy GW-2.2 Encourage more intensive active recreation uses to the south of I-80, including possibly a BMX/ ATV park.

GOAL 03

FOSTER PUBLIC UNDERSTANDING AND STEWARDSHIP OF THE NATURAL ENVIRONMENT

Plan Salt Lake initiatives supported by this action:

Natural Environment

- Increase education regarding stewardship of natural lands

Equity

- Ensure access to all City amenities and services

Policy GW-3.1. Develop opportunities to encounter the natural environment in order to appreciate and learn from it.

- Work with environmental groups to promote education materials related to the Great Salt Lake.
- Encourage the development of interpretive features within Greenways

Development Areas

City Planning Context

The Northwest Quadrant includes most of the industrial areas of the City west of I-215. The industrial parks, such as the International Center, provide quality jobs and contribute to a healthy and sustainable economy. The Development Areas within this plan refer to the remaining land uses that are neither the Natural Areas or the Greenways and Open Spaces within the Future Land Use Map (page 24). The proximity to Salt Lake International Airport, I-80, I-215, Bangerter Highway and the connection to a major freight rail line and intermodal rail transfer facility make the area highly competitive from an economic standpoint. No other location in Utah has this kind of access.

Environmental and economic goals are often not in sync with each other. This plan strives to balance the need for environmental protection and preservation with the need for a robust economy. This is accomplished by establishing the framework for an "eco-industrial park" north of I-80 and supporting continued growth in the industrial areas of the City south of I-80. This concept attempts to allow for development while incorporating environmentally-sensitive designs to reduce the impact on the natural environment.

The economic health of the City is an important indicator of the overall success of the City. Without a strong economy, many of the quality of life goals of the City would be difficult to realize. Complicating the economic health of the City is the fact that the Salt Lake City economy competes with other cities in Utah, the intermountain region and globally. The Northwest Quadrant provides the City with an economic advantage over other cities given its location and access.

Plan Salt Lake supports a balanced economy and the industrial sector is a major part of the City's economy. The *Northwest Quadrant Master Plan* is in some regards an economic development strategy. It provides direction on what types of businesses can thrive in an eco-industrial park and in our more traditional industrial areas.

A balanced economy that produces quality jobs and fosters an environment for commerce, local business, and industry to thrive. Plan Salt Lake Economy Guiding Principle

One of the big picture goals of *Plan Salt Lake* is to maintain the City as the center of Utah's economy and a leader in the Intermountain West. It recognizes the importance education has on our economic advantage and the role that changing technologies have in supporting entrepreneurship, investment and long term economic sustainability.

The goals and policies found in this section are intended to support the continued growth of our industrial areas and the potential for an eco-industrial park north of I-80. The Future Land Use Map provides a general description and location of each land use category, while the goals and policies provide direction and guidance on future development within the identified land use categories.

Potential for Growth

Compared to other metropolitan areas of approximately the same size, Salt Lake City could support several additional centers without competing with Downtown. The 2007 Update to the Envision Utah Values Study found that people prefer future growth within existing communities or within centers. Currently boasting 30,000 existing jobs within and adjacent to the Northwest Quadrant, the area already has a substantial employment base.

The Northwest Quadrant represents the largest economic development opportunity along the Wasatch Front. Over 60,000 employees could one day work in the Northwest Quadrant. A new employment center forms an expanded economic center, including mid-rise buildings, walkable office/commercial, and a local and regional transit hub, creating an appropriate gateway to Salt Lake City.

The industrial base of Salt Lake City is ensured through the identification of additional industrial lands, reuse of underutilized industrial lands, redevelopment, and the cleanup of key brownfield sites. This protects the employment and industrial base of Salt Lake City.

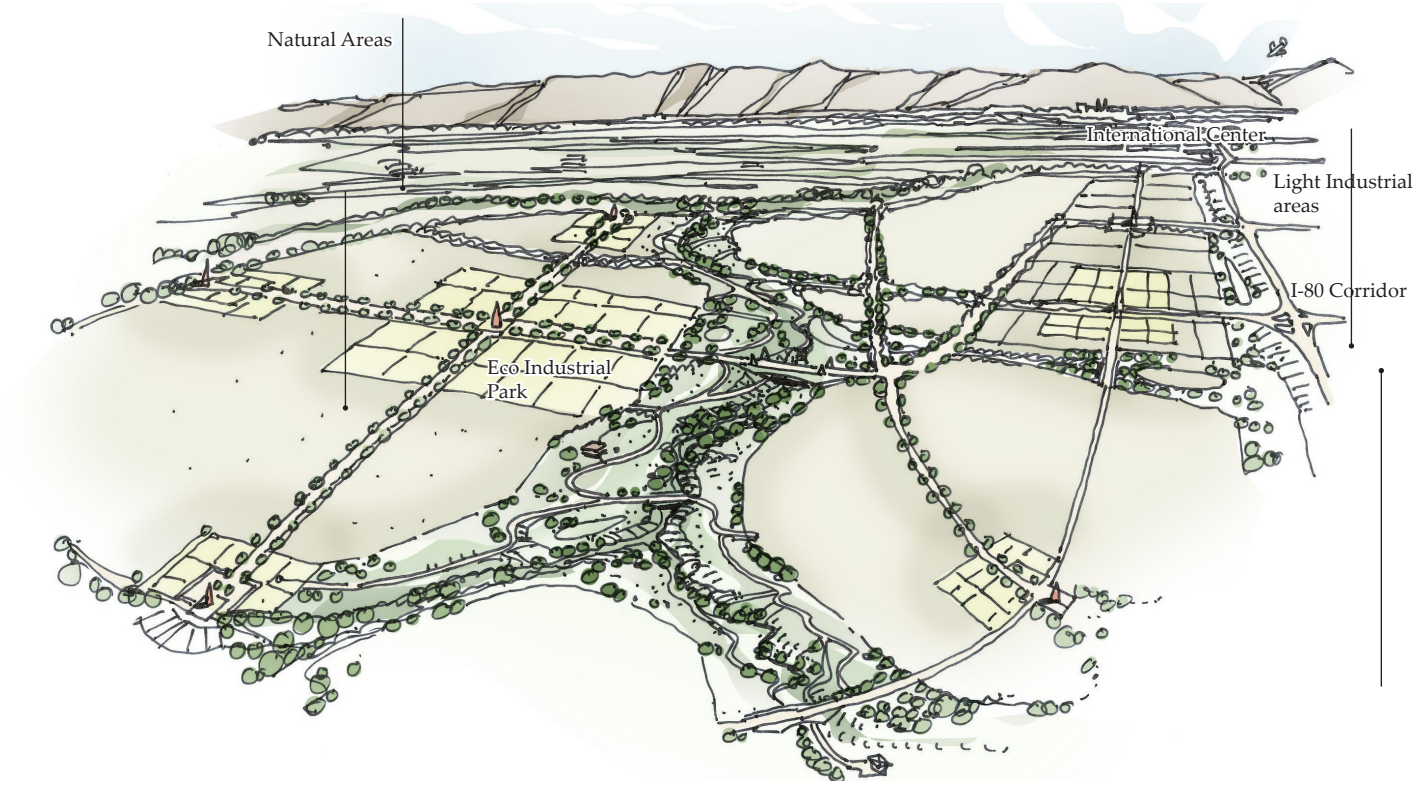
Some areas of the Northwest Quadrant have more sensitive natural environments than others. Great care must be practiced to protect the natural environment, while allowing other areas to develop and help sustain the City's economy.

In order for the area to develop appropriately, new infrastructure is required. This infrastructure includes streets, rail lines and utilities. To fully capture the economic development potential, high speed internet access is necessary. It is important that the area develop in a phased approach and the utilities built to accommodate future demand in an incremental approach. Infrastructure may be the biggest deterrent to economic development in the area. Figuring out how to pay for new infrastructure, the long term maintenance of the infrastructure, and preserving future utility corridors is critical to the success of the area.

The Northwest Quadrant presents numerous natural hazards that need to be considered prior to new development occurring. The potential for soil liquefaction in the area is high. Much of the area has wetlands, including playa, which is subject to Federal regulation and oversight. The ground water may be close to the surface. There are some fault lines in the eastern part of the area. All of these factors increase the cost and may add considerable time to the permitting process. These hurdles require special consideration when it comes to rezoning the area north of I-80 and issuing building permits.

Goals for Development Areas:

- Preserve areas for future office, industrial, manufacturing, research and distribution land uses.
- Encourage the continuation and expansion of the Salt Lake International Airport and airport-related industries.
- Concentrate development along major transportation corridors.
- Promote infill development.
- Develop 7200 West and I-80 as a major gateway to the City.
- Expand the regions' economic base by supporting business recruitment, development, and job creation.
- Promote economic viability and equity.
- Develop an eco-industrial park development strategy for the area north of I-80.
- Encourage the development of renewable energy.



MOVING FORWARD > > >

Promoting the Northwest Quadrant as an economic engine for the City is a key goal of this plan. It is important to identify key guiding principles and policies that will help provide direction and aid in the decision making process. Each guiding principle is aimed at addressing the initiatives and direction identified in Plan Salt Lake and other applicable adopted master plans of the City. These Guiding Principles, Initiatives and Policies apply to economic development activities in the area.

GOAL 01

PRESERVE AREAS FOR FUTURE OFFICE, INDUSTRIAL, MANUFACTURING, RESEARCH OR DISTRIBUTION USES

Plan Salt Lake initiatives supported by this action:

Growth
- Promote infill and redevelopment of underutilized lands

Air Quality
- Ensure local industries meet stringent environmental standards

Economy
- Encourage a resilient and diversified economy

Policy DA-1.1. Preserve land for industrial expansion south of I-80, ensuring the City's economic sustainability.

Policy DA-1.2. Work with property owners to ensure the continuation and expansion of mining operations is done in an environmentally responsible manner and restricted to the area south of I-80.

- Coordinate with Kennecott and other affected owners regarding future expansion plans and consider the social, economic and environmental impacts/benefits of expansion.
- Maintain compatible land uses that currently exist around the tailings impoundment and utilize buffers such as fencing, screening, earth berms and natural landscaping to protect adjacent land uses.

Policy DA-1.3. Use appropriate industrial and office uses to buffer natural resources.

- Promote pollution control equipment on all buildings and for all industrial/manufacturing uses.
- Restrict storm runoff from parking lots flowing directly into natural areas, wetlands, and green corridors.
- Use Best Management Practices (BMPs) to improve run-off water quality
- Utilize appropriate buffers and landscapes, including bioswales, to limit the impact development has on natural areas and green corridors.

Policy DA-1.4. Provide areas for land uses that can support the workers and visitors to the area, such as restaurants, gas stations, and uses that provide daily needs.

GOAL 02

ENCOURAGE THE CONTINUATION OF THE SALT LAKE INTERNATIONAL AIRPORT AND AIRPORT-RELATED INDUSTRIES.

Plan Salt Lake initiatives supported by this action:

Growth

- Locate new development in areas with existing infrastructure and amenities, such as transit and transportation corridors.

Transportation

- Support and enhance the Salt Lake International Airport as a regional and international amenity (including freight).

Government

- Maintain and enhance City infrastructure in a way that is equitable and fair.

Policy DA-2.1. Coordinate with the airport on future expansion plans.

Policy DA-2.2. Continue to support land uses that benefit from being adjacent to the airport.

Policy DA-2.3. Encourage the continuation of the Salt Lake International Airport and airport-related industry.

- Maintain the high level of compatible land uses that exist around the Airport today.

GOAL 03

CONCENTRATE DEVELOPMENT NEAR MAJOR TRANSPORTATION CORRIDORS

Plan Salt Lake initiatives supported by this action:

Growth

- Locate new development in areas with existing infrastructure and amenities, such as transit and transportation corridors.

Transportation

- Support and enhance the Salt Lake International Airport as a regional and international amenity (including freight).

Government

- Maintain and enhance City infrastructure in a way that is equitable and fair.

Policy DA-3.1. Encourage industrial, manufacturing, and major office uses to develop in the areas south of I-80 and the International Center first.

- Target economic development opportunities in the existing M-1 and M-2 zoning districts.
- When opportunities arise to develop industrial uses north of I-80, which may include an eco-industrial park, work with economic development partners to promote the area.

Policy DA-3.2. Locate new development in areas with existing infrastructure.

- New infrastructure not abutting existing infrastructure should be appropriately and reasonably sized to account for future development that may occur on the extension.

GOAL 04

PROMOTE THE INFILL AND REDEVELOPMENT OF UNDERUTILIZED AREAS

Plan Salt Lake initiatives supported by this action:

Growth

- Promote infill and redevelopment of underutilized land.

Air Quality

- Ensure local industries meet stringent environmental standards.

Policy DA-4.1 Work with property owners, environmental groups, government agencies and other parties to develop and perform appropriate and cost-effective methods to address the North Temple and Cannon Pioneer landfills.

- Analyze and evaluate condition of old landfill properties.
- Anticipate potential remediation of old landfill sites as demand for developable property in the area creates sufficient market value to justify the costs of reclamation.
- Use incentives to address old landfill sites, taking into account land use and costs related to remediation.
- Consider interim uses for the property that may not require full remediation, such as a solar farm.

Policy DA-4.2. Promote infill and redevelopment of vacant or underutilized parcels within the area.

- Where appropriate, utilize incentives such as reimbursement/ credit of fees, site design flexibility, the fast tracking of infrastructure and planning, Redevelopment Agency tax-increment financing of improvements, and other options to encourage development, redevelopment, and remediation.

GOAL 05

DEVELOP 7200 WEST AND I-80 AS A MAJOR GATEWAY TO THE CITY

Plan Salt Lake initiatives supported by this action:

Growth

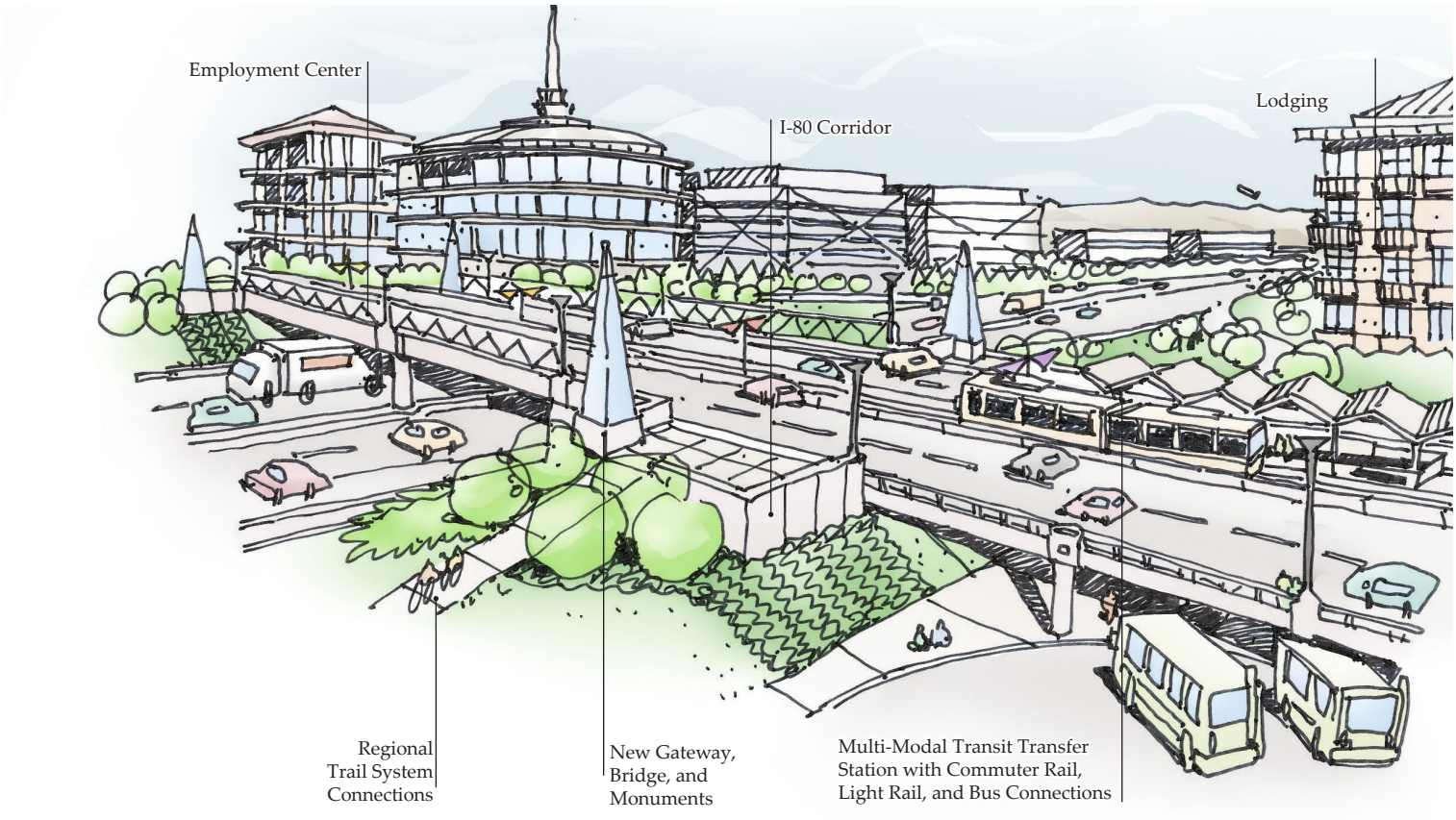
- Promote infill and redevelopment of underutilized land.

Air Quality

- Ensure local industries meet stringent environmental standards.

Policy DA-5.1 Promote this area as a major employment center for the City.

- Support 4-5 story structures in the area.
- Consider office and lodging as potential land uses.
- Promote high quality design and building materials.



Interstate 80 and 7200 West Gateway to Salt Lake City

GOAL 06

EXPAND THE REGION'S ECONOMIC BASE BY SUPPORTING BUSINESS RECRUITMENT, DEVELOPMENT AND JOB CREATION.

Plan Salt Lake initiatives supported by this action:

Economy

- Strengthen our role as an economic, social and commerce center.
- Support quality jobs.
- Maintain the City's competitive economic edge.
- Support entrepreneurship and innovation.

Policy DA-6.1. Recruit new business enterprise that would bring higher wage jobs to the Northwest Quadrant.

- Encourage employers to expand, establish, or relocate to the area to increase its long-term economic sustainability.
- Work with economic development partners to market developable lands in the Northwest Quadrant to low impact industrial, manufacturing and high tech companies.
- Support ongoing efforts to encourage business development with programs that include management training, employee training, mentorships, and similar programs.

GOAL 07

PROMOTE ECONOMIC VIABILITY AND EQUITY

Plan Salt Lake initiatives supported by this action:

Economy

- Encourage a resilient and diversified economy.

Government

- Maintain and enhance City infrastructure in a way that is equitable and fair.
- Collaborate to set short- and long-term priorities and invest accordingly.

Policy DA-7.1. Recognize the unique opportunity to promote economically sustainable development through public/private partnership.

- Seek opportunities for innovative funding and financing opportunities for economic development.
- Undertake formal review of impact fees applicable to the Northwest Quadrant to comply with legal constraints and to fairly allocate the costs of implementing this Plan and providing necessary services within the Northwest Quadrant.
- Explore equitable and creative allocations of the costs of implementing this Plan among all stakeholders.

GOAL 08

DEVELOP AN ECO-INDUSTRIAL PARK DEVELOPMENT STRATEGY FOR THE AREA NORTH OF I-80

Plan Salt Lake initiatives supported by this action:

Air Quality

- Support and promote renewable energy sources.
- Encourage energy efficiency citywide
- Ensure local industries meet stringent environmental standards

Economy

- Encourage a resilient and diversified economy.

Policy DA-8.1. Establish a public-private partnership to realize the full economic potential of the area.

- Utilize appropriate economic development tools to support infrastructure needs, business recruitment and retainment, and to build relationships between businesses.
- Consider an economic development checklist that is aimed at meeting ecological objectives to qualify for economic incentives.
- Find ways that the existing agricultural economy can benefit from industrial uses instead of being displaced by new development.

Policy DA-8.2 Seek out companies that can benefit from reusing by-products produced from other businesses in the vicinity.

Policy DA-8.3 Establish and encourage eco-industrial type developments north of I-80.

- Establish eco-industrial development standards for areas within 400 feet of the Natural Areas.
- Streamline the development process and provide appropriate incentives for developing an eco-industrial park.

Policy DA-8.4 Ensure that a local supply market exists that can provide materials, parts and components, energy, customers and employees.

Policy DA-8.5 Review development regulations to make sure the mix of permitted uses contribute to a by-product exchange.

Policy DA-8.6 Provide incentives for development that utilize on-site renewable energy sources, such as solar, wind, biomass and low-impact hydro or geothermal energy.

- Consider a shared heating and power generation system for the area.
- Allow solar farms and panels as principal uses and on the rooftops of buildings, over parking areas.

Policy DA-8.7 Consider Requiring geotechnical studies, wetland mapping and other studies necessary to identify all natural hazards prior to development.

Policy DA-8.8 Support lower buildings closer to natural areas and taller buildings around the 7200 West and I-80 interchange.

Policy DA-8.9 Reduce noise from new and existing development in the area.

What is an Eco-Industrial Park?

An Eco-Industrial park is a collection of manufacturing, industrial, office, and support businesses located in close proximity to one another for mutual benefits while also limiting the environmental impacts. The goals of an eco-industrial park include reducing environmental impact, economic prosperity through the creation of a circular economy, and a net positive social impact. These goals are accomplished by:

- A physical layout and development pattern that avoids sensitive lands, such as wildlife habitat and waterways;
- A reduction in greenhouse gas emissions through the use of freight rail, better building design, and utilizing byproducts from local sources;
- On-site renewable energy production, energy-efficient design, and utilizing heat sources created by industrial processes;
- Creating effective and efficient material flows by maximizing re-use and recycling of materials and establishing resource exchanges and recycling networks;
- Appropriate waste management aimed at re-use, recycling and pollution prevention;
- Utilizing locally-sourced and recycled building materials as much as possible.

Eco-Industrial and the Northwest Quadrant

Light industrial uses will make up the development area north of I-80. An Eco-industrial concept that incorporates some additional development standards, such as stormwater management and limited glass openings on a building, will be required for areas located within 400 feet of the Natural Areas, the Inland Sea Shorebird Reserve, and other environmentally-sensitive areas. For other areas north of I-80, incentives should be provided for developments that incorporate additional development standards that are mindful of the environmentally-sensitive nature of the area. In the Northwest Quadrant, an eco-industrial park concept makes sense to achieve the goals of this master plan. An eco-industrial park is more than just a land use plan. It requires a strong economic development commitment at the local, regional and state level.

Zoning for an eco-industrial park may include a new zoning district or overlay that focuses less on land use and more on development characteristics that generally comply with the concepts and policies of this master plan. In some instances, some land may be more appropriately zoned to be consistent with the International Center. Whatever approach is taken, future zoning should balance the goals of this plan and recognize that some areas may require different zoning regulations than other areas.

GOAL 08

ENCOURAGE THE DEVELOPMENT OF RENEWABLE ENERGY

Plan Salt Lake initiatives supported by this action:

Air Quality

- Support and promote renewable energy sources.
- Encourage energy efficiency citywide

Policy DA-9.1. Provide incentives for development that utilize on-site renewable energy sources, such as solar, wind, biomass and low-impact hydro or geothermal energy.

- Allow solar farms and panels in buildable areas, as principal uses and accessory uses.

Transportation

City Planning Context

The transportation network links the Northwest Quadrant to the rest of the City, region and state. The local network connects one of the largest economic development opportunities along the Wasatch Front to the regional and intestate networks. It allows us to access the natural environment. The transportation network is the lifeblood of the Northwest Quadrant.

Plan Salt Lake recognizes the importance of all modes of travel in the City. Some needs and functions of the City require certain types of transportation. For example, industrial development often relies on both heavy rail lines and airports to deliver freight and other goods. They also require roads capable of handling large trucks and easy access to the Interstates.

A transportation and mobility network that is safe, accessible, reliable, affordable and sustainable, providing real choices and connecting people with places. Plan Salt Lake Transportation and Mobility Guiding Principle

While the city-wide initiatives are primarily aimed at reducing the use of the automobile, *Plan Salt Lake* recognizes the importance of the airport as a regional and international amenity, including freight.

Other citywide plans, such as the *Transportation Plan* and other regional plans also influence the future of the Northwest Quadrant. Implementing those plans help the area's transportation network contribute to the overall success of the Northwest Quadrant, the City, and the region.

Access

The Northwest Quadrant is the best connected location in the State for manufacturing and industrial development with direct access to the Salt Lake International Airport, I-80, I-215, heavy rail lines and in close proximity to I-15. The area has room for new development to continue as a major job center for the City, region and State. The availability of land and the access to multiple transportation modes make it an attractive location.

Future transportation improvements will provide multiple options for people to reach the employment centers. As a critical mass of jobs is developed in the area north of I-80, the Airport Light Rail should be extended to provide transit options for employees. This allows the development of a transit-oriented employment center at key nodes, such as the International Center and 7200 West/I-80 interchange.

The development of the Mountain View Corridor improves the connectivity to the western side of the Salt Lake Valley. The Mountain View Corridor is intended to include a transit spine as well as connections to a regional trail that runs within the corridor.

Complementing convenient regional access from I-80 is a road system designed for industrial and manufacturing uses that can handle a variety of vehicles, including large trucks. On and off-street bike and pedestrian trails are located within appropriate arterials and would connect to regional trails located in the area.

Easy access to other modes of transit could reduce automobile trips to and from the area. The Northwest Quadrant currently is, and will continue to be, a major economic development and employment center for the City. Since there is not housing located in the Northwest Quadrant, it is critical to have better mass transit in this area to serve the large number of employees, especially those with low-income households. Additionally, support services, such as restaurants, are necessary in the area to reduce the need for the employees to drive long distances, and a complete network of trails and bike lanes allows people to move within the area by means other than a car.

The ability to ship and receive goods is critical. The Northwest Quadrant is better served than any other parts of the City for freight access. The proximity to Salt Lake International Airport, the existing Interstates, planned regional road networks, the Union Pacific main line, the short line railroad network and the intermodal rail transfer facility make the area's transportation network an attractive amenity to a variety of industries.

New streets

New streets will be constructed as development occurs. There are two key streets that have to be extended for the area north of I-80 to be developed: 7200 West and John Cannon Drive (860 North). 7200 West is going to be the primary access into the area due to the interchange with I-80. However, due to the location of the old landfill, the North/South access north of I-80 may be shifted directly west of the landfill. John Cannon Drive runs east and west and would connect the International Center to the future development area

to the west. Both streets should be designed to avoid sensitive areas that are identified in this plan. New development should occur along the future courses of these two streets, leaving space for local surface roads in a grid layout that is modified to move around sensitive lands. Cul-de-sacs should be avoided unless they are used as an end point to a road that would otherwise lead to a natural area or into a conservation development area.

Transportation Goals:

- Create a multi-modal transportation network.
- Promote the design of transportation corridors that support the natural landscape
- Design roads to support the land uses in the area.
- Support the expansion of short line railways through the area.

MOVING FORWARD > > >

This section of the plan is intended to provide guidance for transportation related decisions in the Northwest Quadrant. It is important to identify key guiding principles and policies that will help provide direction and aid in the decision making process. Each guiding principle is aimed at addressing the initiatives and direction identified in Plan Salt Lake and other applicable adopted master plans of the City. These Guiding Principles, Initiatives and Policies apply to existing and future infrastructure improvements, new development and other changes to the transportation network in the area.

GOAL 01

CREATE A MULTI-MODAL TRANSPORTATION NETWORK

Plan Salt Lake initiatives supported by this action:

Transportation and Mobility

- Create a complete circulation network and ensure convenient and equitable access to a variety of transportation options by:
  - Expanding pedestrian and bicycle networks and facilities in all areas of the City.
  - Enhancing the regional transportation network.
- Make walking and cycling viable, safe and convenient transportation options in all areas of the City.
- Collaborate with regional partners to relieve congestion and enhance rights-of-way for alternative modes of transportation.

Policy T-1.1. Provide a network of streets based on a roadway typology that accounts for multi-modal travel, including large trucks, transit, automobiles, bicycles and pedestrians.

- Plan roadways on a grid or modified grid system to ensure distribution of automobile trips, while respecting the natural landscape and visual quality of the area.
- Ensure freeway access to the Northwest Quadrant with interchanges from I-80 by working with UDOT, WFRC and others to ensure long term planning, funding and construction of streets.
- Extend existing roads to provide multiple access points to new development.
- Develop an equitable and fair system to pay for the construction of roads. Work with funding partners to adequately fund roads.
- Scale roadways to best serve the adjacent land uses while respecting the natural landscape and visual quality of the area.
- Designate certain roads as bikeways and design the road to make it safe for cyclists.

Policy T-1.2. Incorporate sidewalks within streets and trails or paths in Greenways.

- Ensure sidewalks are separated from vehicle travel lanes with landscaping.
- Ensure all sidewalks are ADA compliant.

Policy T-1.3 Develop a system of on- and off-street bikeways and trails.

- Connect the Northwest Quadrant to the rest of the City as suggested in the *Pedestrian and Bicycle Master Plan*, without encroaching into the Natural Areas of the Northwest Quadrant. As appropriate, add bike lanes on 7200 West and other north/south roads. Design future streets in accordance with the City's Complete Streets Ordinance.
- Develop off-street and on-street bikeways to connect development nodes. Bikeways should be designed to accommodate both bicycle commuting as well as higher speed recreational bicycling.
- Preserve, formalize, and protect the existing popular bike route along the I-80 frontage road between the Airport and Saltair as an important and well-used regional route for road/racing recreational bicyclists. This type of recreational bicycling is for higher speed riders who need areas with less traffic, intersections, and pedestrians. Develop this route in a way that minimizes impact from an increase in traffic as the area develops.
- Consider developing a shared-use pathway parallel to the Frontage Road to serve walkers, runners, families, and slower speed recreational riders. This would not replace the aforementioned I-80 Frontage Road bicycle route.
- Consider eliminating vehicle traffice along the frontage road.
- Develop on-street bikeways to connect development nodes where off-street connections do not exist with a safety first approach.
- Consider branding throughout the bicycle network with special signs and way-finding to increase visibility of the system and ease of use.
- Provide bicycle facilities for regional travel, including bicycle lockers, racks, and shelters.

Policy T-1.4. Connect the Northwest Quadrant with a public transit network to provide transportation choices.

- Work with property owners, UTA, UDOT, and WFRC to preserve a corridor for future transit to connect to the Airport Trax line and future transit that may be located on or near the Mountain View Corridor.
- Extend the Airport Light Rail incrementally west as a critical mass of jobs are located along I-80.
- Coordinate local and regional transit service to provide seamless transfers between nodes.
- Provide covered and partially enclosed shelters with seating and lighting at each transit stop.
- Provide kiosks, bulletin boards, and/or signs devoted to providing local transit information, including basic schedule and route information at each transit stop.
- Encourage major employers to work with UTA to provide transit service (with vans, shuttles, buses) to rail or other major transit facilities and/or another major destination, such as an employment center.
- Link phasing of infrastructure with development to ensure critical employment levels to enable a successful transit system.

Policy T-1.5. Create and implement a comprehensive transportation demand management (TDM) program aimed at reducing weekday peak period trips.

- Reduce vehicle trips, overall miles traveled, traffic congestion, air pollution, and greenhouse gas emissions through creative design, pedestrian amenities, and the provision of transit.
- Reduce energy consumption and pollution from private automobiles by encouraging less use of motor vehicles

GOAL 02

PROMOTE THE DESIGN OF TRANSPORTATION CORRIDORS THAT SUPPORT THE NATURAL LANDSCAPE

Plan Salt Lake initiatives supported by this action:

Transportation and Mobility

- Incorporate green infrastructure into our rights-of-way and transportation network.

Beautiful City

- Reinforce the development of a connected green network of urban open spaces and forest that accommodates active transportation and provides contact with nature.

Policy T-2.1. Transportation corridors should be designed to minimize impacts to natural drainage areas.

- Avoid constructing roads through natural drainage areas.
- Adequately design roads to direct stormwater to appropriately designed basins.

Policy T-2.2. Use native and natural landscaping materials within transportation corridor rights of way.

Policy T-2.3 Use appropriate but minimal levels of lighting to keep sites darker near Natural Areas.

- Direct lights down and away from natural habitats.
- Avoid tall street lights that may negatively impact wildlife habitat.
- Use the minimum number of street lights necessary for safety.
- Along trails, use lights that only light the trail and not wildlife habitat.

GOAL 03

DESIGN ROADS TO SUPPORT THE LAND USES IN THE AREA

Plan Salt Lake initiatives supported by this action:

Transportation and Mobility

- Incorporate green infrastructure into our rights-of-way and transportation network.

Policy T-3.1. Modify the cross section of roads to allow for the integration of transit, land use, and other multi-modal options.

Policy T-3.2. Create cross sections of roads and construction details that can handle large truck traffic with little maintenance for the first 10 years.

Policy T-3.3 Utilize flexible building setbacks to allow natural landscape features to be used for required landscaping.

Policy T-3.4 North of I-80, extend 7200 West as the primary access point to I-180 and connect secondary access to John Cannon Way in the International Center.

- Each street should be designed as arterials capable of supporting large, heavy vehicles and to a standard that ensures the street will be free from major repairs for at least 10 years.
- Local cross streets should be located no further than 2,000 feet from the next cross street.
- All new streets should be constructed in a way that allows them to be extended until they reach a natural area.
- Local streets should be designed on a grid system that allows for continuation of the streets as development occurs. The grid system should be modified to avoid running through Natural Areas and Greenways.
- Cul-de-sacs should be used to terminate all streets at the border of natural areas.

Policy T-3.5. Maintain 8800 West as private road. Public access should be restricted to prevent trespassing that may occur on the adjacent reserve areas west of 8800 West.

GOAL 04

SUPPORT THE EXPANSION OF SHORT LINE RAILWAYS THROUGH THE AREA.

Plan Salt Lake initiatives supported by this action:

Transportation and Mobility

- Support and enhance the Salt Lake International Airport as a regional and international amenity (including freight)

Economy

- Maintain the City's competitive economic edge

Policy T-4.1. Support the expansion of the short line railroad west of the International Center to boost the economic advantage of the area.

- Avoid running rail lines in natural areas.
- Rail lines should provide access to private property in places that reduce conflicts with public streets.
- Support the construction of bridges over the main Union Pacific line to reduce conflicts with streets.

Public Services

Public Services include all of the services that the City and other public entities provide. This includes public safety, street maintenance, utility service, telecommunications, etc. Regardless of land use, all areas of the City require some level of public service.

It is important that public services are provided in a way that supports the guiding principles and policies of the *Northwest Quadrant Master Plan*. This ranges from environmental protection and conservation to equitable access to the digital world.

Plan Salt Lake supports providing public services in an efficient and effective manner. This requires long term commitment to our infrastructure and protecting our natural lands.

A local government that is collaborative, responsive, and transparent. Plan Salt Lake Government Guiding Principle

There are many plans that guide providing public services. The *Northwest Quadrant Master Plan* supports allowing service providers to provide these services in a manner that is equitable and fair.

Some areas of the Northwest Quadrant have more sensitive natural environments than others. Great care must be practiced to protect the natural environment, while allowing other areas to develop and help sustain the City's economy.

In order for the area to develop appropriately, new infrastructure is required. This infrastructure includes streets, rail lines, high speed telecommunications and utilities. It is important that the area develop in a phased approach and the utilities built to accommodate future demand in an incremental approach, preferably from east to west. Infrastructure may be the biggest deterrent to economic development in the area. Figuring out how to pay for new infrastructure, the long term maintenance of the infrastructure, and preserving future utility corridors is critical to the success of the area.

Public Services Goals:

- Create reliable, cost-effective, environmentally-sustainable systems of utilities, public facilities and services
- Develop a public safety plan for emergency access and travel
- North of I-80, provide a common Northwest Quadrant design theme for the public infrastructure, such as native landscaping, lighting, bridge design, signs, etc

MOVING FORWARD > > >

Public Services are a key ingredient for the Northwest Quadrant to develop. Each guiding principle is aimed at addressing the initiatives and direction identified in Plan Salt Lake and other applicable adopted master plans of the City. These Guiding Principles, Initiatives and Policies are intended to help in the decision making process regarding how to fund, deploy, carry out and maintain public services in the area.

GOAL 01

CREATE RELIABLE, COST-EFFECTIVE, ENVIRONMENTALLY SUSTAINABLE SYSTEMS OF UTILITIES, PUBLIC FACILITIES AND SERVICES

Plan Salt Lake initiatives supported by this action:

Air Quality

- Encourage energy efficiency citywide

Equity

- Ensure access to all City amenities and services
- Support neighborhood identity and diversity

Policy PS-1.1. Encourage use of native, adaptive, and drought-tolerant landscaping in public facilities and service corridors.

Policy PS-1.2. Design public service facilities with shared public access and stormwater use when appropriate.

Policy PS-1.3. Minimize public service costs in appropriate ways.

Policy PS-1.4. Reduce public costs for stormwater management, flood control, and other forms of built infrastructure by incorporating an efficient stormwater management system that emphasizes green technologies, low-impact development, and best management practices.

Policy PS-1.5. Collaborate with adjacent townships and cities, various federal, state, and county agencies, and appropriate service providers to provide coordinated and sustainable development of the region.

Policy PS-1.6. Develop a public services utility plan that anticipates future needs and mechanisms for funding infrastructure.

- Ensure that the overall location and site design of utility systems including power generation substations and solar farms are consistent with goals and principles of this plan and minimize impacts and disturbance to natural resources.

Policy PS-1.7. Mitigate mosquitoes and invasive species

- Seek to utilize mosquito abatement technologies that reduce impacts on natural systems and wildlife.
- Develop a plan between the City and property owners to mitigate and control invasive species, including Tamarix, Phragmites, Russian Knapweed, and Perennial Pepperweed.

Policy PS-1.8 Support the extension of the useful life of the active landfills in the area.

- Support the vertical growth of the current landfill to avoid using more land and shipping of waste to other facilities.
- Develop a plan for the future use of the active landfill.

GOAL 02

DEVELOP A PUBLIC SAFETY PLAN FOR EMERGENCY ACCESS AND TRAVEL

Plan Salt Lake initiatives supported by this action:

Government

- Protect people and infrastructure from crimes and natural hazards
- Maintain a safe and healthy natural and human environment
- Be prepared for severe disasters

Policy PS-2.1. Plan for police, fire, and emergency services that are staffed at appropriate levels, creating a sense of security and a high level of protection for the Northwest Quadrant.

GOAL 03

NORTH OF I-80, PROVIDE A COMMON NORTHWEST QUADRANT DESIGN THEME FOR THE PUBLIC INFRASTRUCTURE, SUCH AS NATIVE LANDSCAPING, LIGHTING, BRIDGE DESIGN, SIGNS, ETC

Plan Salt Lake initiatives supported by this action:

Beautiful City

- Identify and establish standards for key gateways into the City

Policy PS-3.1. North of I-80, infrastructure should be designed to look like it is part of the natural environment.

- Bridges should contain elements that fit with the natural setting and allow passers-by to see into natural areas.
- Storm water detention basins should use native plant species.
- Street signs should provide clear identification and be designed to fit in with the natural environment.
- Street lighting should use poles and fixtures that are compatible with the natural environment.

Policy PS-3.2. Build infrastructure to minimize impacts on wildlife and natural systems, such as natural stormwater detention and dispersion, underground power lines and wildlife crossings under roads where appropriate.

04 Development Guidelines

The following development guidelines should be considered for new developments in the area north of I-80. The guidelines should be used to help inform planning and development decisions that impact the area. The guidelines are intended to support the implementation of the goals and policies found in this plan. They shall be used to inform future development standards and assist in project review.

LANDSCAPING

Encourage green space conservation and better water efficiency and protection.

- Encourage the use of recycled wastewater or recycled gray water for irrigation uses where appropriate.
- Encourage high-efficiency irrigation systems.
- Explore opportunities to construct a secondary water system (purple pipe system) for irrigation purposes using a secondary water source.
- Enforce responsive and efficient irrigation system management.

Encourage environmentally-friendly landscaping and irrigation practices that are responsive to the climate and soil conditions of the area and that are more resilient to periods of drought.

- Use appropriate landscaping for the area that does not require extensive modifications to the native soils.
- Use native, adaptive, and drought/salt-tolerant vegetation for landscaping.
- Use low-water use landscaping
- Minimize irrigated landscape areas and utilize naturalized swales.
- Encourage maintenance of native soils and native landscaping in large public areas.
- Seek to avoid the use of pesticides, herbicides and fertilizers that impact wildlife and water quality, and use sustainable management techniques.
- Reduce heat islands to minimize impact on micro-climate and human and wildlife habitat through the following mechanisms where feasible:
  - Shade hardscape.
  - Use light-colored roofing.
  - Install vegetated roofs, i.e., green roofs.
  - Use light-colored paving materials.
  - Minimize the size of parking lots.

STORM WATER

Encourage stormwater management that infiltrates, reuses, or evaporates or transpires rainfall, decreasing runoff volume.

Evaluate and implement as practicable stormwater management infrastructure on local levels to minimize the size of large-scale collective detention and retention basins.

Incorporate greenways throughout new developments to serve as multipurpose corridors.

- Incorporate appropriate recreation areas, stormwater management, and detention and utility infrastructure corridors within greenway systems.
- Utilize small stormwater detention areas as open space.

Use detention and drainage areas to intercept and filter stormwater.

Use water reuse systems to maximize water efficiency in the community and to decrease the size of supply and conveyance infrastructure.

Utilize bioswales in place of traditional curb and gutter systems to manage surface runoff.

AIR QUALITY

Encourage the use of sealants, finishes, paints, and flooring that have zero or low volatile organic compound (VOC) content.

Utilize the highest standard emission control systems for manufacturing uses.

ENERGY EFFICIENCY

Encourage the incorporation of energy reduction strategies:

- Orient buildings parallel to or within 15° of the east-west axis.
- Use natural ventilation in buildings.
- Use natural lighting in buildings.
- Use high efficiency lighting control systems.
- Use high efficiency thermal control systems.

Encourage the use of recycled, salvaged, rapidly renewable, and locally produced materials.

RECYCLING

Incorporate recycling into new developments.

- Encourage builders to divert significant amounts of their waste (>50 percent) away from landfills through reuse or recycling.
- Support the reuse of waste materials generated in manufacturing and industrial processes.

BIRD SAFE BUILDING DESIGN

Locate and orient new buildings to reduce their impact on wildlife habitat.

Incorporate bird safe design into new buildings

- Limit the amount of glass used on buildings. Avoid large expanses of glass facing natural areas.
- When glass is used to provide natural day light and required by building codes, utilize glass that reduces transparency and reflectivity.
- Consider the use of facade treatments to screen glass.
- Avoid up-lighting of buildings and spotlights.
- Reduce unnecessary interior lighting during nighttime hours.
- Consider locating trees and taller shrubs within 3 feet of the building or far enough away to avoid tree canopies being reflected in the glass.