City Creek Canyon: Shaded Fuel Break March 2010 Update

SLC Department of Public Utilities

March 2010 Project Status:

Salt Lake City Public Utilities proposed a Shaded Fuel Break in City Creek Canyon at a public meeting in April 2009. Given community feedback and concern for the impact of the Shaded Fuel Break on the canyon, SLC Department of Public Utilities deferred the project and further engaged the community. A Citizen's Review Committee was formed and public comment was encouraged. The City has initiated a deeper review of the project addressing possible impacts on City Creek scenery and ecology.

During summer 2010, three test plots representative of different growth conditions are proposed as demonstration and study sites for the proposed shaded fuel break. Final approval is sought by SLC City Council through signing an interlocal agreement with UFA before these sites may be created. If installed, these sites will be analyzed by non-SLC personnel, before and after the test plots are installed, for the impact of the shaded fuel break on both avian and native floral communities. Additionally, public comment will be encouraged on these test plot sites. With the study results and public comments in hand, the SLC Department of Public Utilities will determine if the project should continue or if they should pursue other fire safety options. Alternatives strategies might include fire safety zones at the water treatment plant and along the road, evacuate staff and recreational users after the road becomes safe or by airlift, and creating controlled burns or allowing natural fires to burn with less suppression.

Project Need & Purpose:

The singular purpose of this proposed project is to create a safer roadway on which Life Safety crews may travel up and down in case of another significant fire event, and the public and water utility staff can be safely removed from the canyon.

Fire is a natural part of the City Creek Canyon ecosystem. Suppression has been the main management tool for the last 100 years and has resulted in significant fuel loading. On the request of SLC Department of Public Utilities, the US Forest Service conducted a 2006 survey of fuels in City Creek Canyon. Parts of the lower Canyon were identified as needing prescribed fire and the findings were summarized in an April 2007 report.

However, before the long term issue of fuels management can be addressed, the short term issue of roadway safety must be addressed given that the report:

> "… concludes that the most critical priority that exists in City Creek Canyon concerns firefighter and public safety. This canyon has only one road, extending from the mouth along the bottom and terminating in the upper reaches of the drainage. Relatively large numbers recreationists use the canyon on any given summer day. As a "dead-end" canyon, both the public and fire fighters can be at risk, particularly with a fire in the lower reaches of the canyon. In fact, it is the high level of recreation activity in this section along the roadway and the potential for human-caused ignitions that creates much of the concern about a wildfire. Fuels treatments in this corridor would be especially helpful for emergency ingress for suppression and as an escape route for hiker and bikers."

Citizen Involvement

A Citizen's Review Committee was formed in April 2009 after public input requesting more scientific review and an expanded timeline for input. Members of this committee include representatives from the Salt Lake City Council, Capitol Hill Community Council, Greater Avenues Community Council, Great Salt Lake Audubon, National Audubon, Utah Native Plant Society, the Western Wildlife Conservancy and concerned citizens. Additionally, governmental agencies assisting in this review are the Unified Fire Authority, the Utah Division of Forestry Fire and State Lands, the Utah Division of Wildlife, the Salt Lake City Fire Department and representatives from the Salt Lake City Department of Public Utilities and SLC Council staff.

To date, the process underway includes:

1. City Creek Canyon tour with Citizen's Review Committee – April 2009
2. Recap meeting to discuss options & concerns – June 2009
3. Site selection for "test" shaded fuel break plots – June 2009
4. Baseline Survey of selected "test" shaded fuel break plots by experts in native plants and birds – July 2009
5. September 2009 Open House & Public Comment Request – location of test plots
6. December 3, 2009 Citizen's Review Committee Meeting

Test Plots & Ecological Review

At the June 2009 meeting the Citizen's Review Committee recommended that the shaded fuel break work be done in two or three small test sites to allow the public to see and respond to the visual impacts on the canyon and to allow experts to evaluate the potential ecologic impacts on native plants, invasive plants, and avian habitat. Sites were selected by the Citizen's Review Committee and confirmed as effective fire suppression example locations by representatives from the Unified Fire Authority. Public input was solicited on the site locations during the fall of 2009 during a four week comment period following a September 17, 2009 public open house. In addition to invasive weed baseline mapping by SLC Watershed, all three sites have been surveyed by native plant and avian specialists to obtain baseline data. However, the avian specialist recommended a broader site study. Wildlife (mammalian) experts did not do any studies given their lack of concern about the impact of this proposed shaded fuel break and indicated that larger ungulates would actually use the area more.

The proposed intent would be to install the shaded fuel break test plot locations during a season that does not impact nesting bird habitat, and then study the test location over time. Any impacts would be documented and presented to the public with their overall feedback solicited. Community input would determine the next steps for any further work on a shaded fuel break project.

1. Lower Canyon Site

   Latitude: 40°47'59.66"N Longitude: 111°52'21.89"W

   Description: Located just up canyon from Picnic Site #5 on the north side of the road.

2. Middle Canyon Site

   Latitude: 40°48'46.70"N Longitude: 111°50'12.23"W

   Description: 1/3 mile down canyon from the water treatment plant on the north and west side of the road.

3. Upper Canyon Site

   Latitude: 40°49'14.02"N Longitude: 111°48'45.67"W

   Description: Across from Picnic Site #21

The ecological studies will not be completed by SLC personnel, but by outside agencies and citizen representatives. The avian resource study will be completed by a combination of Utah Division of Wildlife Resources specialists and most likely assistance from citizen naturalist volunteers of the Great Salt Lake Chapter of the Audubon Society. The plant surveys will be lead by Ty Harrison, professor emeritus of ecology from Westminster College and Bill Gray, local plant expert and author of "Cyberflora, a guide to the plants of the Wasatch Mountains". Public input will be solicited throughout the summer, and fall of 2010.

Shaded Fuel Break- Benefits over other type of fuel breaks

To enhance the safety of the road, the tool of a shaded fuel break was recommended to the SLC Department of Public Utilities during an August 2008 tour with wild land fire specialists from the Bureau of Land Management, the US Forest Service, the Utah Division of Forestry Fire and State Lands as well as the Unified Fire Authority. After surveying the canyon, a unanimous recommendation was made by these agencies to install a shaded fuel break.

This recommendation was made because, in terms of enhancing safety for emergency responders, the public, and staff of the SLC Department of Public Utilities, this method would be the least intrusive of all methods. These recommendations were made because, in their experience, these aforementioned specialists felt that a shaded fuel break would not only maintain the scenic character of the canyon, but it would also maintain the shady character of the road, in contrast with traditional fuel breaks.

A shaded fuel break was considered over other types of fuel breaks, such as simply installing a clear cut on both sides of the road 15 feet back into the vegetation from edge of pavement as was done in Red Butte Canyon Natural Research Area, not only because of the impacts other methods would have on the ecosystem of City Creek but also the recreational user's experience.

Shaded fuel breaks are not a clear cut and maintain the character of the canyon as closely as possible. Other types of fuel breaks would not do this, and so were not considered.

SLC Staff feels that in selecting this option, shaded fuel breaks in the form proposed should both maintain the ecological character of the canyon as closely as possible while not detracting from the recreationalist's experience. City Creek Canyon has many passionate users because of not only the close proximity to downtown, but also the shaded respite from the summer time heat as well as the beautiful natural setting. Any other sort of attempt to make the roadway safer would deter from the canyon's recreational experience.

Shaded Fuel Break- Conceptual Implementation

If the decision is made to implement this project, the shaded fuel break in City Creek Canyon as proposed would have the following characteristics:

- Vegetation selectively thinned from edge of pavement in up to 100ft as needed to accomplish project goals.
- Shaded Fuel break installed on North side of road from Gate House just above Bonneville Boulevard to Area 30 Rotary Park (5.5 miles) as needed to accomplish project goals.
- Riparian habitat South of road (creek side) not to be disturbed
- Trees limbed from ground up to 15-20 feet high, depending on terrain & need
- Most large trees will remain
- Dead/dying and smaller trees removed as needed.
- Bridge and "ladder" fuels eliminated as needed.
- Wood will be chipped or removed, depending on microhabitat
- 4-6 weeks to completion
- Shaded canopy maintains riparian quality, keeping fuel moisture levels up
- Canyon will not be closed during installation of shaded fuel break, recreational and vehicular traffic may need to be regulated for small sections of canyon *depending* on work being done at the time.
- Fuel break would need to be re-thinned every 2-5 years, depending on weather and pace of regrowth, funded by the SLC Department of Public Utilities capital expenditures
- Work will be overseen by members of SLC Watershed staff on daily basis

- Riparian areas, including springs, will not need to be thinned because of pre-existing high fuel moistures