# Parley's Historic Nature Park

## Comprehensive Use and Management Plan

February 15, 2011

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Salt Lake City Corporation

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# A. Introduction

Parley's Historic Nature Park (PHNP) is a 63-acre open space along Parley's Creek that is used by hikers, bicyclists, dog owners and their dogs, and nature lovers. PHNP is located near 2700 East 2700 South and is a critical link in regional open space and trail networks. PHNP will be the first open space park area for which Salt Lake City has developed a management plan The intent of park management is to provide an enjoyable place to recreate for a diversity of visitors while protecting sensitive natural and cultural resources in the park.

This *Comprehensive Use and Management Plan* was completed in four stages:

- *Baseline Conditions* - analyzed existing conditions using scientific and expert study on the ground and a review of decisions, policies and stakeholders that have shaped the park's evolution.
- *Comprehensive Use Plan* - defined the goals for the park and the desired resource protection priorities and visitor experience.
- *Adaptive Management Plan* - developed an adaptive management plan to guide decision-making based on uses, monitoring and action in response to changing conditions.
- *Park Management* - outlines the responsibilities and costs of caring for the park, including planning, enforcement, maintenance, stewardship and monitoring.

The next step is to develop an *Improvements Plan* with recommended capital improvements, design details, and Best Management Practices to achieve park goals along with their projected costs and a park management budget.

The proposed *Comprehensive Use and Management Plan* was prepared by consultants for the Parks and Public Lands Division. The recommendations here are based on professional judgment, best management practices and a realistic assessment of city resources to manage and maintain the park. This is informed by:

1. Scientific review of water quality, the riparian corridor, wetlands, wildlife, vegetation and weeds, soils, cultural features, and observations of recreation behavior,
2. Review and compliance with existing city, county, state and federal policies,
3. Best management practices for protecting, restoring and maintaining open space areas and water resources.

4 . Public input on values, priorities and user concerns.

The planning process included extensive public process to solicit ideas, gather feedback and encourage citizens to communicate with their city leaders. A summary of public involvement opportunities, as well as a summary from the initial public issues identification is included in the *Appendix.*

*Sandstone aqueduct, a remnant from the historic Pleasant View Canal.*

## B. Existing Conditions

Parley's Creek and the land that surrounds it at the mouth of Parley's Canyon have a special place in Utah history as a crossroads, a center of industry, and an important natural resource. A significant citizen-led effort through the 1970's and 1980's established Parley's Historic Nature Park (PHNP) to protect important resources and to protect it for public enjoyment for generations to come.

Today, the 63-acre park is home to diverse wildlife and vegetation, critical water resources and a variety of recreation - hikers, off-leash dog walkers, BMX bikers and users on the regional Parley's Trail. This report summarizes the different resources of the park, how people wish to use and experience the park, and the different policies and agency responsibilities that need to be upheld here.

### Policy Framework

PHNP is located in Salt Lake County, but is owned and managed primarily by Salt Lake City. Major responsibilities include upholding:

- Federal standards and guidelines for protecting clean water and air, wetlands, endangered animal species (Bonneville Cutthroat Trout) and historic properties,
- State of Utah water quality standards,
- Salt Lake County ordinances, including animal control,
- Salt Lake City policies, including the Riparian Corridor Ordinance, Open Space Master Plan and the Off-Leash Dog Area Ordinance,
- Salt Lake City park rules and PHNP rules for off-leash dog use, and
- Easements and access for flood control, highway operations, power station, emergencies and other maintenance.

### Natural Resources

Before settlement of the valley, PHNP was likely a major wildlife habitat and corridor as it bridges mountain and valley habitats. The diversity of vegetation—north-facing woodlands and springs, south- facing oak shrubland, and a riparian corridor between, is remarkable and unique in the city. Industries within the park (gravel extraction, asphalt, power station) and development around the park (highways and homes) compromised its value to wildlife and disturbed large swaths of vegetation, leading to erosion and weeds in several areas. Today, its ecological isolation, high human use and the large number of unleashed dogs minimize its importance to larger wildlife and many ground-dwelling animals. However, PHNP is still one of the most ecologically valuable open spaces in the valley. Parley's Creek riparian corridor is the most significant ecological feature, with quality aquatic (fish) and avian (bird) habitat because the stream remains continuous and because birds easily fly between trees on this stretch of creek and others. Endangered Bonneville Cutthroat Trout can be found in this stretch of creek and are thriving in upstream locations. Migratory, neo-tropical birds have historically used the park, and an interesting diversity of raptors, owls and other birds have resided here.

The ecological health of the park's and of the open space network it links to hinges on Parley's Creek. A healthy riparian corridor, including tall overstory trees, low understory shrubs, and good water quality is essential and a priority to the city. A riparian vegetation buffer keeps pollutants that are washed downhill (dog waste, chemicals running off the highways, sediment from eroding areas) from directly entering the stream. It also protects the roots of the larger trees and shades the creek to improve aquatic habitat. Unfortunately, riparian vegetation is missing or damaged in numerous places within the park and subsequently, the creek does not meet water quality standards many times during the year.

Major impacts to the creek include trampling of understory vegetation; "shooting the tube," which leaves large pieces of wood behind; portions of the BMX course that are very close to the creek, and sediment from numerous eroded areas. Other concerns in PHNP include: protecting wetlands and wet spring areas; controlling weeds, which are prevalent in some areas, but still controllable; improving the quality of water exiting several culverts and entering Parley's Creek; and minimizing erosion off steep hillside drainages and from user-created trails.

## Cultural Resources

The period of pioneer settlement and industry was one of intense use of Parley's Canyon and Creek. PHNP was a true crossroads. "The Golden Road" through the park was used by 60,000 immigrants as they entered the valley. Over time, this route also served as a toll road, a sheep road, Pony Express route, stagecoach route, railroad corridor, the Lincoln Highway and eventually Interstate 80.

Several significant structures remain from this "crossroads" era. Dudler's Inn's foundation, wine cellar are likely eligible for the National Register of Historic Places (NRHP) and are documented with the State Historic Preservation Office. The sandstone aqueduct arch from the Pleasant View canal is probably the most visible and impressive feature remaining. The site also has potential to be studied as a Historic American Landscape—a collection of buildings, roads, site features, and human-altered natural areas that tells a story of the place as a whole. Remnant plantings from early settlers, including fruit trees, bulbs and rows of vegetation are evidence of homestead areas. Five interpretive monuments in the park tell many of these stories.

These existing cultural resources are suffering from several different impacts. The aqueduct has a poorly functioning culvert underneath it, which has directed water onto the sides of the structure and the earth below it, causing significant damage. The historic wall is crumbling due to recreation use and trees roots above it. The cellar is a frequent victim of vandalism. Little has been done to protect these features long-term.

## Visitor Experience

PHNP is heavily visited by dog walkers, BMX bikers, people "shooting the tube," hikers and cyclists. Visitation has skyrocketed since the park began to welcome off-leash dog use. This is one of the few natural places people can legally take a dog for a walk off-leash in the city. However, as the character of the park has changed, some people feel like they have been displaced, especially those who used the park to simply experience and appreciate nature. Many of these visitors feel that their experience is hampered by seeing the damage done to park resources by increased use and off-leash dogs.

Accessing the park is another major issue. With limited parking at the main trail into the park, users spill over into the adjacent Tanner Park parking lot and into the neighborhood. Many neighbors complain about trespass by people and dogs), noise and on-street parking filled by park users. Users complain about the main trail into the park becoming very slippery and dangerous in winter months. Parley's Trail (opening in 2010) will make PHNP much more accessible by bike, stroller or wheelchair, although it will not meet ADA standards due to the steep grades in the park. It will also bring more people into the park, close to the historic properties and in close contact with off-leash dogs.

Despite all of the demands on the park, there are only a few improvements (two bridges and two mail trails) and no trash collection, restrooms, or lighting. Most visitors stated they were happy to see it stay that way. Many also stated that their experience depended on feeling like they were in a natural area and that they had the freedom to do what they wanted there.

## Summary

Currently, resource conditions are unsustainable and park usage is expected to continue to rise. Without a change in the current hands-off management approach, the riparian corridor, water quality and historic properties will continue to deteriorate and the future cost to restore them will rise. Many of the policies and regulations that apply to this park and the resources in it are currently not upheld. Enforcement of existing rules is a critical first step, followed by restoring conditions to a sustainable state. *The Comprehensive Use and Management Plan* addresses these issues and proposes solutions that appear to be effective in this context.

## C. Guiding Principles

### 1. Park Significance

Parley's Creek and the land that surrounds it at the mouth of Parley's Canyon has a special place in Utah history as a crossroads, a center of industry, and an important natural corridor. It is one of the largest and most diverse natural open spaces in the Salt Lake valley, and contains one of the most natural and contiguous riparian corridors in Salt Lake City. Its location and topography—a steep gully at the intersection of foothills, canyon and valley containing the largest creek entering Salt Lake City from the Wasatch Mountains—support significant aquatic, riparian, woodland, springs and wetlands and scrub oak-grassland habitats.

### 2. Park Purpose

The 63-acre park was assembled to protect and interpret the natural diversity and cultural artifacts of this corridor along Parley's Creek and to provide an outdoor recreation opportunity in an urban setting. For decades, it has been identified as a critical link in open space and trail networks for the valley, at the junction of the Bonneville Shoreline Trail and the Parley's Trail.

### 3. Planning Constraints

The park is managed within a framework of policies and standards, as outlined in the *Baseline Conditions Report*. In addition to City and County ordinances and plans, it respects the recommendations and needs of other agencies and organizations to the greatest extent possible. Public and stakeholder input is valued and honored to the greatest practical extent.

The following are basic agreements that define the planning framework:

1. As this plan is the city's first management plan for this open space area, previous agreements or precedents here are subject to reconsideration.

2. The park requires management as a natural open space, with different standards and goals from City park management.

3. Recreational use is contingent on the sustainability of park resources. Current unrestricted access will be re-evaluated in light of the equally valid goals of visitor experience and resource protection.

4. Multiple-use recreation will be supported, including off-leash dog recreation, BMX, walking and hiking, biking on Parley's Trail, nature appreciation, and others.

6. Protection of the riparian corridor, wetlands and water quality are the highest priority.

7. All stakeholder concerns are respected and considered, and are balanced with the overall park goals.

*Dogs and their owners on the entry trail.*

*Parley's Creek as it flows through PHNP.*

## 4. Park Goals

These park goals are the result of the *Baseline Conditions* report analysis, stakeholder discussion and public input.

1. Protect riparian corridor and water quality
2. Protect and restore cultural and natural resources
    - Water Resources
    - Plant Communities
    - Wildlife and Habitat
    - Biodiversity
    - Historical Sites
3. Restore damaged areas
    - User-created trails
    - Culverts
    - Stream bank erosion
    - Missing riparian corridor vegetation and habitat
    - Hillside erosion
    - Historic properties
    - Noxious weeds
4. Maintain and enhance multiple uses with minimal conflict
    - Off-Leash dog walking
    - Walking, trail running and hiking including ADA access
    - Regional trails and connections
    - BMX
    - Cycling
    - Water access
    - Nature appreciation and education
5. Identify additional locations for off-leash dog recreation
6. Uphold management responsibilities.
    - Limiting impacts on neighboring properties
    - Disaster prevention, including fire, flood, point-source water quality threats
    - Emergency and maintenance access
    - Ordinances, laws and policies
7. Formalize monitoring and adaptive management
    - Scientific studies to develop Monitoring Baselines
    - Implement Best Management Practices
    - Manage users based on data
    - Multi-Agency coordination
8. Establish and enforce rules
    - Law enforcement
    - Self policing and Volunteer patrol
    - Zoning and conservation easements
    - Signage and interpretation
9. Develop consistent funding sources to implement goals
    - Agency partnerships
    - Grants
    - Private sponsorship

*Many public forums were held at each planning step to gather public input on park issues, goals and planning strategies.*

# D. Comprehensive Use Plan

## 1. Parks and Open Space Management

Salt Lake City owns and manages a variety of land for public recreation, from traditional parks to open space lands. Some properties, such as Cottonwood Park and the International Peace Gardens along the Jordan River, have many features of a traditional park, but also include the more natural Jordan River corridor and trail system. In the past, most of these lands were managed to maximize recreational use. With a new City emphasis on sustainability, open space and managing natural systems, park management needs to be rethought to better protect natural resources and offer a wider diversity of recreation. Salt Lake City is purchasing open space lands, expanding its trail networks, and permitting more off-leash dog recreation areas. The new and evolving demands of an expanding population require a different approach. This plan proposes new management framework that can be applied to all city properties where public recreation is encouraged.

While PHNP was originally planned and donated as a natural open space, for decades, PHNP has been managed in a hands-off manner, allowing unlimited recreation access. This has seriously degraded portions of the nature park. Restoration to a more sustainable, healthy condition will take a substantial investment, likely in the hundreds of thousands of dollars. This cost could have been avoided and must be avoided in the future through active management and oversight of appropriate uses. The City is committed to managing it to a new standard, focused on resource protection in addition recreational use. There requires trade-offs in existing use and future priorities.

## 2. Visitor Experience and Resource Protection Framework

This management plan is the first in the city to utilize the principles of the *Visitor Experience and Resource Protection Framework* (VERP). This management framework was developed by the National Park Service to help address the challenges of visitor use and carrying capacity in light of protecting the special resources for which these parks were established. It is used in many other places with significant resources and high recreation demands. This method recognizes that resource protection and a positive visitor experience are often equal priorities and that the variable that must change is allowing unlimited, unrestricted access. The culmination of this process is applying p*rescriptive management areas* to different parts of the park to reflect different management priorities based on what the landscape can support.

## 4. Prescriptive Management Areas

A new management approach is proposed, called *Prescriptive Management Areas*. This establishes a range from highly-developed and impacted areas of the park to highly protected natural preserve areas. *Prescriptive Management Areas* are applied here to suit PHNP's unique resource and visitation goals, but can also apply to traditional city parks and more remote, protected open space lands. Every park can be mapped according to these zones and maintained and managed accordingly. These designated use areas and designated trails clearly define appropriate uses and expectations.

The *Prescriptive Management Areas* are described here and correspond with the *Comprehensive Use Plan Map* and *Interim Use Plan Map* on the following pages. Not all designations are incorporated in this park plan.

### Trails

- Supports use on the trail only
- Self directed activities, like hiking, biking, dog-walking as directed by trail signs
- Moderately maintained and monitored to promote safety and reduce user conflict
- Lands adjacent to trail are managed to the standard of their prescriptive management area

### Active recreation area

- Promotes and supports heavy use
- Often single-purpose recreation, such as sports fields, picnic pavilions in designated recreation areas
- Heavily maintained and manicured

### Passive recreation area

- Promotes and supports moderate use
- Often self-directed activities, like Frisbee, informal sports games or leisure activities, like reading, painting, learning on improved sites such as turf, courts and improved areas
- Moderately maintained and manicured

### Off-leash dog area

- Promotes and supports heavy use
- Designed and managed to promote off leash dog use
- Heavily maintained to mitigate impacts

### Natural area

- Promotes and supports moderate use in natural setting
- Self-directed activities, like hiking, biking, or orienteering on designated trail or areas
- Moderately maintained to minimize resource degradation (such as reducing weeds, limiting erosion, improving water quality, managing flooding)

### Protection area

- Promotes and supports light use in natural setting
- Self-directed passive activities, focused on the protected resource, such as hiking, education, interpretation, wildlife watching on trails or designated areas
- Maintained to enhance natural system (such as protecting habitat, restoring natural hydrology, adapting to natural changes over time)

### Restoration and Buffer area

- Discourages or restricts access and use from natural areas under restoration or sensitive areas in need of special buffering
- Actively restored, maintained and monitored to improve degraded natural resources or cultural features and protect them

### Preserve area

- Restricts and discourages access and use in sensitive resource area
- Suitable for occasional use for stewardship or education
- Moderately maintained and monitored to conserve unique, high-quality natural resources or cultural features

## 5. Comprehensive Use Plan and Interim Use Plan Map

Understanding that this is an adaptive management plan and that some intervention was required immediately to address unsustainable areas of the park, an *Interim Use Plan* was proposed. The *Interim Use Plan* will guide park management until the park goals are met, as outlined in the *Management Strategies*. This is expected to take approximately three years, provided that the necessary projects are funded and completed, as proposed in a future *Improvements Plan*.

Brief descriptions of each use and Prescriptive Management Area are shown on the maps. Key components of the plan include:

1. Protects the riparian corridor by closing access except in two areas, fencing and restoration planting. Moves trails out of the riparian corridor.
2. Protects wetlands and springs by buffers, boardwalks and moving or closing trails and access.
3. Formalizes the park's trail system using existing major trails and removing dangerous, damaging and unnecessary user-created trails.
4. Changes the dugway entry trail to off-leash and adds handrail fence.
5. Designates off-leash play areas and off-leash trails in suitable locations.
6. Closes the south loop trail to dog all walking during restoration, as identified in Interim Use Map. Reconsiders access and use subject to adaptive management.
7. Closes 2870 East entrance to dog walking.
8. Removes trails north of Parley's Trail. Protects restoration areas created by Parley's Trail construction.
9. Redesigns BMX area to meet riparian corridor standards and removes the spring diversion channels .
10. Evaluates existing trails and designates a sustainable trail system. Closes and revegetates user-created trails not included in the trail system.
11. Protects historic area by delineating access and restoring features.
12. Recommends annexing the park into Salt Lake City and acquiring the UDOT in-holding.
13. Recommends implementing fee system to pay for park maintenance, adaptive management and monitoring.
14. Re-evaluates park conditions after restoration, as identified in *Interim Use Map*. Reconsiders access and use subject to adaptive management.

*View of the different woodland communities in Parley's Historic Nature Park.*

*Stewardship projects are helping to restore damaged areas of the park.*


**Off-Leash Trail**– open to all users and allows for dogs to be off leash on the trail

**On-Leash Trail**– open to all users and requires dogs be on a leash on the trail

**No Dog Trail** – open to users other than those with dogs

**Off-leash Dog Area** – designated area for off-leash play

**BMX Area**– designated area for BMX use

**Natural Area** - moderately maintained to minimize resource degradation

**Protection Area** – Maintained to enhance natural systems including habitat and natural hydrologic function

**Restoration and Buffer Area** – maintained to restore, enhance and buffer critical natural systems including water resources and habitat

# Comprehensive Use Plan Map

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**Off-Leash Trail**– open to all users and allows for dogs to be off leash on the trail

**On-Leash Trail**– open to all users and requires dogs be on a leash on the trail

**No Dog Trail** – open to users other than those with dogs

**Off-leash Dog Area** – designated area for off-leash play

**BMX Area**– designated area for BMX use

**Natural Area** - moderately maintained to minimize resource degradation

**Protection Area** – Maintained to enhance natural systems including habitat and natural hydrologic function

**Restoration and Buffer Area** – actively restored, maintained and monitored to improve and buffer critical natural systems

# Interim Use Plan Map

# E. Adaptive Management Plan

## 1. Adaptive Management

Parley's Historic Nature Park will utilize an *adaptive management* approach for making decisions to achieve park goals. Adaptive management is a structured, iterative process of decision-making that uses ongoing monitoring to guide actions and adapt to future conditions. Monitoring, such as surveys of recreation users, samples of water quality, or measuring vegetation coverage, is used to understand current conditions and whether or not the existing management actions are successful. Adaptive management is essentially "learning by doing."

Figure 1: Adaptive Management


Salt Lake City plans to use adaptive management in this open space park and others to help address changing conditions such as:

- Increasing recreation use
- Restoration projects
- Drought, flood, fire, climate change and other natural acts
- Weeds, erosion and other management goals

As adaptive management is applied to PHNP, the park managers may decide to open or close certain use areas, change an area's prescriptive management strategy, and start restoration projects. Monitoring of conditions is essential, and the city will likely enlist volunteer stewards when possible to help achieve these goals.

The table on the following pages is the adaptive managent tool. It summarizes plan goals, management strategies, policy and management standards, and monitoring required to achieve these goals. It also prescribes actions to take if goals are not being met satisfactorily, to get the park back on track. These strategies correspond the *Comprehensive Use Plan* and *Interim Use Plan Maps*.

## 2. Applicable Policies

Recommended actions support the park's long-term sustainability, minimizing maintenance costs, and ability to enforce the plans. They will also uphold all adopted standards and policies. Several of these are listed in detail in the *Baseline Conditions Report* and include:

1. Existing Parley's Historic Nature Park rules, including rules for Off-Leash Dog Areas
2. Salt Lake City Council actions related to park (1979, 2007, 2011)
3. Salt Lake City and County planning and Animal Control Ordinances
3. Salt Lake City Riparian Corridor Ordinance and Study
4. Salt Lake City Open Space Lands Program Ordinance
5. Salt Lake County Water Quality Stewardship Plan
6. U.S. Clean Water Act and Utah State Water Quality standards
7. U.S. Army Corps of Engineers guidelines for wetlands
9. U.S. Endangered Species Act
10. U.S. Secretary of the Interior's Guidelines for Historic Preservation

see also *Interim* and *Comprehensive Use Plan Map*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| **Goal 1: Protect and restore the riparian corridor.** | | | |
| A. Limit development in the Riparian Corridor.<br>• No disturbance (trails or development) within 50' of creek Average High Water Line (AWHL). Existing bridges and boardwalks may remain.<br>• Limited structures between 25-50' of AWHL, including trails, boardwalks, benches, where impacts can be limited or mitigated. | 1. At minimum, meet Riparian Corridor Ordinance and maintain minimum 50' buffer as needed to protect the creek, vegetation and wildlife.<br>2. Follow permit process outlined in Riparian Corridor Ordinance.<br>3. Support intent of Open Space Lands Program Ordinance. | 1. Collaborate on all proposals for improvements, management and maintenance practices within the park.<br>2. Monitor annually. | 1. Remove non-complying improvements.<br>2. Follow review process through the appropriate board for park improvements. |
| B. Allow streamside activity on designated trails and at access points.<br>• Eliminate user-created access and trails. Move designated trail out of riparian corridor as needed.<br>• Create two shared access points for high-intensity use for recreation and flood debris cleanout. Close and restore all other access points. | 1. Meet the Best Management Practices recommended in the Riparian Corridor Study. | 1. Staff observation of vegetation conditions and user-created trails with monthly spot checks.<br>2. Staff maintenance monthly to address problem spots.<br>3. Monitoring report by staff or trained volunteers 4 times a year in different conditions.<br>4. Use data to indicate target areas for education, signage, or enforcement operations. | 1. Redesign trails and access points and use fencing, signage, education and soft patrol to guide behavior towards compliance.<br>2. If not successful, ticket violators and increase enforcement.<br>3. If not successful, redesign trail, fencing or access points.<br>4. If not successful, consider closing trails or access points. |
| C. Restore and protect riparian corridor.<br>• Close the entire riparian corridor except designated access points for restoration. Use with fencing and warning / education signs.<br>• Replant canopy, understory and shrub riparian vegetation.<br>• Open trails adjacent to riparian corridor only after resources are adequately protected. | 1. Meet the Best Management Practices recommended in the Riparian Corridor Study and the Salt Lake County Water Quality Stewardship Plan.<br>2. Support intent of Open Space Lands Program Ordinance.<br>3. Where possible, support sustainable recreation during restoration projects in off-leash areas, designated trails and BMX area.<br>4. Maintain in restored condition. | 1. Use 2010 Riparian Corridor Study as baseline conditions.<br>2. Staff observation of corridor conditions with weekly spot checks.<br>2. Staff maintenance monthly to address problem spots.<br>3. Monitoring report of bank conditions by trained volunteers 4 times a year in different seasons.<br>4. Use data to indicate target areas for education, signage, or enforcement operations. | 1. Allow access on designated trails and fence restoration closures.<br>2. If successful, consider permeable fence (such as split rail) or remove fence but reinstate restoration fence if conditions deteriorate.<br>3. If not successful, close access to adjacent areas. |

*continued*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| D. Allow natural hydraulic processes of Parley's Creek, such as meandering and flooding.<br>• Avoid new improvements (such as trails, bridges or boardwalks). Where necessary, design and locate them to minimize interference with natural processes.<br>• Interfere or change meandering only to protect neighboring homes, roads and power station.<br>• Manage woody downfall to allow natural processes where possible. | 1. Meet the Best Management Practices recommended in the Riparian Corridor Study.<br>2. Plan for changes likely to occur at 5, 10, 100-year storm events.<br>3. Coordinate with County Flood Control to establish protocol for debris management and cleanout. | 1. Staff observation of conditions with monthly spot checks.<br>2. Staff monitoring and maintenance monthly or after major flood events to look for signs of changing banks, undercutting, erosion and condition of erosion control structures. | 1. Analyze and consider new design following major flood events. Act upon signs of long-term impacts.<br>2. Remove structures that become permanently endangered by new river meanders. |
| **Goal 2: Improve water quality.** | | | |
| A. Restore Parley's Creek water quality.<br>• Mitigate impacts from park use, including dog waste.<br>• Implement Best Management Practices (BMP) for protecting water quality.<br>• Install restroom for park users to reduce water quality impacts.<br>• Prevent point-source pollution from tar/ asphalt pits. | 1. Meet Utah State water quality standards for Domestic Water (1C), Recreation (2B) and Aquatic Life (3A).<br>2. Support mitigation to reverse EPA 303d impaired water quality listing. | 1. Agency monitoring of Parley's Creek at the top, middle and bottom of park to measure change in water quality. Measure turbidity, temperature, e-coli, coliform and dissolved oxygen.<br>2. Baseline test of impact of tar/asphalt pit seep and monitor as needed or remediate if recommended. | 1. Education, signage and soft patrol on Parley's Creek on protecting water quality.<br>2. Signage discouraging use when water quality is dangerous.<br>3. If not successful, increase implementation of BMPs.<br>3. If not successful, close problem-atic creek access points. |
| B. Protect and restore wetlands and springs.<br>• Restore and maintain upland buffer around wetlands and springs to protect them and enhance biodiversity.<br>• Discourage access with fencing, boardwalks, signs and impenetrable vegetation.<br>• Eliminate diversion channels and restore natural drainage pattern of springs on south side. | 1. Maintain 50' buffer around wetlands and springs, as preferred by Army Corps of Engineers. Boardwalk or fence where buffer is insufficient or not possible.<br>2. Maintain in restored condition.<br>3. Open adjacent trails only after resources are adequately protected | 1. Staff observation of conditions with weekly spot checks.<br>2. Staff maintenance monthly to address problem spots.<br>3. Monitoring report by trained volunteers 4 times a year in different conditions. | 1. Fencing, signage, education and soft patrol.<br>2. If not successful, close access to these areas and their buffer areas. |
| C. Minimize impact of culverts and outfalls on Parley's Creek water quality.<br>• Work with UDOT to mitigate erosion at existing culverts.<br>• Prepare Crisis Management Plan to deal with possible catastrophic impacts due to accidents at upstream. | 1. Upgrade outfall structures and restore eroded areas to meet stormwater Best Management Practices and State water quality standard 1C at point it reaches stream.<br>3. Meet future Crisis Management Plan recommendations. | 1. Baseline test of water quality at culvert outfalls.<br>2. Staff or agency monitoring 2-4 times a year at discharge point. Test for pollutants, e-coli, and coliform, sedimentation. | 1. Study effectiveness of culvert structures at protecting water quality.<br>2. If they are not successful, redesign culverts and outfalls that fail to meet standards. |

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| **Goal 3. Protect and restore natural resources and biodiversity.** | | | |
| A. Protect all plant communities.<br>• Increase biomass of riparian corridor, wetlands and springs areas.<br>• Minimize loss of vegetation outside protected riparian corridor and restore shrub and grasslands in key areas.<br>• Increase vegetation buffer around riparian corridor, wetlands, springs and other important plant communities. | 1. Increase number and diversity of vegetation from 2010 baseline, as listed in the Baseline Conditions Report and Riparian Corridor Study.<br>2. Meet Best Management Practices for vegetation and habitat restoration. | 1. Staff observation of conditions with monthly spot checks.<br>2. Staff maintenance monthly to address problem spots.<br>3. Monitor vegetation plots by staff or trained volunteers 1 time a year. | 1. Education, signage and soft patrol.<br>2. Enforcement and ticketing of violations. Increase enforcement if conditions deteriorate.<br>2. If not successful, close access to these areas and their buffer areas. |
| B. Protect and enhance wildlife habitat for a diversity of permanent and seasonal wildlife.<br>• Buffer critical habitat as needed.<br>• Provide habitat improvements, such as diverse vegetation (shrubs, forbs, grasses) and nesting boxes.<br>• Control predatory and undesirable wildlife species.<br>• Minimize potential for harassment of wildlife by users and off-leash dogs.<br>• Create agreement with County Flood Control to allow logs and debris to remain in creek to benefit aquatic life. | 1. Complete a Baseline Wildlife Survey and use to benchmark change.<br>2. Maintain viable populations of indicator species for fish, migratory neo-tropical birds and desirable terrestrial species that are likely to thrive (listed in the Baseline Conditions Report and future Baseline Wildlife Survey) | 1. Monitor indicator species listed in future Baseline Wildlife Survey.<br>2. Monitoring report by trained volunteers 2-4 times a year in different seasons (such as summer, migration season and Audubon Christmas bird count in winter).<br>2. Consider conducting extensive breeding bird survey. | 1. Assess limiting factors and mitigate as needed. This may include increasing buffers, or limiting access through seasonal or permanent closures. |
| C. Restore vegetation to eroded areas, including hillsides, springs, meadows user-created trails and near stream access points.<br>• Create natural barriers, such as rocks or logs to close access.<br>• Use fencing as needed.<br>• Regrade and revegetate trails and eroded drainages. | 1. Achieve no visible trace of previous conditions.<br>2. Follow restoration and maintenance recommendations of the Salt Lake County Open Space Management Plan.<br>3. Follow riparian Study BMPs. | 1. Staff observation of conditions with monthly spot checks.<br>2. Staff maintenance monthly to address problem spots.<br>2. Staff monitoring report 2-4 times a year at problem spots. | 1. Use natural barriers to discourage access and support with education, signage and soft patrol.<br>2. If not successful, enforcement and ticketing of violators.<br>3. If not successful, fence off and close approach areas as well. |

*continued*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| D. Reduce noxious weeds.<br>• Significantly reduce current size of noxious weed areas and control weeds park-wide.<br>• Use integrated Pest Management strategies to minimize ecological impacts. | 1. Follow recommendations of Integrated Pest Management Plan, to be completed in 2011.<br>2. Reduce weeds each year from previous year's level.<br>3. Meet standards and maintenance recommendations of the Salt Lake County Weed Abatement program. | 1. Monitor using spot checks and citizen science reports 1-2 times annually.<br>2. Include weed reporting in the vegetation plot monitoring.<br>3. Use park signage to invite citizen to monitor/report weeds to park managers. | 1. Increase weed management efforts until conditions are sustainable.<br>2. Increase intervention if new infestations are found.<br>3. Close access to areas with weed problems exacerbated by users until conditions improve. |
| E. Protect a healthy forest and restore natural forest processes.<br>• Remove tree swings, camps and other features damaging trees and root areas.<br>• Complete forest health assessment to identify threats to the forest and remove hazardous trees. | 1. Revegetate and regrade to achieve no visible trace of previous damage.<br>2. Complete a Forest Health Assessment and meet its recommendations upon completion. | 1. Staff observation of encroachments with monthly spot checks.<br>2. Staff maintenance monthly to address problem spots. | 1. Remove existing features.<br>2. Education, signage and soft patrol.<br>3. If not successful, enforcement and ticketing of violators |
| **Goal 4: Protect and restore cultural and historical resources.** | | | |
| A. Restore cultural and historic features and landscapes.<br>• Prevent further damage to aqueduct, cellar, walls, landscape features and other historic elements. Restore to stable condition.<br>• Eliminate hazards threatening resources, including poor drainage, encroaching vegetation and misuse.<br>• Prevent further loss of cultural landscapes, including historic trees, property features and remnants of historic trails. | 1. Meet the Secretary of the Interior's Standards for Historic Preservation.<br>2. Meet the guidelines of the Historic American Landscape Survey for documenting and protecting features. | 1. Staff observation with monthly spot checks.<br>2. Monitoring report by trained volunteers 1-2 times a year. | 1. Education, signage and soft patrol.<br>2. If not successful, enforcement and ticketing of violations. Increase enforcement if conditions deteriorate.<br>3. If not successful, close access or use. |
| B. Encourage compatible adaptive reuses that promote restoration and enhance visitor experience.<br>• Designate access trail to historic features.<br>• Consider reusing aqueduct for pedestrian access and overlook. | 1. Prevent measurable damage to the properties. | 1. Staff observation of compliance with monthly spot checks.<br>2. Monitoring report by trained volunteers 1-2 times a year. | 1. Education, interpretive signage and soft patrol. |

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| **5. Maintain and enhance multiple uses with minimal conflict.** | | | |
| A. Support access to park as long as cultural and natural resources are maintained in a sustainable condition.<br>• Designate access in a manner that protects resources and improves visitor experience. | 1. Manage types of use, areas of use and user numbers to maintain no degradation of resources beyond restored conditions. | 1. Staff observations of resource conditions using weekly spot checks.<br>2. Monitoring reports as discussed in other sections. | 1. Education, signage and soft patrol.<br>2. If not successful, fence areas off, redesign or reallocate access.<br>3. If not successful, adopt use controls such as odd-even days, fees, peak time user limits. |
| B. Update and enforce posted park rules:<br>• Post leash and park access rules at each major and minor entrance.<br>• Update park rules to:<br>  • Include standard city park rules.<br>  • Develop and incorporate rules for open space areas.<br>  • Incorporate "Leave No Trace" ethics (see *Best Management Practices*)<br>  • Outline and sign uses and rules for all trails to facilitate compliance with rules. | 1. Compliance with park rules.<br>2. User satisfaction with level of conflict.<br>3. Replace missing and outdated signs immediately. | 1. Establish baseline of user compliance with park rules and conduct baseline user satisfaction survey.<br>2. Build enforcement tracking database to track infraction type, locations, repeat offenders, etc.<br>3. Staff observation with monthly spot checks.<br>4. Monitoring report by staff and trained volunteers 1-2 times a year. | 1. Education, signage, or enforcement operations. Use data to indicate areas to target.<br>2. Education, signage and soft patrol.<br>3. If not successful, ticket violators and increase enforcement.<br>4. If not successful, redesign or reallocate access.<br>5. If not successful, eliminate access by uses that are out of compliance. |
| C. Designate and sign new trail system.<br>• Design trail system that safely accesses suitable locations. Include trails for off-leash dog walking, on-leash dog walking and no dogs.<br>• Close south loop trail to off-leash dogs. Re-evaluate conditions after management and restoration goals are met to assess potential for on-leash use.<br>• Close 2870 East access (Entrance C) to all dog walking.<br>• Close and revegetate trails north of Parley's Trail, subject to successful restoration of area.<br>• Restrict bicycling in the park to Parley's Trail and designated bike access to BMX park.<br>• Close and restore unnecessary, dangerous and damaging user-created trails.<br>• Close access point at Lorien Ave. | 1. Compliance with trail rules, on-leash requirements and trail etiquette.<br>2. Compliance with access closures.<br>3. Meet restoration standards for closed trails and trailside vegetation. | 1. Establish baseline of user compliance with trail rules.<br>2. Staff observation of compliance with weekly spot checks.<br>3. Monitoring report by trained volunteers 1-2 times monthly for first year, then 1-2 times a year afterwards.<br>4. Survey users to gauge their understanding of special areas/regulations. | 1. Education, signage and soft patrol.<br>2. If not successful, ticket violators and increase enforcement.<br>3. If not successful, redesign or reallocate access.<br>4. If not successful, consider closing trails to one or all uses. |

*continued*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| D. Allow BMX subject to appropriate design and riparian corridor permit. Uphold all regulations and best management practices.<br>• Respect Riparian Corridor Ordinance. Stabilize banks, remove features too close to bank, restore riparian vegetation and remove user-created trails to creek. Support revegetation between the jumps by providing water source.<br>• Eliminate channels directing spring water into BMX area and restore wetland vegetation. Provide alternate water source.<br>• Designate bike access to BMX park from Parley's Trail across east bridge. | 1. Restore area and allow no degradation beyond restored conditions.<br>2. If current location cannot meet these conditions, an alternative location may be proposed. | 1. Establish baseline of BMX park conditions and impacts on surrounding areas, including sediment load and health of surrounding trees.<br>2. Establish baseline of user compliance with park rules.<br>3. Staff observation of encroachment, erosion and resource protection monthly.<br>4. Monitoring report by trained volunteers 1-2 times annually. | 1. Design assistance to meet regulations and best management practices.<br>2. Education, signage and soft patrol.<br>3. If not successful, discuss stewardship agreement and possible remedies.<br>4. If not successful, remove use. |
| E. Designate protection areas for wildlife watching, nature appreciation and education and provide sufficient buffer between recreation and preserve areas. | 1. Compliance with protection area rules.<br>2. No degradation of resources and no increase in negative impacts on wildlife and habitat.<br>3. Provide opportunities for nature interpretation. | 1. Survey stakeholders about satisfaction with resource conditions and visitor experience in preserve areas.<br>2. Monitoring and use surveys by staff and trained volunteers seasonally, covering water quality, wildlife counts, vegetation . | 1. Education, signage and soft patrol.<br>2. If not successful, ticket violators and increase enforcement.<br>3. If not successful, redesign boundary or reallocate access.<br>4. If not successful, close preserve area to all visitation. |
| F. Improve signage, interpretation and communication to increase understanding of rules and appreciation for their purpose.<br>• Install regulation and interpretation signs and maintain in readable condition and good repair.<br>• Provide park website with regulations and educational info. | 1. Update signs as needed to support proper behavior, education and stewardship. | 1. Staff spot checks of signage conditions weekly.<br>2. Survey users about knowledge of information on signs to gauge their effectiveness.<br>3. Survey partnership groups annually to see if signs are addressing their concerns. | 1. Change the number of signs, location, design or readability. |
| G. Establish enforcement and education programs with staff, partners and volunteers to educate visitors about park rules, stewardship goals and the park's natural and cultural amenities. | 1. Achieve volunteer presence for 50% of hours during peak times and 10% of hours during non-peak times.<br>2. Develop interdepartmental and intergovernmental partnerships to achieve management goals. | 1. Track actual hours of participation.<br>2. Track interdepartmental and intergovernmental contributions. | 1. Outreach to other individuals or recreation groups to boost patrol numbers.<br>2. Apply user fees or enforcement fines to pay for additional park staff. |
| H. Identify additional locations to provide users an alternative for off-leash dog recreation in Salt Lake City and Salt Lake County. | 1. Identify and develop at least one park with equivalent off-leash dog experience.<br>2. Do not locate off-leash areas in or adjacent to sensitive resources. | 1. Monitor off-leash use levels and recommend providing alternative locations to avoid unsustainable use. | 1. Re-evaluate city resources versus demand.<br>2. Work with Salt Lake County and other municipalities on new off-leash areas. |

see also *Interim* and *Comprehensive Use Plan Map*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| **Goal 6. Uphold management responsibilities.** | | | |
| A. Maintain, monitor and uphold park management plan.<br>• Update City and County ordinances to reflect this management plan.<br>• Clarify inter-jurisdictional responsibilities with Salt Lake County (planning, flood control, parks and recreation, enforcement and management, water quality)<br>• Uphold applicable policies, ordinances, and regulations.<br>• Study adopting consistent park and animal control ordinances for Tanner Park and PHNP for easier compliance. | 1. Legal enforcement of park rules, parking rules, animal control ordinance and all applicable laws and regulations.<br>2. Concurrence between local laws and park regulations.<br>3. Federal and state stream alteration regulations.<br>4. Compliance with Open Space Acquisition Strategy Plan.<br>5. Design and install improvements as required. | 1. Staff observations of compliance using monthly spot checks.<br>2. Annual reporting of enforcement efforts and results. | 1. Focus efforts on priority issues.<br>2. Include recommendations in annual report until they are met.<br>3. Follow review process of applicable board, including Open Space Lands Board, as required. |
| B. Hire and train staff to manage natural lands.<br>• Maintenance staff<br>• Stewardship / Volunteer coordinator | 1. Follow recommendations of Salt Lake County Open Space Management Plan.<br>2. Follow recommendations of Integrated Pest Management Plan, to be completed in 2011. | 1. Annual staff reviews and annual report. | 1. Training updates as needed.<br>2. Increase staffing or volunteer support as needed. |
| C. Limit park impacts on neighboring properties and impacts of neighbors on park.<br>• Install park perimeter fencing where needed to prevent unauthorized access.<br>• Post leash and park access rules at each access.<br>• Request County to post and enforce no-parking zones at 2870 East, SUP building, and Heritage Way.<br>• Remove encroachments on park property immediately.<br>• Establish Memorandum of Understanding with UDOT for use of 15-acre property inholding in the park or purchase it. | 1. Compliance with local laws and park regulations.<br>2. Seek neighbor satisfaction with conditions. | 1. Gather baseline data of crime and nuisance to neighbors.<br>2. Track ticketing and law enforcement in database.<br>3. Monitoring report by trained volunteers 1-2 monthly for first year, then 1-2 times a year. | 1. Education, signage and soft patrol.<br>2. If not successful, ticket violators and increase enforcement.<br>3. If not successful, redesign or reallocate access.<br>4. If not successful, consider closing access point. |

*continued*

see also *Interim* and *Comprehensive Use Plan Map*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| D. Establish a conservation easement on the park property. | 1. Easement shall protect the park purposes of recreation and resource protection.<br>2. Correct easement violations immediately. | 1. Staff observations of compliance with easement using monthly spot checks.<br>2. Monitoring report of easement compliance by easement holder annually. | 1. Education, signage and soft patrol to uphold easement values.<br>2. If not successful, ticket violators and increase enforcement. |
| E. Pursue annexation of park into the City and zone to match park purposes. | 1. Zone shall support purposes of recreation and resource protection. | 1. Annual reporting of compliance with zoning and protection. | 1. Include zoning recommendations in annual report until recommendations are met. |
| G. Designate emergency and maintenance access.<br>• Adopt MOUs with each jurisdiction and agencies (County Flood Control, Utah Power, UDOT, Metropolitan Water etc.) outlining access and maintenance expectations. | 1. Meet the conditions of the conservation easement.<br>2. Establish protocol for using and maintaining these routes. | 1. Staff observations of compliance using monthly spot checks.<br>2. Jurisdictions shall monitor condition of access routes each year and make improvements as needed. | 1. Meet with partners to create and update mitigation strategy. |
| H. Support careful flood control while minimizing its impacts to riparian buffer.<br>• Establish Best Management Practices.<br>• Identify designated access points.<br>• County flood control to build new grate structure at culvert inlet for debris removal.<br>• Preserve access easements. | 1. Meet the conditions of the conservation easement.<br>2. Establish protocol for coordinating cleanouts. | 1. Staff observations of compliance using weekly spot checks.<br>2. Jurisdictions shall monitor condition of access routes each year and make improvements as needed. | 1. Meet with partners to create protocol.<br>2. If conditions are violated, restoration should be at no cost to park owner. |
| I. Write a fire mitigation plan.<br>• Collaborate with appropriate agencies.<br>• Train employees to implement plan. | 1. Minimize potential for fire and its adverse impacts on park and adjacent property. | 1. Staff observations using monthly spot checks of forest hot spots. | 1. Include recommendations in annual report until they are met. |
| J. Understand the City's liability and potential issues from park use, including BMX, trail and creek access. | 1. Post signs that outline user responsibility and "use at your own risk." | 1. Staff observations using monthly spot checks of liability hot spots and remove new hazards as they arise. | 1. Include recommendations in annual report until they are met. |

see also *Interim* and *Comprehensive Use Plan Map*

| Management Strategy | Policy and Management Standards | Monitoring | Adaptive Management Action |
|---|---|---|---|
| **Goal 7.** Broaden community stewardship and appreciation for the park. | | | |
| A. Establish park partnerships and formalize relationship with boards and groups.<br>• Identify and foster relationships with community to help steward the park. Spread stewardship responsibility out among multiple interest groups and formalize responsibilities.<br>• Convene interest groups at least once annually to discuss monitoring results, volunteer projects, capital improvements and management. | 1. Stewardship partners must meet all conditions of their agreement annually to continue their use privileges. | 1. Revisit partnership agreements annually to set current year's goals.<br>2. Conduct annual partnership survey to gauge satisfaction program and overall park management.<br>3. Build tracking database of partners and use for reminders.<br>4. Conduct annual partnership board survey to gauge satisfaction with management and with board functions.<br>5. If agreements are terminated | 1. Rewrite partnership agreements and park privileges if expectations aren't met. |
| B. Encourage use of Salt Lake City 501(c)(3) and relationships to maximize donations and contributions. | 1. Meet IRS standards for non-profit organizations. | 1. Conduct annual audit of organization. | 1. Review audit and implement recommended actions. |
| C. Increase interpretation and education about natural and cultural resources in the park:<br>• Install interpretive signs.<br>• Host interpretive tours.<br>• Provide interpretive materials, tour guides and activity sheets (such as bird lists) on the park website.<br>• Ask park partners to develop and provide programs. | 1. Write interpretive strategy to provide sufficient media and programs to encourage proper stewardship.<br>2. Require one education/outreach effort annually from partnership groups. | 1. Survey partners annually to gauge effectiveness of interpretation. | 1. Revisit interpretive strategy and apply new interpretive methods annually. |
| D. Restoration Projects, Monitoring and Clean-ups | 1. Require one volunteer project annually from partnership groups.<br>2. Meet Best Management practices. | 1. Monitor project completion and success after completion. | 1. Revisit project planning to improve effectiveness the next time. |

## F. Park Management

Aspects of park management are summarized here, and are also included in the *Management Strategies*. The costs of management are summarized in the *Cost Estimate* on the following page.

This park requires a different style of management focused on four components:

- Protecting and restoring natural and cultural resources
- Minimizing and mitigating the impacts of visitor use
- Supporting a positive visitor experience for a diversity of users
- Protecting the safety of park users and neighboring land owners

Management techniques will be recommended in a future *Best Management Practices* document. In addition, guidance on maintenance of natural open space can be found in other city and county restoration and management plans, including:

- *Riparian Corridor Study - Final Parley's Creek Management Plan* (Salt Lake City, prepared by Bio-West, 2010)
    - Recommendations and design details for riparian restoration projects in PHNP. Includes costs of improvements and management.
- *Athletic Complex Riparian Restoration Plan* (Salt Lake City, prepared by *SWCA and MGB+A, 2010)*
    - Details on designing riparian restoration projects and recommendations for weed management and monitoring. Includes costs of improvements, monitoring, and maintenance
- *Salt Lake City Integrated Pest Management Plan* - expected completion fall 2011
    - Information on weed management in PHNP, Jordan River and other open spaces.
- *Salt Lake County Natural Land Management Plan* Salt Lake County, prepared by *Bio-West, 2007).*
    - Information on weed identification and control, erosion control, and fire management.

### 1. Planning and Policies

Park management is a hands-on task. With an adaptive management plan, there is a constant need to propose strategies, implement, evaluate and then change course. In the first three to five years of implementing this plan, there are several critical tasks to begin implementing this plan. These include planning (surveys, studies and strategies) and policies (adopting and updating city policies and regulations).

The appropriate review process should be followed for all policy changes and improvements in the park. This may include review by staff, partners or other agencies, and the Open Space Lands Advisory.

### 2. Enforcement

Enforcement is essential for promoting positive user behavior in the park. Enforcement should be combined with education for effectiveness. Enforcement includes:

- Public Safety (police and fire) to enforce laws and regulations
- Animal Control to enforce animal ordinances
- Park Rangers to enforce park rules
- Volunteer docents to educate visitors on good stewardship and enjoyment of the park

### 3. Maintenance

Maintenance is required to keep the park clean and safe. Maintenance tasks should be performed by a crew trained to deal with the unique needs of an open space park and according to the management

strategies outlined in this plan. Maintenance should be performed by City Parks and Public Lands staff. Costs and details will be outlined in a future *Improvements Plan.* Tasks include:

- Maintain restroom
- Manage pet waste
- Regular maintenance and repair of facilities and roads
- Maintaining signs, fences and trails to ensure safe visitation

### 4. Stewardship

Stewardship is the caring for the park, its natural and cultural resources and its visitor amenities. Stewardship involves many stakeholders and partners to help plan and implement park goals. In PHNP, stewardship is focused on the maintenance, monitoring and education that support the park's environmental, social and economic sustainability. This should be managed and encouraged by a volunteer coordinator in the Parks and Public Lands department. Stewardship projects can also be completed by Parks and Public Lands staff . Stewardship includes:

- Participating in park planning
- Assisting with restoration projects, including weed pulls, plantings, watering, and habitat enhancements
- Assisting with maintenance and improvement projects, including "poop pickups," trail restoration,
- Assisting with monitoring the condition of the park, including weed and wildlife surveys, visitor use monitoring, and sampling
- Leading or participating in educational and interpretive goals
- Encouraging good user behavior

### 5. Monitoring

Monitoring is an essential component of adaptive management. It is necessary to regularly check in on the health of the natural system and the satisfaction of park users. Any areas that are found to be unsatisfactory should be re-evaluated and have a new management approach implemented. It should be budgeted for and completed at least annually, or more frequently as required for certain measures. Monitoring must be included in regular park planning to have an effective "feedback loop."

Monitoring should fulfill requirements of any conservation easement placed on the park, and of any agency regulating the park (for example, Utah State Department of Environmental Quality (DEQ) for water quality). A more complete monitoring discussion is included in the *Management Strategies* table. Monitoring guidelines for Conservation Easements are included in the Appendix.

Monitoring should be planned and executed by Parks and Public Lands department staff. It may be completed with volunteer assistance, such as wildlife counts, weed identification and visitation counts. The Parks and Public Lands department should also have a robust record-keeping system for monitoring results. This is essential for adaptive management. Monitoring costs and details will be outlined in a future *Improvements Plan*. The following table outlines monitoring needs and potential monitoring partners.

| Monitoring Task | Responsibility |
|---|---|
| 1. Water quality | Salt Lake City Public Utilities, Salt Lake County and Utah State DEQ |
| 2. Vegetation | SLC parks and public lands |
| 3. Wildlife survey | Salt Lake City, consultants and volunteers |
| 4. User experience | SLC Parks and Public Lands |
| 5. Trail conditions | SLC Parks and Public Lands |

## 6. Phasing

The recommended timing of improvements focuses on strengthening the park's natural resources first, then improving visitor amenities. The guiding principle is to make the park sustainable and able to accommodate the high visitation it receives. Phasing is always subject to available grant funds, which may help pay for a project.

***First Priority:***

- Restore riparian corridor
  - closure and restoration planting
  - correct BMX intrusions on riparian corridor
  - move trail out of riparian corridor
  - Implement Best Management Practices for water quality
- Protect wetlands and springs
  - close and buffer sensitive areas
- Control access
  - close 2870 East parking
  - close south trail to off-leash and on-leash dogs
  - open dugway trail to off-leash
  - remove illegal uses (tree swing, camps)
  - sign restoration areas (wetlands, springs, historic sites)
- Signage
  - Trailhead and trail markers
- Enforcement
  - park rules by staff ranger
  - animal control
  - ordinances sheriff
- Public outreach
- Monitoring
  - Water quality, restoration plantings
- Identify alternative off-leash locations

***Second Priority:***

- Improve stream access points
- Improve trail system
- Visitor amenities (restroom, pet waste collection)
- Maintenance
- Update policies

***Third Priority:***

- Restore wetlands and springs
- Improve uplands and grasslands
- Restore cultural features
- Improve culverts and outlets
- Stewardship
- Monitoring
- Planning studies

*Restoring damaged and eroding springs and riparian areas is the first priority.*

## 7. Funding

Funding the improvement and management of the park will come from a variety of sources. Partnerships are key to managing this property because there are so interjurisdictional and interagency concerns and because the public is so engaged in park issues. The major funding sources could include: Salt Lake City, Salt Lake County, grants, user fees and donations.

**Salt Lake City** and **Salt Lake County** can continue to explore partnership options with the City to help with funding maintenance, enforcement, stewardship and capital improvements.

**Grants** are available to support many of the biggest challenges at PHNP, including protecting water quality, riparian restoration, historic preservation, and weed abatement. Many of these require matching funds and have stipulations on how the park be managed to protect the investment from the project. This may include access limitations, monitoring or maintenance. Many grants are available from state and federal sources, including:

- US Fish and Wildlife Service
- US Environmental Protection Agency
- Utah State LeRay McAllister Fund
- Utah Department of Environmental Quality
- Utah Weed Abatement
- grants for restoring riparian corridors are outlined in the *Riparian Corridor Study - Parleys Creek Management Plan*

**User fees** are a way to support projects and maintenance that benefit the park and the visitor experience. A combination of daily use fees or season pass option could generate sufficient revenue for park operations. This fee could be collected at a ticket kiosk, like those used for parking. Park users would be required to have a ticket on them while in the park and be subject to random checks for enforcement. Season pass holders could use a key card or pin number to "check in" for a ticket each time they used the park. A kiosk could also be used to monitor the number of users and their home zip code.

Another approach to user fees is to add a fee to the dog licensing fee that could cover the cost of enforcement at off-leash areas. This could be tied to a dog obedience program to issue use permits to owners and pets trained on proper behavior in off-leash areas.

*Proposed fee kiosk design*

Donations are another viable funding source. Many people have donated benches, boardwalks, trail construction and other improvements to the park in the past and are eager to continue helping. The city should establish a wish list of items desired for donation and also make it easy to make cash donations. Donations of volunteer labor and materials for volunteer projects are also essential.

# Baseline Conditions Report

A *Baseline Conditions Report* is a standard tool for land trusts and other easement holders to monitor their conservation properties. This report is intended to serve the same purpose for Salt Lake City and is the first step of a four-step Management Plan for the park.

This report summarizes a wealth of data and information collected in the analysis phase of the project. Many detailed reports, stories, expert testimonies, meeting minutes and public comments, were reviewed to created this comprehensive understanding of existing park conditions. Some of the most pertinent materials will be included in the full Baseline Conditions report, while the bulk of the material will be archived with Salt Lake City's Open Space Lands Program department and with the Sons of the Utah Pioneers library.

This *Baseline Conditions Report* should be updated as new studies and information become available and as conditions in the park change. It serves as the baseline for future monitoring of the park, and should also be updated to include new information gathered from monitoring.

## G. History of Parley's Historic Nature Park

### 1. Establishment:

Parley's Creek and the land that surrounds it at the mouth of Parley's Canyon has a special place in Utah history as a crossroads, a center of industry, and an important natural resource. Parley's Historic Nature Park (PHNP) has been home to many different uses, yet still maintains a natural environment that has supported diverse wildlife and vegetation, and critical water resources—the largest creek entering Salt Lake City from the Wasatch Mountains.

The idea that this culturally and naturally rich landscape should somehow be preserved goes back a long way. In 1921, the Salt Lake City's Commissioner of Parks envisioned a 300-acre linear parkway connecting the mouth of Parley's Canyon to Highland Drive in Sugar House. In 1990, Salt Lake City's Open Space Master Plan and the County's Trail Plan proposed a protected corridor running the length of Parley's Creek with an adjacent trail, which is now being realized as the Parley's Trail. Beginning in 1976, Canyon Rim Citizens Association led a group of neighbors and landowners to propose to city leaders that a park be created in what was known then as Hansen Hollow. By 1985, the numerous acquisitions, donations, and title transfers were complete.

The 63-acre park was assembled with the intention of preventing development and protecting the cultural and natural assets of this corridor along Parley's Creek. This was prior to the city's Open Space Lands Program (established in 2003) and the park was put under the management of the Park's Department. A comparable open space land acquisition today would typically be undertaken by the Open Space Lands Program, and would be more explicit in describing its conservation values and management directives. At the time of establishing the park, several histories and summaries of its natural resources were prepared by volunteers and the city Parks Department was given a general "hands-off" directive to keep it as natural as possible.

### 2. Changing Uses:

Early recreation use of the Hollow was often by neighboring families and kids who swam in the creek, picnicked or watched wildlife from a quiet perch. When Salt Lake City acquired the parcel, it acknowledged the financial limitations and site constraints to developing any significant amenities in the park. Thus, for the next decade, the park received little attention by the city and was left primarily to nature. While the park continued to be enjoyed by neighbors and school groups, it also became attractive place for unauthorized and often destructive uses, including parties, homeless residents, and off-roading. Over time, several new recreation uses became popular, including off-leash dog walking, mountain and BMX biking, and tubing on the creek. Increased use in the park brought a new sense of safety and stewardship and the park slowly became cleaned up, largely due to the volunteer efforts of the people who came to love it.

By the late 1990's the park became a popular destination for people who wanted to walk with their dogs off-leash. At that time, dogs were required to be on-leash in city parks. Understanding the lack of alternatives, enforcement was lenient and Parley's Park became a de facto off-leash area. In 1999, after citizen requests to address the situation here and in other city parks, the Salt Lake City Council approved a resolution to establish a process for creating off-leash areas in city parks. The process was adjusted in 2004 and Millcreek FIDOS (Friends Interested in Dogs and Open Space) submitted a petition to permit off-leash dog use in PHNP. In 2005, the Public Services Department recommended to the Mayor that the park undergo a one-year test period, subject to certain conditions, and to establish an Advisory Panel to discuss and make recommendations about community issues related to the decision. The test period was concluded to the City's satisfaction in November 2006 (although not every condition was met) and the proposal to officially designate off-leash use within the park was adopted in 2007. This proposal was controversial and the discussions and recommendations of the Advisory Panel and related community councils showed divided support but unanimous concern for proper monitoring.

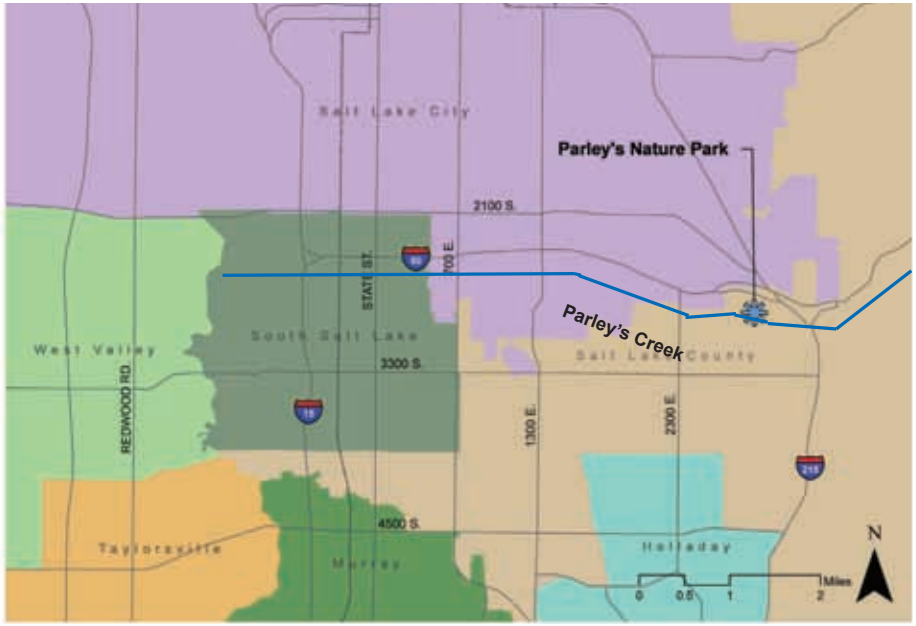
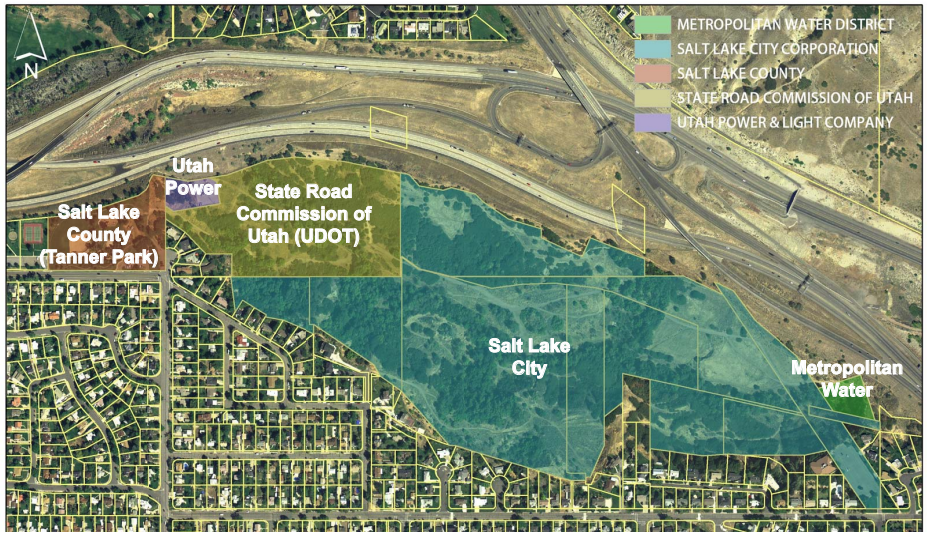



Figure 1: Park Context

Figure 2: Land Ownership in and around the park




## 1. Planning and Stakeholders:

Several conditions necessitated the development of a management plan for Parley's Historic Nature Park. The convergence of these issues makes this management plan timely and demands a comprehensive approach:

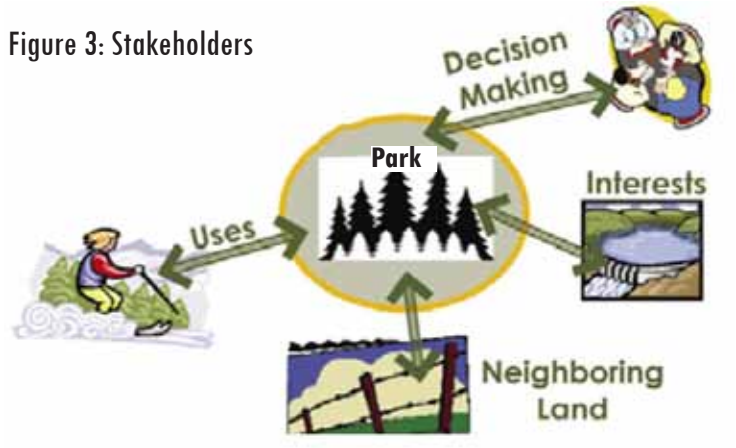
- The completion of a management plan for the park was one of the conditions of Council's 2007 approval for off-leash use in this park.
- In 2007, the Council approved a new Riparian Corridor Ordinance to guide the development and management along the four major creeks in the City, including Parley's.
- Parley's Trail reached a critical point of developing final designs and construction documents for its route through PHNP.
- Salt Lake County Flood Control proposed a new debris catchment at the west end of the park to facilitate debris cleanup and prevent flooding of the Rocky Mountain Power substation.

Stakeholders have a vested interest in the future of Parley's Historic Nature Park. They may have one primary "stake" in the park, or they may have numerous, overlapping connections (see Figure 3). Stakeholders fall into a few broad categories:

- Decision-Makers
- Neighbors
- Users
- Interest Groups

This Management Plan must consider and manage for these numerous, often competing purposes in the park. As the city writes and implements this plan, it is managing not only the relationship of one stakeholder type to the park, but also the relationship between different stakeholders. Thus, the city is also balancing the tangible needs as well as less tangible perceptions and stewardship to make decisions that can be implemented successfully. No one type of stakeholder is more important than another, thus the stakeholder committee is advisory, not a voting body. The policy framework, professional judgment, best practices, and achievability are the ultimate guides for balancing needs in this plan.

Figure 3: Stakeholders




## 2. Decision-Making and Enforcing Agencies:

**Decision-makers** set and enforce the policies and standards that define the framework that the park operates within. Numerous city, county, state and federal agencies are responsible for different facilities and resources in the park and are expected to meet established standards of care there. This includes zoning, ordinance enforcement, upholding federal standards for protecting water, air, and plant and animal species. The park is located in Salt Lake County, but is owned and managed primarily by Salt Lake City. The *Comprehensive Use and Management Plan* will be approved by Salt Lake City Council.

- *Salt Lake City Parks and Public Lands Division* – Plans, manages and maintains PHNP.
- *Salt Lake City Open Space Lands Program* – Makes recommendations on acquisition, maintenance and monitoring of open space lands. Coordinates land use agreements and easements and upholding conservation easements.
- *Salt Lake City Public Utilities* – Manages water quality upstream of the park. May in future manage water quality through this park.
- *Salt Lake City Council* – Adopts city codes, ordinances, zoning, approves city budgets, including requests for park funding.
- *Salt Lake County Planning Commission and County Council* – Adopts county codes, zoning, animal control ordinances.
- *Salt Lake County Recreation* – Owns and manages Parley's Trail and adjacent Tanners Park.
- *Salt Lake County Flood Control* – Owns and manages the flood control devices in the park.
- *Salt Lake County Animal Control* – Enforces city and county leash laws and the on-leash boundaries of PHNP.
- *Canyon Rim Citizens Association (Salt Lake County)* – Advisory role as neighbors to the park.
- *Sugar House Community Council (Salt Lake City)*– Advisory role as neighbors to the park.
- *U.S. Army Corps of Engineers* - Regulates and protects wetlands.
- *Utah Department of Environmental Quality* and *U.S.* Environmental Protection Agency – Protect water quality of surface and ground water.
- *Utah Division of Wildlife Resources* and *U.S. Fish and Wildlife Service* – Protect and enforces protection of threatened and endangered species, species of state interest and fish and wildlife.
- *Utah Department of Transportation* – Owns a 15-acre parcel within park boundaries. Manages the right-of-way adjacent to I-80 and I-215. Provides weed control within easement. Requires access for accident/incident management.
- *Utah State Historic Preservation Officer* – Responsible for protecting state and federally listed cultural resources.
- *Salt Lake County Unified Fire* – Responsible for wildfire control and requires access.
- *Salt Lake County Sheriff* – Enforces regulations and public safety.
- *Rocky Mountain Power* – Owns and operates the power substation within the park.

## 3. Users, Interest Groups and Neighboring Properties

**Users** are the different people who "use" the park. Some visit for recreation, others enjoy it passively, viewing it from a distance, while others may benefit from it economically—such as dog-walking services, a business that sells items that get used in the park or that captures drive-by business of park users. The Rocky Mountain Power substation, Salt Lake County Flood Control and UDOT (managing the adjacent freeway) are also uses. Recreation uses are outlined further in section *E. Visitor Experience.*

**Interest Groups** are based on protecting the uses or inherent qualities of the park. Some groups are active users, while others represent people who don't use the park regularly or even at all but have an interest in its well-being. People who advocate for clean air and water benefit from the natural cleansing of park trees and vegetation. People who want to protect wildlife, biodiversity, and open space often speak out for things that can't speak for themselves. Interest groups that have been or are currently interested in park affairs include:

- *Canyon Rim Citizens Association* – Official Salt Lake County community representative group.
- *Sugar House Community Council* – Official Salt Lake City community representative group.
- *Millcreek FIDOS* – Non-profit citizens group promoting access and education for off-leash dog walkers at PHNP and elsewhere.
- *PRATT (Parley's Rails, Trails and Tunnels)* – Non-profit citizen group supporting Parley's Trail.
- *Utah Heritage Foundation* - Non-profit voice for historic preservation.
- *Utah Open Lands* - Land trust and SLC Open Space Lands partner
- *Utah Rivers Council* – Non-profit organization supporting natural streams, water quality, and water-related habitat
- *Salt Lake City Bicycle Advisory Committee* – Citizen board representing interests of commuter and casual cyclists in the city
- *Audubon Society* – Non-profit membership organization of bird-watchers and supporters of bird habitat

In addition to these groups, 37 organizations were recorded as volunteers that helped to establish the park, including several of the above and Sierra Club, Wasatch Mountain Club, Boy Scouts of America, Handicapped Awareness, Utah Historical Society, Tree Utah, Great Salt Lake Keeper and others.

**Neighboring Properties** are involved by virtue of their proximity to the park. The park may positively impact their quality of life as an amenity or negatively as a source of conflict with park users, increased traffic congestion, potential fire or erosion hazards, or privacy. These affects can spread beyond the immediate adjacent neighborhood to nearby properties.

In addition to nearby homes, important neighbors to PHNP include:

- UDOT (owns 15 acres at the northwest end of the park in addition to their roadway easements),
- Rocky Mountain Power,
- Sons of Utah Pioneers,
- Salt Lake Country Club, and
- Salt Lake County (Tanner Park).

## 4. Applicable Plans and Policies

Applicable plans and policies are summarized here and several are presented in more detail on the following pages.

- Salt Lake City Council Resolutions (1979, 2007 and 2011)
- State of Utah Water Quality Standards
- City Park rules and Parley's Historic Nature Park rules

- *Salt Lake City Riparian Corridor Ordinance* – Limits certain types of development within the defined riparian corridor. PHNP is outside SLC boundaries, but as a city-owned property is a model for other properties and will follow these recommendations
- *Salt Lake City Riparian Corridor Study* – Scientific study of the four major waterways in the city, including Parley's Creek. Includes assessment of the creek's issues and recommendations for improvements.
- *Salt Lake County Zoning*
    - Shown on *Canyon Rim General Plan* as Parks/Public Facilities
    - *Zoned* as Residential (R1-8 on north and R1-21 on south)
    - *Geologic Hazards* – Very low liquefaction on most of site, moderate liquefaction at far west end. No fault lines. Five landslide hazard areas in the park identified by Salt Lake County, based on underlying soil and geology.
    - *Animal Control Ordinance* – Salt Lake County Animal Control enforces County animal control ordinances and is contracted by Salt Lake City to enforce the City's PHNP on-leash dog boundaries and rules.
- *Salt Lake County Natural Areas Land Management Plan*– Gives guidance and Best Management Practices for caring for natural open spaces in the County.
- *Salt Lake City Open Space Master Plan* - Identifies PHNP as a part of the city's open space network and trail system.
- *Salt Lake City Open Space Ordinance* -Authorizes the Open Space Lands program to manage and maintain open space lands.
- *Salt Lake County Off-Leash Dog Park Master Plan* - Identifies potential locations and design and management strategies for parks that allow off-leash dog use.
- *Salt Lake City Off-Leash Dog Area Ordinance* – PHNP has an officially designated Salt Lake City Park Off-Leash dog area.
- *Sugar House Master Plan* (2001) – Recognizes PHNP and the importance of protecting resources and connecting it with trails.
- *Salt Lake City Sustainability Plan Recommendations* (2009) – Recognizes biodiversity as a key goal of the Open Space Lands program.
- *Parley's Trail Master Plan*- Parley's Trail is planned as ten-foot wide, paved multi-use trail. This is the first section of the trail to be built after the construction of the I-215 bridge phase. It sets precedent for use guidelines along the trail. Trail rules may be flexible based on the adjacent uses, but construction using federal funds must follow national environmental and cultural protection policies. Two reports produced for the trail design that analyzed the cultural and natural resources adjacent to the trail provide guidance for the park.

  The trail strives to be an accessible alternative non-motorized transportation route, in accordance with national transportation standards. The City, County and Parleys' Rails Trails and Tunnels (PRATT )will work together to establish trail rules. County proposed permitted uses may include bicycles, walkers, joggers, roller-bladers, skateboarders, dogs on-leash and other non-motorized recreation. Proposed prohibited uses may include horses and motorized recreation.

## Water Quality Standards

The Board as required by Section 19-5-110, shall group the waters of the state into classes so as to protect against controllable pollution the beneficial uses designated within each class as set forth below. Surface waters of the state are hereby classified as shown in R317-2-13.

Parley's Creek and tributaries, from 1300 East in Salt Lake City to Mountain Dell Reservoir are classified: 1C, 2B, and 3A.

**Class 1** -- Protected for use as a raw water source for domestic water systems.

Class 1C -- Protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water

**Class 2** -- Protected for recreational use and aesthetics.

Class 2B -- Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

**Class 3** -- Protected for use by aquatic wildlife.

Class 3A -- Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

*Source: UT Admin Code R317-2. Standards of Quality for Waters of the State. June 1, 2009* http://www.rules.utah.gov/publicat/code/r317/r317-002.htm

## City park rules

1. No smoking, alcohol or drugs.
2. Park open from dawn until dusk.
3. All dogs must be on-leash (except in designated off-leash parks) and owners must pick up their waste.

## Parley's Trail Rules

1. Non-motorized only, including biking, skating and walking.
2. Dogs on leash.
3. Open from dawn to sundown
4. Speed limit 15 mph
5. Bikes yield to all other users.

## Parley's Historic Nature Park - posted Dog Area Rules

1. Handler must accompany dogs at all times. Handlers must be in possession of a dog leash no longer than 6 feet.
2. All dogs must be visible and under voice control of the handler at all times, in all park areas.
3. Remove your dog from the area if it becomes hostile or out of control. Dogs and owners creating a problem must leave.
4. You are required by law to pick up your dog feces. Dispose of them in designated trash cans.
5. All dogs using this area must be licensed and vaccinated for rabies. Dogs must wear licensing tags.
6. Puppies under four months of age are not allowed in this area.
7. Use this area at your own risk. Handlers are responsible and liable for the actions and behavior of their dogs at all times.
8. Dog handlers must take precautions to ensure their dogs do not disturb wildlife and sensitive environmental areas like streams, ponds and historical areas.
9. No digging! Dog handlers must fill holes created by dogs.
10. Owners must quiet dogs that bark, howl, or whine excessively.
11. Dogs in heat are not allowed in this area. Be a responsible pet owner and spay and neuter your dog.
12. Dogs with communicable diseases are not allowed in this area at any time.
13. No more than two dogs per handler are allowed off-leash at any time.
14. Permits are required for organized activities.
15. In case of park emergency, call Salt Lake City Public Service at 535-6999.

When leaving this area, dog owners must leash their dogs and continue to observe all park and local animal control laws. Please respect neighboring property owners.

## WHAT DO THE REGULATIONS MEAN FOR PROPERTY OWNERS IN THE RCO DISTRICT?

The Salt Lake City Council has adopted a program that currently consists of different restrictions in three areas. Existing structures are "grandfathered" as legally complying development.

A Riparian Protection Permit may be needed for certain development activities or uses in the three overlay areas. This permit is required in addition to standard construction building permits and can be obtained from the Salt Lake City Department of Public Utilities.

Property owners contemplating property improvements or new construction should refer to City zoning regulations and contact the City's BUZZ Center at (801) 535-7700 for assistance.

*Here is a summary of what is presently allowed in each RCO area. These regulations are under review and public comment is encouraged.*

### Area A:

**The No Disturbance Area,** covers 0 to 25 feet from the Annual High Water Line (AHWL) and is the most restrictive, prohibiting most types of new construction. Activities allowed in this area *without* a Riparian Protection Permit include removal of storm debris and trash, maintenance of property and existing fences and structures, and planting of native non-invasive vegetation (approved list may be obtained from City Public Utilities or the City Urban Forester). *With* a permit, property owners may develop outdoor projects that do not require the use of heavy equipment, such as stairs or paths between different elevations of the property, fencing, open patios and decks, and low-impact stream crossings. Property owners may also shore up stream banks, with a permit, to control erosion of property as long as the project meets certain requirements.

### Area B:

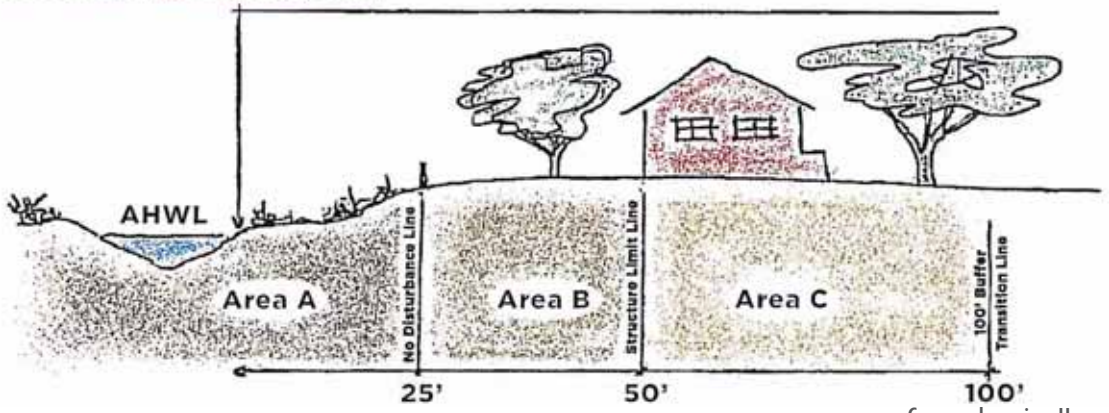
**The Structure Limit Area,** covers 25 to 50 feet from the AHWL and delineates where construction (landscape walls, additions, accessory structures or new construction) can occur. Activities allowed in this area *without* a Riparian Protection Permit include all of those allowed in Area A, plus yard debris composting and new construction, such as fencing and open patios and decks with height restrictions. *With* a permit, property owners may replace existing structures with structures that are similar in size and type, as long as they comply with City zoning regulations.

### Area C:

**The Buffer Transition Area,** covers 50 feet to 100 feet from the AHWL. Activities allowed in this area include all development projects permitted by City zoning regulations and those activities allowed in Areas A and B, with a few exclusions such as leach fields, storm water retention ponds, detentions basins or commercial parking lots.

Property owners along all stream corridors may own pets and the ordinance does not limit pet activities in any way. The ordinance also does not prevent dog-walking in Miller Park.

### 100-foot Riparian Corridor



## 2007 Council Resolution to designate Off-Leash Area in Parley's Historic Nature Park

The City Council of Salt Lake City, Utah, met in Regular Session on Tuesday, July 17, 2007 at 7:00 p.m. in Room 315, City Council Chambers, City County Building, 451 South State.

The following Council Members were present:

| | |
|---|---|
| Carlton Christensen | Van Turner |
| Dave Buhler | Nancy Saxton |
| Dave Buhler | Søren Simonsen |
| Jill Remington Love | |

Cindy Gust-Jenson, Executive Council Director; Sam Guevara, Acting Mayor; Edwin Rutan, City Attorney; and Scott Crandall, Deputy City Recorder were present.

Councilmember Turner presided at and Councilmember Love conducted the meeting.

#4. 8:39:22 PM RE: Adopting an ordinance, resolution or motion to a proposal to amend sections of Salt Lake City Code that would designate Parley's Historic Nature Park as a permitted dog off-leash area.

Councilmember Jergenson moved and Councilmember Turner seconded to adopt a motion establishing the Parley's Historic Nature Park as an off-leash area with the following legislative intents with the understanding that modifications may be based upon the findings of the short term interim management plan and upon the long term findings of the master plan/management plan developed later:

1) accept the attached Parley's Historic Nature Park's working group's findings and recommendations including:
   a) develop a master plan/management plan for the park including a time length for implementation subject to Council approval,
   b) appoint a Park Advisory Board to provide stewardship for the park,
   c) provide financial resources for implementation of the master plan/ management plan including strong enforcement within the park,
   d) recognize that the park has multiple, legitimate users,
   e) develop and strengthen partnership with the County with respect to maintenance and management of the park;

2) accept the proposal from Utah Open Lands to perform a baseline assessment, including documentation of the current ecological conditions, to be completed without delay;

3) as part of the working group's recommendations, develop an interim management plan to be put in place within 30 days, in coordination with the City Council subcommittee, to identify environmentally sensitive areas that are to be closed to access during interim period nesting areas or other sensitive wildlife areas that are to be closed on a seasonal basis, while leaving other areas open for off-leash, BMX and other specific uses. This plan would have timelines for the achievement of specific goals; during the interim period. Also during the interim period the trail and abutting areas from the entrance just east of Tanner Park from the trailhead to the bridge in the park shall be designated as an on-leash area until the alternate on-leash entrance can be established;

4) develop a long term master plan/management plan, subject to Council approval. The plan would recommend long term preservation items including but not be limited to:
   a) Protection of environmentally sensitive areas off main trails;
   b) protection and management of stream beds;
   c) identification of boundaries for a recognized BMX area; added
   d) protection and preservation of wetlands;
   e) planning for main "junction" areas likely to be heavily trafficked and other issues relating to the varying intensities of uses around the park;
   f) enforcement of closed areas and other park rules;
   g) remediation and cleanup of asphalt pieces, tar, and other debris, as identified in the master plan/management plan; mentioned different items in different sections
   h) addressing ADA accessibility issues and identifying options; added
   i) identification of areas that could be best protected by boardwalks;
   j) identification of necessary financial resources to address the goals of the master plan/management plan;
   k) evaluating opportunities to work with other government agencies including Salt Lake County, UDOT, and other federal agencies to:
      i) remediate environmental issues caused by previous actions of those entities;
      ii) find collaboration with enforcement;
      iii) find joint opportunities to provide financial resources.
   h) Identification of potential additional parking areas and evaluation of how to manage special circumstances such as drought conditions;

5) explore opportunities to establish an additional entrance to Parley's Historic Nature Park at the northeast corner of Tanner Park added-Parleys trail that could be combined with additional sections in the western area of the park by streambed, designated as an on-leash area and, with proper engineering, an ADA access area, and I further move that the Council express its commitment to identify additional areas within the City that can be designated or acquired as off-leash areas according to the evaluation criteria in the present City resolution.

## 1979 Council Resolution to purchase land and establish Parley's Historic Nature Park

SALT LAKE CITY CORPORATION

**Resolution of Appreciation**

WHEREAS, the Harvey D. Hansen Family, by and through a family partnership, Hanco R & I Limited, has donated to the City five (5) acres of property located in the mouth of Parley's Canyon, which has a value of approximately $100,000.00, to be used as a City park; and

WHEREAS, said property can be used as a basis to begin development and acquisition of adjacent land for a naturalist park; and

WHEREAS, said land is one of the few remaining parcels in the valley through which a canyon stream still runs and provides the natural habitat for a wide variety of birds and small animals; and

WHEREAS, said land is of great historical significance to the City, as both the former toll road and railway line to Park City transverse this property, as does the original route of the former Lincoln Highway which connected New York City and San Francisco; and

WHEREAS, this generous gift by the Hansen Family shall provide much recreation and enjoyment for the residents of Salt Lake City.

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Salt Lake City on its own behalf and on behalf of the citizens of Salt Lake City that it extends its sincere appreciation to the Harvey D. Hansen Family for its most generous contribution of land at the mouth of Parley's Canyon for the use and development of a naturalist park.

IT IS FURTHER RESOLVED by the Board of City Commissioners that the park be designated as "Hansen Park" and that an appropriate plaque be placed at the entrance of the park, identifying Harvey D. Hansen and his family as donors of the park property.

Passed by the Board of Commissioners of Salt Lake City, Utah this 10th day of May, 1979.

Mayor Ted L. Wilson

Commissioner Jess A. Agraz

Commissioner David C. Campbell

Commissioner Glen N. Greener

Commissioner Jennings Phillips, Jr.

## 2011 Council Resolution to adopt Comprehensive Use and Management Plan

insert upon adoption

## 1. Vegetation

Baseline conditions for vegetation, as shown on Map 1, were documented by in the field mapping, literature review, and interviews with Ty Harrison and Arthur Morris. The field survey occurred on November 7, 2008. Although the schedule was not ideal and most of the vegetation was well headed into dormancy, general vegetation communities were mapped. Wetlands and weeds were mapped in September 2009, and are described and mapped in their own subsections.

### Gambel's Oak Mixed Shrubland

This vegetation type is the most abundant native vegetation type in the park and is common in foothills and intermountain area. It typically grows on north and east facing slopes, but is found on other aspects as well. Gambel's Oak mixed shrubland is found on both steep and gentle slopes with well drained soils. Gambel's oak *(Quercus gambelii)* are highly adapted to fire and other surface disturbances, by resprouting from its root mass creating highly dense thickets. Small clearings of grasslands and forbs are common on more gentle topography. Common wildlife species found in this community are deer, elk, rabbit, turkey, squirrel, and grouse (Pendleton et al., 1992). However, due to the isolation of the park, it is generally cutoff from other core habitat. Due to the level of dog and human activity in and around the park, it is unlikely that any large ungulates or ground dwelling birds remain in the park on a regular basis. Common species found in this plant community include Western wheatgrass *(Elymus smithii)*, Sandburg bluegrass *(Poa secunda)*, creeping Oregon grape *(Berberis repens),* snowberry *(Symphoricarpos albus),* Lanszwert's sweet pea *(Lathyrus lanszwertii)*, chokecherry (Prunus virginiana), golden currant *(Ribes aureum)*, skunkbush *(Rhus trilobata)*, Wood's rose *(Rosa woodsii)*, big toothed maple *(Acer grandidentatum)* arrowleaf balsamroot *(Balsamorhiza sagittata)*, sego lily *(Calochortus nuttalii),* and mule's ear *(Wyethia amplexicaulis).*

### Maple Ravine Woodland

This dense plant community is comprised of predominantly boxelder *(Acer negundo),* mixed with Gambel's oak, western serviceberry *(Amelancier alnifolia),* and bigtooth maple. Maple ravine woodland grows in canyon bottoms and on north facing slopes with plenty of soil moisture. Springs and seeps are common features in this plant community. The heavy canopy of this community provides an important function in shading seeps and springs, thereby improving water quality in downstream drainages. Common understory species include cleavers *(Galium aparine),* common yarrow *(Achillea millefolium),* acumenate onion *(Allium acumenatum),* and mountain brome *(Bromus carinatus).* Numerous bird and other wildlife species are likely to use this vegetation type because of the cover it provides and its proximity to water. The maple ravine woodland provides valuable nesting and foraging habitat for both resident and migrant birds.

### Native Grassland

This grassland is typically found within small openings of Gambel's oak mixed shrubland. It is generally relatively undisturbed and consists of native grasses and forbs. The plant community includes Sandberg's bluegrass, Indian ricegrass *(Achnatherum hymenoides)*, sand dropseed *(Sporobolus cryptaandrus)*, purple three awn *(Aristida purpurea)*, blue grama *(Bouteloua gracilis),* bluebunch wheatgrass *(Elymus spicatus),* squirreltail *(Elymus elymoides),* and needle and thread *(stipa comata)*. Other forbs found in the grasslands include common yarrow, purple beeplant *(Cleome serrulata)*, curlycup gumweed *(Grindelia squarrosa),* sunflower *(Helianthus annua)*, locoweed *(Astragulus sp.).* These open habitats of native grasslands provide valuable habitat for birds such as dark eyed junco, black capped chickadee, white crowned sparrow, house finch and small mammals such as pocket gopher, mice and other small rodents.

### Nonnative Grassland/Ornamental Trees

This plant community is the dominant vegetation in areas that have been previously

disturbed by grading. It is common along the graded freeway slopes on the east side surrounding the soil disposal area and near the substation. The nonnative grasses are dominated by smooth brome *(Bromus inermis)*, with some locations containing cheatgrass *(Bromus tectorum),* crested wheatgrass *(Agropyron cristatum),* and cereal grass. These areas also tend to be somewhat weedy including bindweed *(Convulus arvensis),* alfalfa *(Medicago sativa),* bull thistle *(Cirsium vulgare),* whitetop *(Lepidium draba),* western ragweed *(Ambrosia psilostachya),* cheeseweed *(Malva parviflora),* teasel *(Dipsacus fullonum),* and mustard *(Brasicacea spp.)*. The area along the freeway fill slope has been planted with clusters of Russian olive *(Elaeagnus angustifolia)*. Russian olive is an invasive species, spread by birds eating their fruit. Although these areas tend to be relatively weedy, they are continued to be used by wildlife such as birds and small mammals, similar to native grassland; however, likely less diverse.

### Big Sagebrush Shrubland

This shrub community occurs in clearings within Gambel's oak shrubland and along the margins of woodlands such as along stream terraces and grade changes. This community is found at the higher elevations of the canyon as well as along the bench just above the riparian corridor. This community is dominated by sagebrush *(Artemisia tridentata var. tridentata)* and rabbitbrush *(Ericameria nauseosus),* snakebush *(Gutierrezia sarothrae)* with grasses and forbs found throughout the interstitial spaces. Forbs and grasses include bluebunch wheatgrass, purple three awn, needle and thread, cheatgrass, and curlycup gumweed. Big sagebrush shrubland provides habitat for passerines such as house finches, white-crowned sparrow, as well as small to medium-sized mammals.

### Lower Montane Riparian Woodland/Shrubland.

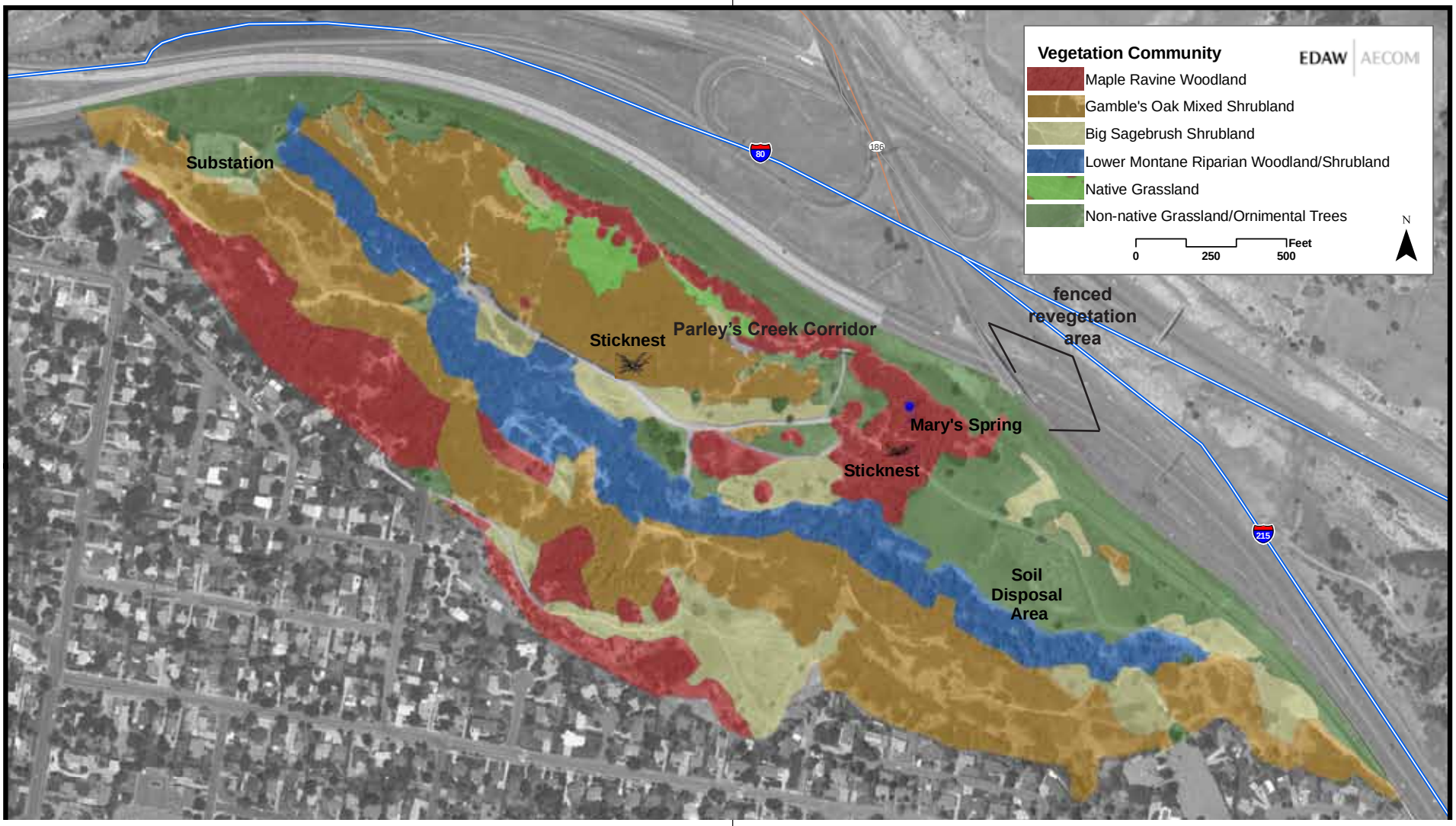
This community is comprised of the riparian corridor that surrounds Parley's Creek. The width of this community along the creek corridor varies and vegetative density based on topography, hydrology, and disturbance. This community is especially important because it enhances flood control and protects water quality. Parley's Creek is home to Bonneville cutthroat trout, which are dependent upon water quality for suitable habitat. The dense canopy shades the creek and keeps water temperatures cool allowing for greater dissolved oxygen capacity. In addition, falling woody debris creates pools and hiding places for fish. Birds such as warblers and owls use the trees for habitat. It is dominated by narrowleaf cottonwood *(Populus angustifolia)*, peachleaf willow *(Salix amygdaloides)*, sandbar willow *(Salix exigua)*, red-twig, dogwood *(Cornus sericea),* golden currant, and chokecherry *(Prunus virginiana).*

### Emergent Marsh

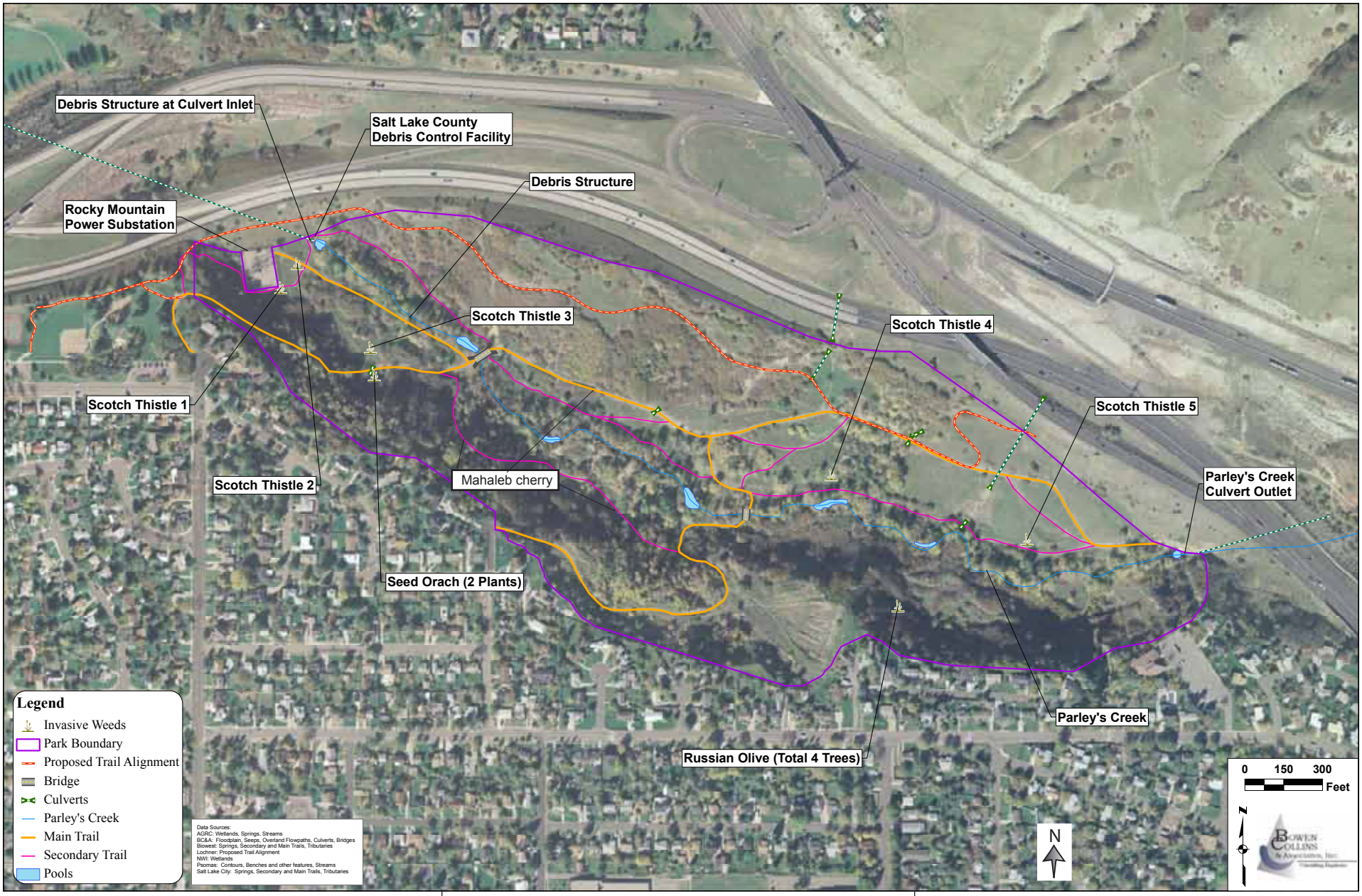
Emergent marsh plant species frequently colonize inundated or ponded areas and are adapted to the saturated and anaerobic soil conditions. These wetlands are mostly found along at springs and seeps and take advantage of the surface hydrology as it drains towards Parley's Creek. Mary's Spring on the north side of the property is the most notable of the emergent marshes. These marshes are dominated by cattail *(Typha sp.),* but sedges *(Carex spp.)* and rushes *(Juncus spp.)* are also present. These seeps and springs provide a source of water for a variety of birds and small mammals. These are shown on *Map 3: Wetlands.*

### Invasive Weeds

Parley's Canyon contains a number of nonnative species. The most invasive are those species that Mahaleb cherry *(Prunus mahaleb)*, firethorn *(Pyracantha sp.),* tartarian honeysuckle *(Lonicera tatarica),* Russian olive, cheatgrass, myrtle spurge *(Euphorbia myrsinites)*, bull thistle *(Cirsium vulgare),* Siberian elm *(Ulmus pumila),* and poison ivy *(Rhus radicans). Map 2: Invasive Weeds* locates the most problematic areas for weeds.




# Map 1: Vegetation / Habitat Types




# Map 2: Invasive Weeds

## 2. Wildlife

No formal, scientific wildlife surveys have been performed at PHNP. Most of the information provided here is from literature reviews, anecdotal sources (including citizen bird counts and wildlife lists), local scientists (including Amy Defreese of U.S. Fish and Wildlife Service and Doug Sakaguchi of Utah Division of Wildlife Resources) and speculation based on location and vegetation/habitat types. Below is a list of common species that have and may occur in the park; however, use cannot be confirmed without formal wildlife surveys.

### Mammals

Red Fox *(Volpes vulpes)*
Raccoon *(Procyon lotor)*
Striped skunk *(Memphitis memphitis)*
Rock squirrel *(Spermophilus variegates)*
Cottontail rabbit *(Sylvilagus audubonii)*
Longtail weasel *(Mustela frenata)*
Meadow vole *(Microtus pennsylvanicus)*
Pocket gopher *(Thomomys bottae)*
Big brown bat *(Eptesicus fuscus)*
Western long-eared bat *(Myotis evotis)*
Little brown myotis *(Myotis lucifugus)*
American deer mice *(Peromyscus maniculatus)*

### Birds

*Grassland*
Lazuli bunting *(Passerina amoena)*
Lark sparrow *(Chondestes grammacus)*
American goldfinch *(Carduelis tristis)*
Brewer's sparrow (Spizella breweri)
Spotted towhee *(Pipilo maculates)*
Blue-gray gnatcatcher *(Polioptila caerulea)*

*Big sagebrush shrubland*
California Quail *(Callipepla californica)*
Horned lark *(Eremophila alpestris)*
Western meadowlark *(Sturnella neglecta)*
Mourning dove *(Zenaida macroura)*
Brewer's sparrow *(Spizella breweri)*
Vesper sparrow *(Pooecetes gramineus)*
Lark sparrow *(Chondestes grammacus)*
Chipping sparrow *(Spizella passerina)*
Violet-green swallow *(Tachycineta thalassina)*

*Gambel Oak Shrubland*
California Quail *(Callipepla californica)*
Lazuli bunting *(Passerina amoena)*
Dark-eyed junco *(Junco hyemalis)*
Spotted towhee *(Pipilo maculates)*
Chipping sparrow *(Spizella passerina)*
Lark sparrow *(Chondestes grammacus)*
American goldfinch *(Carduelis tristis)*
Orange-crowned warbler *(Vermivora celata)*
Blue-gray gnatcatcher *(Polioptila caerulea)*
Lark sparrow *(Chondestes grammacus)*
American robin *(Turdus migratorius)*
Black-capped chickadee *(Poecile atricapillus)*
Warbling vireo *(Vireo gilvus)*
Hermit thrush *(Catharus guttatus)*
Brewer's sparrow *(Spizella breweri)*
Mourning dove *(Zenaida macroura)*
Black billed magpies *(Pica pica)*
Northern oriole *(Icterus galbula)*
House wren *(Troglodytes aedon)*
House finch *(Carpodacus mexicanus)*
House sparrow *(Passer domesticus)*
Bushtits *(Psaltriparus minimus)*
Chukar *(Alectoris chukar)*
Stellar jay *(Cyanocitta stelleri)*
Song sparrow *(Melospiza melodia)*
Western scrub jay *(Aphelocoma californica)*
Lesser goldfinch *(Carduelis psaltria)*

*Maple ravine woodland/Riparian Woodland*
California Quail *(Callipepla californica)*
Northern flicker *(Colaptes auratus)*
Hermit thrush *(Catharus guttatus)*
Orange-crowned warbler *(Vermivora celata)*
Warbling vireo *(Vireo gilvus)*
Chipping sparrow *(Spizella passerina)*
Mourning dove *(Zenaida macroura)*
Black-headed grosbeak *(Pheucticus melanocephalus)*
Dusky warbler *(Phylloscopus fuscatus)*
Broad-tailed hummingbird *(Selasphorus platycercus)*
Black-chinned hummingbird *(Archilochus alexandri)*
American robin *(Turdus migratorius)*
Black-capped chickadee *(Poecile atricapillus)*
Spotted towhee *(Pipilo maculates)*
MacGillivrays warbler *(Oporornis tolmiei)*
American goldfinch *(Carduelis tristis)*
Cordilleran flycatcher *(Empidonax occidentalis)*
Blue-gray gnatcatcher *(Polioptila caerulea)*
Western tanager *(Piranga ludoviciana)*
Mountain chickadee *(Poecile gambeli)*

Lazuli bunting *(Passerina amoena)*
Hairy woodpecker *(Picoides villosus)*
Yellow warbler (*Dendroica petechia)*
Barn swallow *(Hirundo rustica)*
Red-wing black bird *(Agelaius phoeniceus)*
Yellow rumped warbler *(Dendroica coronate)*
Mallard *(Anas platyrhynchos)*
Downey woodpecker *(Picoides pubescens)*
Rough-winged swallow *(Stelgidopteryx serripennis)*
Cliff swallow *(Petrochelidon pyrrhonota)*
Swainson's thrush *(Catharus ustulatus)*
Brown-headed cowbird *(Molothrus ater)*
American dipper *(Cinclus mexicanus)*
Pine siskin *(Carduelis pinus)*
Blue-headed vireo *(Vireo solitarius)*
Calliope hummingbird *(Stellula calliope)*
European starling *(Sturnus vulgaris)*
Rock dove *(Columba livia)*
Common raven *(Corvus corax)*
Ruby-crowned kinglet *(Regulus calendula)*

### Raptors

Cooper's hawk *(Accipiter cooperii)*
Sharp-shined hawk *(Accipiter striatus)*
American kestrel *(Falco sparvarius)*
Barn owl *(Tyto alba)*
Western screech owl *(Otus kennicotti)*
Great horned owl *(Bubo virginianus)*
Northern saw-whet owl *(Aegolius acadicus)*
Red-tailed hawk *(Buteo jamaicensis)*
Merlin *(Falco columbarius)*

### Reptiles

Gopher snake *(Pituophis catenifer)*
Side blotch lizard *(Uta stansburniana)*
Western skink *(Eumeces skiltonianus)*
Tiger salamander *(Ambystoma tigrinum)*
Great basin spadefoot *(Spea intermontana)*

### Amphibians

Western toad *(Bufo boreas)*
Tiger salamander *(Ambystoma tigrinu*m)
Great basin spadefoot *(Spea intermontana)*

### Fish

Bonneville cutthroat trout *(Oncorhynchus clarki utah)*

### Discussion

According to the *Utah Comprehensive Wildlife Conservation Strategy*, lowland riparian habitat (as found in Parley's Nature Park qualifies) is the most critical habitat to wildlife in the state. Utah Division of Wildlife Resources (DWR) assigned scores to 25 habitat types according to abundance, magnitude of threats, and importance to sensitive species and overall vertebrate biodiversity. Lowland riparian represents the lowest percentage of land cover in Utah. It is subject to the highest magnitude of threat yet is one of the most important to sensitive species in Utah and overall vertebrate biodiversity. Because lowland riparian habitat is such a high priority habitat, DWR calls it a "key" habitat for its value to wildlife. Only 10 of the 25 habitat types in Utah are key habitats. Salt Lake City has recognized the importance of riparian corridors in its Riparian Corridor Ordinance and Study. At one time, this Parley's Creek corridor was likely inhabited by a large variety of wildlife including big game as they utilized both mountain and valley habitats. In the last several decades, PHNP has been cut off from the Wasatch Mountains and foothills by Interstates 215 and 80, and by residential development. As a result, large wildlife corridors were severed and habitat fragmented. The occasional deer *(Odocoileus hemionus)*, coyote *(Canis latrans)*, or red fox *(Vulpes vulpes)* may stray from the residential neighborhoods, but high human use and the large number of unleashed dogs and that use the area may deter persistent use of the habitat.

The overall habitat quality throughout the park varies widely. Both the east and west ends of the canyon have been disturbed at one point or another. At the west, there is an electric substation and at the east there was a large disturbance associated with freeway construction and other activities. In addition to the main trail arteries, there are a substantial number of user-created trails caused by both human users and dogs. Some of these trails are up steep slopes and are causing erosion and contributing to sediment deposition in Parley's Creek.

The higher quality habitats primarily consist of the stream and riparian corridor upstream of the west bridge, the maple ravine community, Gambel oak and box elder up the canyon sides, and the native grasslands along the north side of the gully.

Quality aquatic (fish) and avian (bird) habitat remain because the creek corridor is continuous and because birds easily fly between disconnected habitats. Migratory, neo-tropical birds have historically used the riparian corridor, as have other resident birds. Federally listed endangered Bonneville Cutthroat Trout can be found in this stretch of creek and are thriving in upstream locations, but occasional catastrophic fish kills have occurred in recent years from upstream releases of chlorine and other chemicals. The riparian zone has also suffered from erosion, compaction and disappearing understory vegetation due to unlimited access and overuse. In addition, periodic dewatering of the stream threatens its viability as habitat.

The maple ravine community, which tends to grow along moist and well shaded slopes found along the upper sides of the canyon, is also relatively healthy. Since most of the maple ravine community is on steep slopes, the disturbance in this community is relatively limited. However, in some areas trees and their root zones have been damaged, primarily by parties and destructive users. Non-native invasive trees may be the biggest threat here. The dense Gambel oak shrubland is relatively resilient and is adapted for disturbance. It has recently been impacted by the construction of Parley's Trail, and while revegetation is planned, its success remains to be seen.

Disturbed areas recover slowly and are generally revegetated with non-native grassland. These eroded and disturbed areas here are in need of restoration to a more native species composition. Although the restoration of these disturbed sites will need to be done, soil tests will need to be conducted and the sites will need to be studied to determine suitability for which plant community type. Many areas of the park have significantly disturbed soils from past construction that may limit their potential for vegetation and habitat restoration.

One of the most debated issues amongst stakeholders is the degree of impact on native plants, wildlife and water quality attributable to off-leash dog use. Several published scientific studies were referenced for this plan. They are included in *Sources* and summarized in the *Appendix*. The primary concern is the disappearance of riparian understory vegetation due to overuse by people and dogs. This vegetation filters pollutants and traps sediment to keep it from flowing directly into the stream. Without it, water quality is seriously impacted by bacteria, pathogens, metals, organic compounds, and hydrocarbons found in dog waste, highway runoff and other sources. This vegetation also keeps water temperatures cool and is an important component of both aquatic and upland habitat. It also helps protect overstory trees by buffering them from the erosive power of Parley's Creek, helping absorb floodwater and by preventing compaction of their roots..

### 3. Wetlands

Parley's Historic Nature Park contains several areas with wetlands or potential for created or restored wetlands. A site visit was conducted on September 1, 2009 (by Bowen Collins & Associates) to evaluate the existence and location of wetlands here, and map them (*Map 3*). The construction of the Parley's Trail during this field work limited access in some areas. Two kinds of wetlands were found at PHNP, Wet Meadows and Seeps and Springs. Riparian wetlands, which directly adjacent to a stream corridor, are not found at PHNP.

**Wet Meadows,** the most common type of wetland, exist without standing water for most of the year, but the soils remain saturated. Wetland 1 is a wet meadow, approximately 20 feet by 20 feet in size (400 square feet, 0.010 acres). This wetland was also identified in the *Parley's Trail Extension Project* report by consultants (SWCA) based on a 2007

site visit. This wetland would be considered a jurisdictional wetland by the US Army Corps of Engineers because of its connection to water of the U.S. as well as having at least two of the three wetland indicators, which are hydrology, soils and vegetation.

The soils at Wetland 1 remain saturated from runoff from Mary's Spring to the northeast. Surface runoff meanders its way from the spring, through a metal corrugated pipe that crosses below the existing trail, into the wetland and eventually connecting to Parley's Creek through surface drainage. The dominant vegetation in this area is narrowleaf cattail, *Typha angustifolia*. The willows that surround this area make this wetland seem larger than what actually exists. The wetlands may in fact have been larger at one time, but trail construction, diverted runoff and the placement of culverts have constrained the spread of the hydrology.

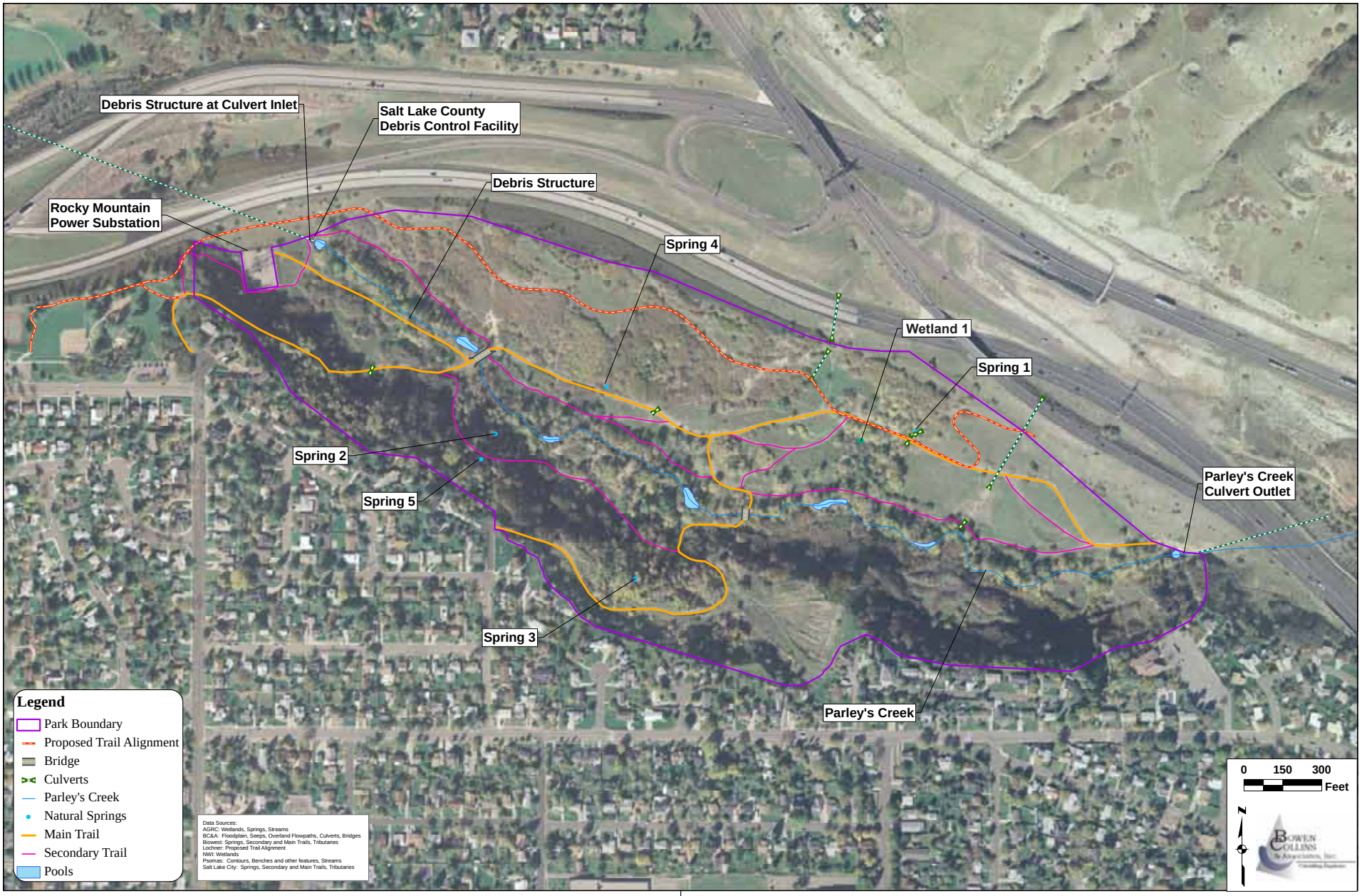
**Seeps and Springs** were identified in the field at three places. Springs or seeps allow for groundwater or an aquifer to reach the surface. These areas are either ponding or trickling through the vegetation and connecting to Parley's Creek. Spring 1 (Mary's Spring) is located on the north side of the existing, main trail and east of the historic wine cellar. (Photo A) This area collects water into a pond that is relatively stagnant. The water collected in this spring is slowly released, crossing under the trail and eventually into the Wetland 1.

Spring 2 and Spring 3 (Photos B, C) are located on the south side of Parley's Creek and are headwater springs that are considered wetlands. These are seeps that come through to the surface and create saturation and a continual flow of water. This is typical of areas with fault lines nearby. These areas, identified as, have been disturbed over time, mostly due to the diversion of water for the construction of the BMX area as well as trails and access to tree swings and other man made attractions. Although the vegetation is sparse due to the disturbance, the vegetation that is present is mostly obligate species, meaning the species almost always occur in a wetland. These species were predominately watercress (*Nasturtium officinale)* and monkey flower (*Mimulus langsdorfii)*. Spring 4 is adjacent to the main trail on the north side of the stream and has a small patch of cattail around it. Spring 5 is adjacent to the trail on the south side of the stream, creating a wet spot there.

Photo A: Mary's Spring.

Photo B: Spring 3 near the tree swing.

Photo C: Springs 2 and 5.




# Map 3: Wetlands

## 4. Hydrology

This summary covers the background data and current conditions of the hydrology, uses of the hydrology, and soils within Parley's Historic Nature Park. The study focused primarily within Park boundaries, but also investigated the history of constructed dams and flow data found upstream of the Park. The analysis consisted of data collection, a review of Salt Lake County Engineering studies of Parley's Creek in 2007, interviews with Salt Lake County Engineers and Salt Lake City Public Utilities as well as several site visits to further evaluate the existing conditions. Field work was completed on February 18, 2009 (by Bowen Collins & Associates) and is shown on *Map 4: Hydrology*.

Parley's Creek through the park is over one half-mile in length and has an average width of 13 horizontal feet. The corridor has several pools that have been created by fallen trees, debris, and rocks. Vegetative cover along the riparian corridor is good, allowing most of the water to remain shaded and keeping water temperatures cool. Several areas of the creek are eroded due to the frequent use of the area by humans and off-leash dogs. The frequency of use and compaction prevents the understory from recovering naturally. A large culvert conveys the creek from the east under Interstate I-215 and a second culvert conveys the creek from the park, under Interstate 80. A debris structure operated and maintained by Salt Lake County Flood Control is located at this exit culvert.

### History

In the late 1800s and early 1900s, the PHNP area was an excellent location for activities that benefit from close proximity to what is known today as Parley's Creek. Naturally, many mill and mining activities follow the topography of the land and were located adjacent to natural resources such as mountain streams. Over time, small dams were constructed in the stream channel to divert water to areas that needed a steady stream flow for consumption purposes, such as the Pleasant View Canal that took water from Parley's Creek to Salt Lake City. Tailwater from these canals eventually discharged back to the main channel of Parley's Creek.

From a review of a 1938 aerial photo and discussions with Steve Jensen (Salt Lake County Engineering), the natural meandering corridor of the creek likely alternated from a single channel to a braided channel, especially as the creek opened up to the valley at the mouth of Parley's Canyon at this Park. Braided channels in the Salt Lake Valley were very common and are sometimes caused by a change in velocities and sediment deposition. As Parley's Creek traveled through the Valley, it met the Jordan River and ultimately discharged into Great Salt Lake.

Water and stream channels were treated much differently during early settlement days than today. Historical photos show that development and activities occurred right up to the creek banks, and in some cases, within the channel of Parley's Creek. Water was diverted, vegetation was cleared, and access roads were developed as needed. Regulations developed in more recent times would prevent many of these activities.

Although Parley's Creek likely meandered historically, it has remained relatively constant during the last 70 years based on an evaluation of the 1938 aerial photo. This is likely due to the construction of Mountain Dell dam in 1924, which effectively eliminated severe flooding. As the activities and uses within PHNP diminished over time, the area restored itself and the stream corridor reestablished to what we see today. Evidence of some activities in the corridor remains. Mining/excavation occurred along the southern scarp of the creek at a now-demolished gravel operation near the current BMX course. Clearing and grading over time resulted in soil sloughing and the creation of steep embankments on the south side of the creek.

### Mountain Dell Dam

Mountain Dell Dam was constructed to provide storage and additional potable water to the Salt Lake Valley. At the time of its completion in

1924, the dam stored up to 3,173 acre-feet of water and was an integral part of the Salt Lake water distribution system. All tributaries of Parley's Creek upstream of the dam are captured and stored in the reservoir. The water is then treated at the Parley's Treatment Plant and conveyed through a pipeline located on the north rim of Parley's Canyon.

The dam was repaired periodically until 1979 when it was determined that the dam spillway did not meet National Dam Safety Program Act Criteria. Over the next ten years, improvements to the Mountain Dell Dam and the construction of the Little Dell Dam upstream improved safety and capacity. Little Dell Dam provides an additional 20,500 acre-feet of storage, which significantly reduces the potential flood flows into Mountain Dell Reservoir. Both reservoirs are currently used to supply water to Salt Lake City's water distribution system.

According to Salt Lake City Public Utilities, there is no base flow or minimum release from the reservoir and throughout much of the year no water is released from the reservoir into Parley's Creek. Generally water is only released from the reservoir if it is anticipated that the spring runoff will fill the reservoir above the standard storage level. Water is also occasionally released to circulate the stored water to improve water quality. In either case, water is usually only discharged from the dam on average once a year starting with a minimum discharge flow rate of 10 cfs (cubic feet per second) and maximum discharge flow rate of 50 cfs. The discharge may last several weeks, and are typically less than 1,000 acre feet total.

## Flow Data

Over forty years of stream flow data was obtained from a USGS stream gage located at Suicide Rock, just east of the Park. This gage is roughly five miles downstream of the Mountain Dell Reservoir and measures the flow in the stream numerous times per day, which includes any water being released from the reservoir and any accumulation of runoff generated from the watershed downstream of the reservoir. Average daily flows are shown in Figure A. The peak average flows range from 80 to 110 cfs during the spring snowmelt runoff, from April to June.

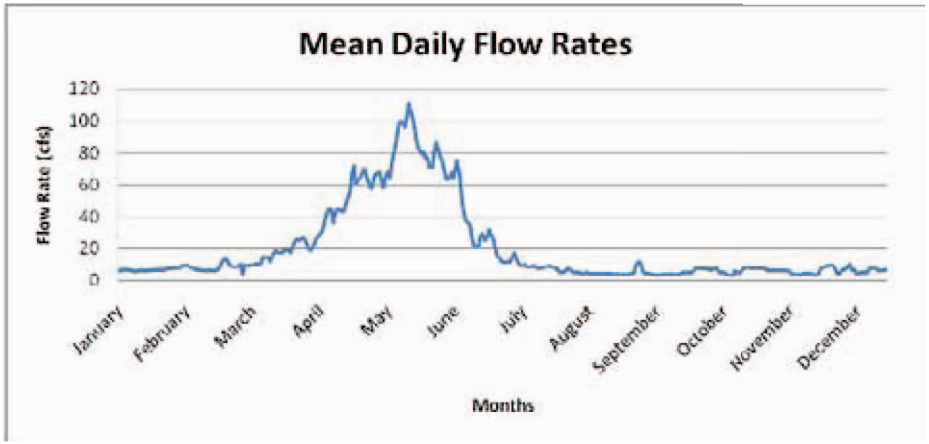
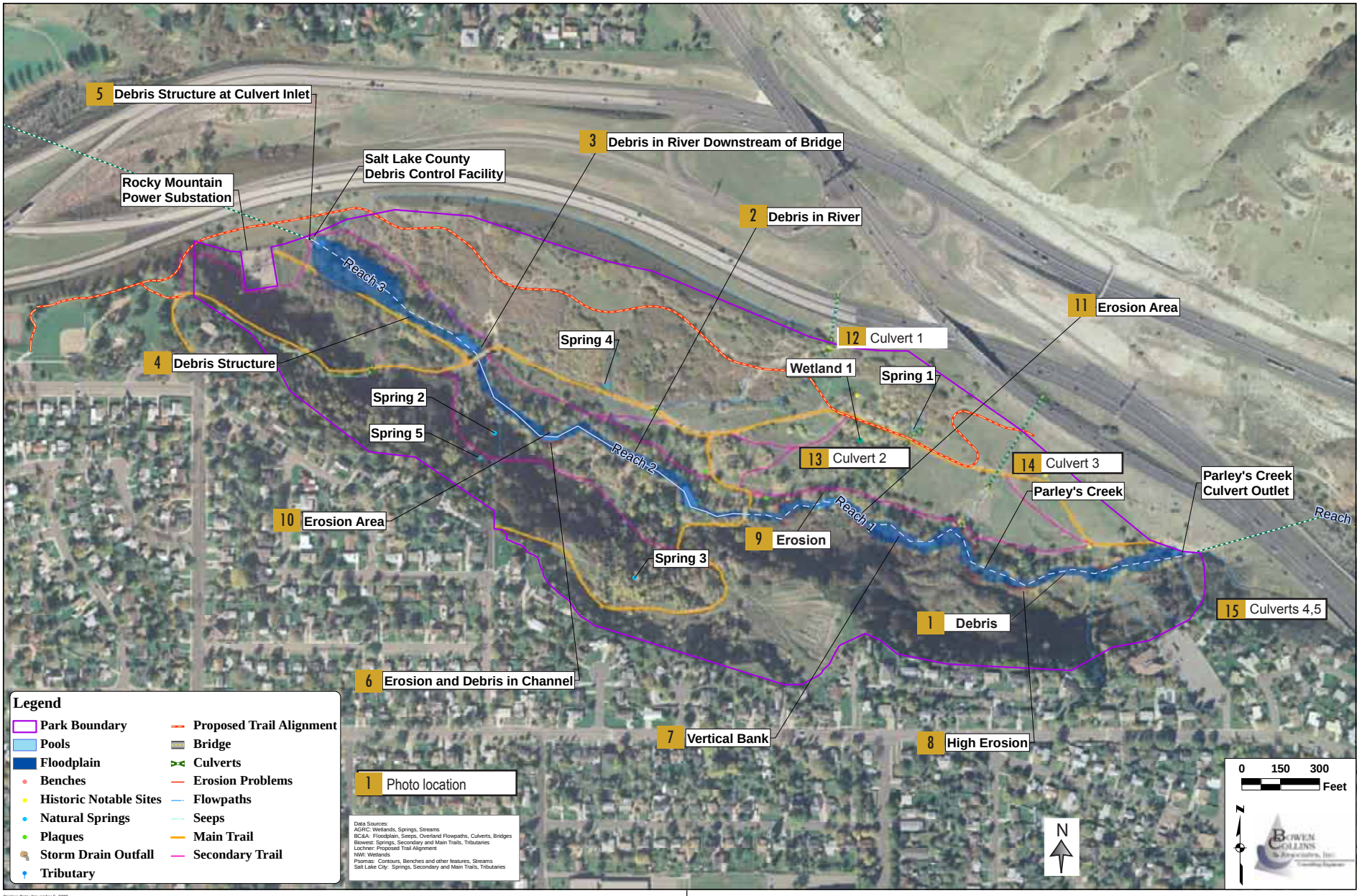



Figure A: Mean daily flow rates based on historic data.

Figure B shows the minimum of the average daily flows. It can be seen from the figure that the minimum daily flow rate during the snowmelt runoff ranges from 4 to 7 cfs, and is about 1 to 2 cfs the rest of the year. The gage record also shows that there have been periods of time when no water was flowing in the river.


Figure B: Minimum daily flow rates based on historic data.

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# Map 4: Hydrology

Note: The existing FEMA map was reviewed and overlaid on a current aerial. The flood plain map did not align with current aerials of the Parley's Creek corridor, therefore, a new model of the flood plain was developed to better define the boundaries. Existing topography and aerial photography was used to make necessary adjustments to the stream centerline.

Directly upstream from the Park, a large culvert allows the creek to flow below Interstate 215. This is a popular area for recreational tubing on the creek. To "shoot the tube," people create removable dams (typically plywood) on the upstream side of the culvert and to back up water and release it once a desired elevation is reached for increased tubing velocities. The surge of water creates higher loads of scouring sediment and deposits it in the creek corridor. Broken plywood and other debris is often left in the creek, eventually requiring cleanup or cleanout.

The outlet of the culvert, west of Interstate 215, discharges into a cobble- lined pool. An outfall overflow from Terminal Reservoir is also released into this pool; however only during storm events. Although the Metropolitan Water District of Salt Lake and Sandy works to control water levels in Terminal Reservoir, it is difficult to predict the use of irrigation during storm events. This water is treated and chlorinated, and when overflow does occur it can result in high levels of chemicals, which can be detrimental to fish.

## Stream bed

Salt Lake County Engineering performed an evaluation of Parley's Creek in 2007. Salt Lake County studied the creek in three sections, Reach 1, Reach 2, and Reach 3, as identified on *Map 4*. Their findings and data sheets are summarized here. The riparian vegetation density is high (60-100%) throughout the creek except for the understory of Reach 3 where it drops to 30-60%. The channel stability rating is good or excellent in all reaches. The streambed sediment supply in the bed and lower bank is generally low, although it is high in Reach 2. The streambed vertical stability is considered stable. The width/depth ratio condition is normal for Reaches 1 and 2, but high for Reach 3. The creek has riffles and pools along its length with the spacing varying between 30' and 100' depending on the reach. The estimated percent length of reach without stabilization structures on one or both sides of the stream is 75-100%.

## Debris Dams and Debris Racks

Fallen wood (debris) in natural streams encourages meandering and creates diverse habitat for aquatic life. There are several naturally-formed debris dams on the creek, created when logs or branches become lodged in the stream channel (Photos 1,2,3). Sediment collects in such areas, further restricting the flow of water. This flooding backwater creates pools that are popular swimming and wading areas, by people and dogs.

These pools can create a flood hazard during periods of high flows. As debris accumulates in the stream channel, the potential of flooding and erosion may increase. Flooding and erosion may also reduce the capacity of the channel, thus forcing itself to become wider and flooding larger areas of the Park. During an increase in discharge from a large storm event or a release from Mountain Dell Reservoir, debris dams may become unstable and breach. Such a breach would result in an increase in flow volume and velocity downstream, which would increase the likelihood of erosion and damage to the channel. There could be additional negative impacts from the material that was forming the dam.

Photo 1: Debris dam and plant growth in the stream channel.

Photo 2: Debris in creek.

Two debris racks have been built on this stretch of Parley's Creek to catch debris and minimize dams and flooding. One debris rack is located near the west end of the creek's reach in the Park. The structure consists of steel I-beams imbedded vertically into the channel and connected horizontally by steel cables (Photo 4). It stops large debris from continuing downstream and potentially clogging the culvert at the west end of the park (Photo 5), which has another debris rack. Debris is removed periodically by Salt Lake County Flood Control.

Wading and swimming in the creek releases sediment, contribute to poor water quality, and disrupt fish habitat, but this use is just one contributing factor. More damage has been done to the riparian corridor by channel maintenance activities, including clearing of debris and access within the creek bed. One known example of this is in 2007, when excess damage occurred as Salt Lake County Flood Control cleared debris to allow for the water to flow without obstructions. Several agencies were notified of the operation and the County has not accessed the creek since and is now required to apply for permits on a stream by stream basis. The County is designing an alternative, improved structure at the west end of the Park upstream from the Interstate 80 culvert to provide one access point for debris and sediment clearing. This area will also be redesigned to provide more flood protection to the adjacent power substation.

## Erosion along Parley's Creek

Streams are among the most dynamic landforms on earth. Streams naturally migrate laterally and change course over time. However, stream flows into Parley's Creek are controlled and released by Mountain Dell dam, so are much less dynamic on average than a free-flowing stream. Channel bank erosion is found on Parley's Creek throughout PHNP. The two primary causes of the erosion on this stretch of Parley's Creek are stream forces and human/animal impacts. *Map 4: Hydrology* shows the areas identified during site visits.

Photo 3: Debris in creek downstream from the bridge.

Photo 4: Debris structure west of main bridge.

Photo 5: Debris structure at west culvert inlet.

Photo 6: Erosion and debris in channel.

Photo 7: Vertical bank.

Photo 8: High erosion potential of a vertical bank.

There are areas along Parley's Creek where the channel has cut so deeply into the bank that the banks are now nearly vertical (Photos 6,7,8). In such areas the bank has been destabilized. These areas tend to be areas of erosion and generate sediment in the stream flow. However, if the creek is allowed to complete its natural cycle, the banks may eventually attain a stable slope and the erosion will decrease or stop completely.

The second cause of erosion of the channel banks is a high concentration of humans, off-leash dogs and other animals stepping on banks to access the river. In many areas in the park, it is apparent that high-traffic access to the river has destroyed the ground vegetation, eliminated natural plant litter, destabilized the banks, caused erosion and endangered trees. (Photos 9,10,11 and *Map 6: Riparian Corridor)*. Unlike the natural stream processes, these areas are more likely to continue to erode and cause further damage to the banks.

While the erosion of the stream banks and the destabilization of the river appear to be a problem in some areas, the sediment deposition does not appear to be a major problem through the study reach. No evidence of significant sediment deposition was found during site visits.

The general overall condition of the stream channel is good. While there are areas where erosion or potential flood hazards occur, there are also long stretches where the river is stable with no major problems.

On the east end of the park, a 48" culvert passes under the trail at a point where the trail is quite close to the stream channel. The trail's proximity and the potential of large flows to pass through the culvert during a storm event threaten to wash away the trail by flood water coming from the culvert and the rising river.

Photo 9: Erosion caused by high-traffic human and dog access to the creek.

Photo 10: Erosion caused by high-traffic access to creek and storm runoff.

Photo 11: Erosion caused by high-traffic access to creek.

## Culverts

A number of culverts are scattered throughout the park (*Map 4*) and vary in their condition and functionality. Poorly-functioning culverts may be causing undue erosion and reducing water quality in the creek. Three of these culverts route off-site runoff from highway storm drainage or the mountains north of the park into Parley's Creek.

A pair of connected culverts are located on the north border of the park, west of the Dudler's Inn historic site (Photo 12). The first 48" diameter, 200-foot long culvert passes under the I-80 and ties into a second 48", 140-foot long pipe that flows into an on-site ditch. The inlet of the

second culvert is roughly four feet lower than the outlet of the first culvert, and the distance between the culverts is relatively small. This configuration is potentially damaging if high flows from the first culvert do not completely flow into the second culvert due to velocities or in-stream obstructions. Any water that overflows this connection spills out onto the hillside and causes erosion problems. It appears to have damaged the aqueduct in places. This second part of this pair of culverts has a outlet approximately 200' to the southwest, where outflow water has eroded a deep, damaging course through native vegetation, over 6' deep in stretches.

A second culvert routes water from Mary Spring at the Dudler's Inn site to Parley's Creek (Photo 13). The culvert is a 30" corrugated metal pipe approximately 40' long.

The third culvert is on the northeast border of the park, east of the Dudler's Inn site (Photo 14). This 48" diameter culvert is roughly 420 feet long. The outlet of this culvert is a wide ditch lined with rock to reduce erosion potential. This ditch connects to a 40-foot long, 48" culvert that runs underneath an existing trail and into Parley's Creek. Erosion has occurred near the existing soft path where the water discharges out of the pipe on the south side of the trail, likely transporting sediment into Parley's Creek. As part of the Parley's Trail Extension Project, this area will be reconstructed with a new culvert. Coordination with the new design and recommendations for erosion control will be further discussed later in the *Improvements Plan*.

The fourth culvert is the Parley Creek Culvert on the far east of the park (Photo 15). This culvert routes Parley Creek underneath I-215 and into its natural channel in the park. An adjacent culvert directs overflow water from Metropolitan Water District of Salt Lake and Sandy's Terminal Reservoir, south of the park, into the creek, while another culvert directs runoff from I-215 onto an area above these two outlets.

Photo 12: Two culverts for routing off-site runoff through the park. The top of the second, buried corrugated metal pipe is visible inside the archway.

Photo 13: Outlet of Mary's Spring through culvert 2.

Photo 14: Outlet of third 48" Culvert.

Photo 15: Outlet of Parley's Creek culvert (left side), highway drainage culvert (above it) and outlet of Terminal Reservoir (right side).

## 5. Water Quality

Water quality is a concern of park users and managers, as it pertains to habitat quality, human and pet safety, and for downstream impacts on the Jordan River and Great Salt Lake. Water quality studies were not included in the scope of this Management Plan, nor in the scope of the Riparian Corridor Study. However, Salt Lake County commonly performs water quality assessments and has been sampling Parley's Creek in PHNP for the Jordan River TMDL (Total Maximum Daily Load) study. Data was collected in summer 2007 and in summer 2009. Samples were also collected by Salt Lake County Watershed Planning and Restoration, Salt Lake City Public Utilities and the Utah Division of Water Quality in 2010.

The preliminary data analysis from these different sampling sources indicate that water within the park quality may not meet state standards (outlined below), particularly for e-coli contamination. Their study indicates the likely source of the e-coli is dog feces. Non-compliance can lead to listing on the EPA's Draft 303D listing. If water quality in the park continues to be impaired, it could lead to closure of creek access by the Salt Lake Valley Health Department. Allowing human and pet access to potentially hazardous water is a concern.

The State of Utah Water Quality Board has rated Parley's Creek and tributaries, from 1300 East in Salt Lake City to Mountain Dell Reservoir to protect against controllable pollution the beneficial uses designated within each class as set forth below. Parley's is protected by the State of Utah for:

***Class 1C*** - Raw water source protected for domestic water systems with prior treatment by treatment processes as required by the Utah Division of Drinking Water

***Class 2B*** - Protected for infrequent primary contact recreation and for aesthetics. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

***Class 3A*** - Protected for use by aquatic wildlife - cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

*(Source: UT Admin Code R317-2. Standards of Quality for Waters of the State. June 1, 2009* http://www.rules.utah.gov/publicat/code/r317/r317-002.htm)

Other past and present water quality problems within PHNP include discharge of highly-chlorinated water from upstream treatment plants (leading to fish kills), highway runoff (including petroleum, salts, lead), paint and garbage left behind at Suicide Rock and historical tar pits that seep directly into the creek. Water upstream of Parleys Creek is captured in Little Dell and Mountain Dell reservoirs and used for drinking water for Salt Lake City. Salt Lake City owns the water rights to water captured in Mountain Dell and will take water from Little Dell as needed for the City's potable use. Because this stretch of Parley's Creek is not City watershed, the City has been minimally involved in its protection or studies to date.

Water quality is a good indication of overall ecosystem health. Water quality problems are often found in tandem with erosion, pollution, declining wildlife, and loss of vegetation. Thus, water quality assessments can be a monitoring tool to determine how well overall PHNP management goals are being met. But first, management goals must be defined, and then it should be determined what to test and how. Assessments should at minimum include e-coli, water temperature, dissolved oxygen and turbity. The City should work with its partners to determine what needs to be monitored and who can perform the work.

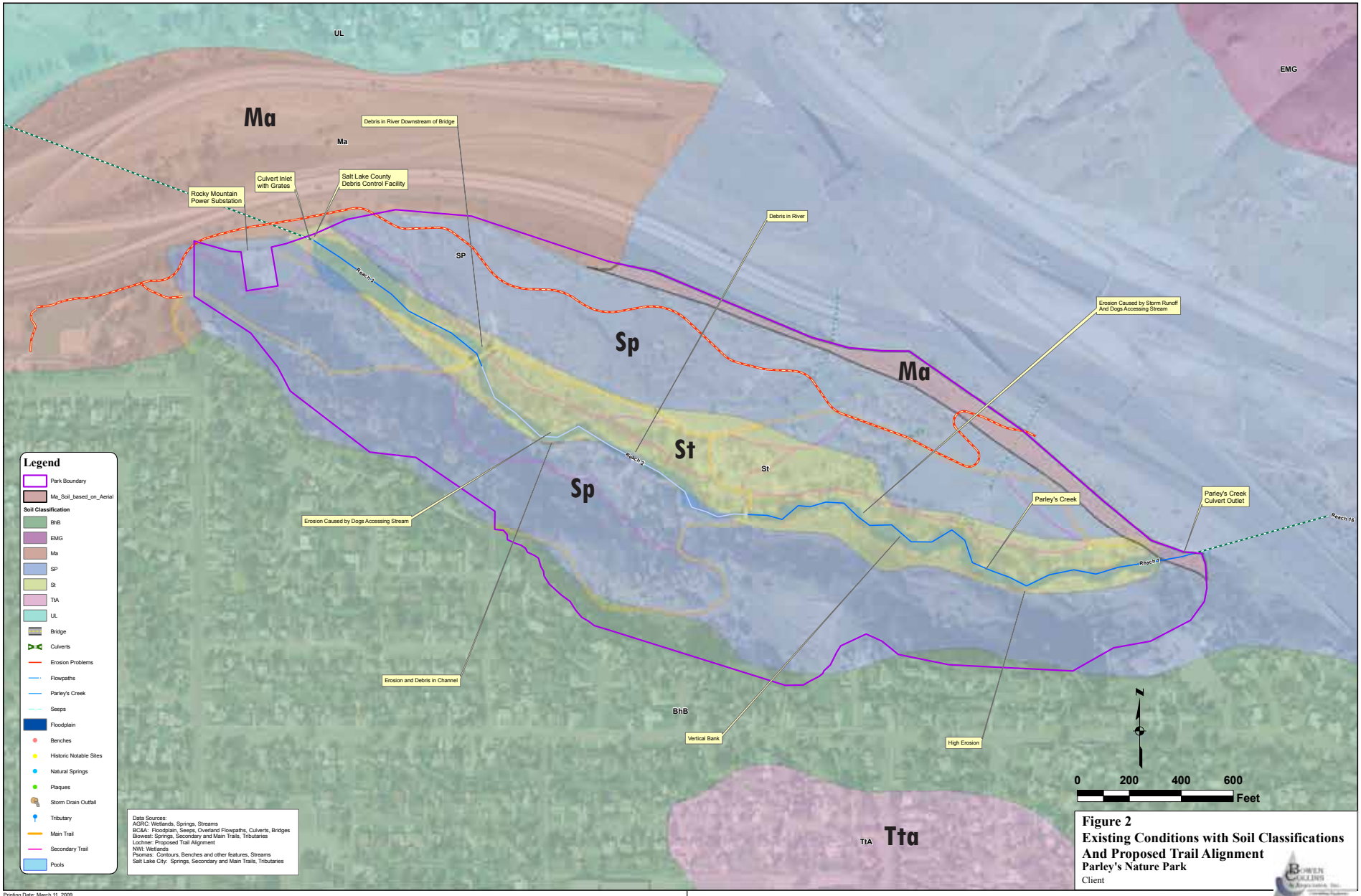


**Figure 2**
**Existing Conditions with Soil Classifications And Proposed Trail Alignment**
**Parley's Nature Park**
Client

Printing Date: March 11, 2009
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# Map 5: Soils

## 6. Soils

The three dominant soil types found in the park, as defined by the Natural Resource Conservation Service (NRCS), are Stony Terrace Escarpments (SP), Stony Alluvial Land (St) and Made Land (Ma). Made Land are sections that were filled either for development or highway construction. *Map 5: Soils* shows the fill extends between 100-200 horizontal feet from the edge of the highway into the park. There are additional known areas of Made Land in the northeast of the park from construction of Interstate 80, Interstate 215 and Parley's trail, therefore *Map 5* modifies the NRCS areas to show an additional 4 acres that is likely Made Land. More area could be verified as Made Land with a geotechnical investigation with soil borings to verify the soil profile.

The following two soil types are defined by the NRCS.

SP—*Stony terrace escarpments*

- Elevation: 4,200 to 5,200 feet
- Mean annual precipitation: 14 to 18 inches
- Mean annual air temperature: 49 to 56 degrees F
- Frost-free period: 130 to 180 days

St—*Stony alluvial land*

- Elevation: 4,200 to 4,400 feet
- Mean annual precipitation: 13 to 16 inches
- Mean annual air temperature: 48 to 50 degrees F
- Frost-free period: 130 to 150 days
- Landform: Flood plains
- Slope: 0 to 20 percent
- Drainage class: Somewhat poorly drained
- Frequency of flooding: Frequent

St—Poorly drained soils

- Landform: Flood plains
- Ecological site: Wet Saline Meadow

Ma—*Made Land*

- The NRCS does not define this soil type because it varies widely. Made land is soil imported to site or altered as a result of heavy grading. This frequently results in poor soil composition, low organic material, weed seeds, and a lack of native seed bank.

## 7. Riparian Corridor

Salt Lake City Council Public Utilities is coordinating a study of four of the City's riparian corridors – Parley's, Red Butte, Emigration and City Creeks. This study will help refine the newly-adopted Riparian Corridor Ordinance and set forth Best Management Practices for land planning, design and restoration along these streams. The study (conducted by Bio-West) began in Summer 2008 and will be completed in Summer 2010. Each year, two creeks will be intensively studied and recommendations will be made for improvements. Parley's Creek will be studied in 2009, but preliminary field work and recommendations for Parley's Creek through the park was completed in December 2008 to meet the schedule of the PHNP Management Plan. This section summarizes the preliminary analysis and includes their mapping of existing conditions on *Map 6: Riparian Corridor.*

Water from Lambs Creek and Dell Creek upstream of Mountain Dell and Little Dell dams is contained and discharged into Parley's Creek as needed to control floods and supply water demands. Depending on the year, this may be one time in spring, or several times throughout the year. Tributaries to Parley's Creek downstream of the dam contribute a current, steady flow. This water provides year-round flow and contributes to a stable riparian density and diversity. Fisheries and riparian vegetation thrive along Parley's Creek, unlike other drainages in the valley where water is almost completely allocated and diverted before it reaches the valley bottom.

This reach of Parley's Creek through PHNP is one of the most natural riparian corridors in Salt Lake City. It is a long stretch with few obstructions or constructed elements. City ownership has prevented encroachments on the stream, such as fencing, piping, or channelizing into hard banks, commonly found on many other streams with largely private land ownership. The stream has a wide riparian corridor with room for the stream to alter its course, suggesting good potential for restoration projects. However, the riparian corridor has suffered from the impacts of heavy, continuous recreational use and flood control management.

The primary problems identified in the riparian corridor are:

- Trails and access points directly adjacent to the creek have eliminated understory vegetation and created erosion and compaction problems that further compromise the ability for vegetation to grow back and help hold banks in place.
- Proliferation of user-created trails, leaving few parts of the stream untouched.
- Narrower floodplain and channelization in areas where banks have been hardened by compaction, trails, or rip-rap.
- Damage to vegetation and banks caused by flood control activities that could be limited to fewer, more stable locations.
- Hillside erosion on the slopes that surround the park, and erosion from poorly-directed culverts entering the stream, both contributing excess sediment to the water.
- Invasive plant species, including Russian olives.
- Miscellaneous trash and remnant construction (old culverts, concrete chunks)
- Need to protect seeps and springs around the park.
- Turbidity and erosion caused by dogs, wading, and tubing in the creek that reduces the water quality and habitat suitability.

Photo 16: Absent understory vegetation and tributary erosion.

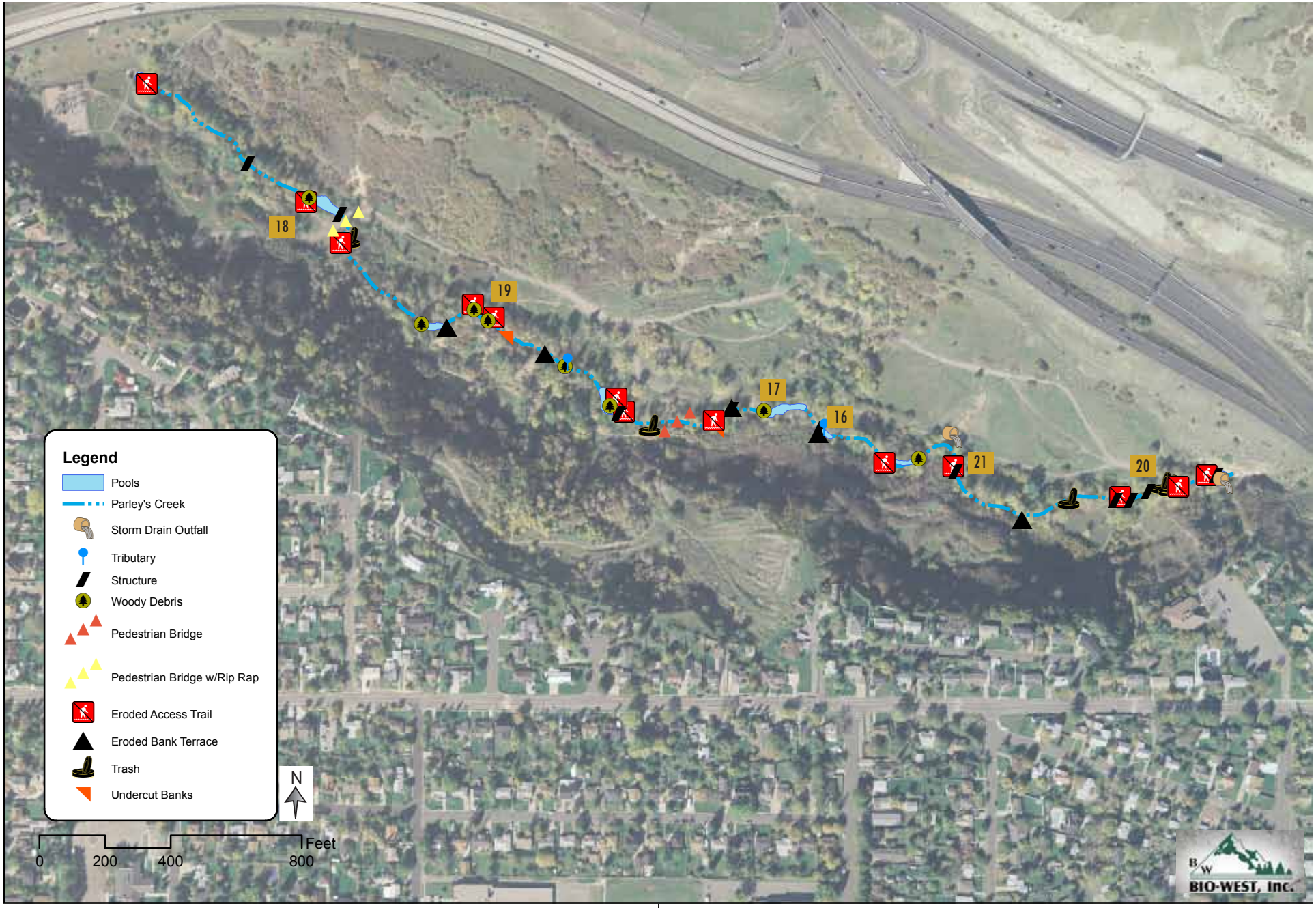
Photo 17: Bank hardening from trail and rip-rap.

Photo 18: User-created trail to access creek.

Photo 19: Bank erosion adding sediment to the creek.

Photo 20: Trash and remnant construction materials in the creek.

Photo 21: Turbidity and erosion.




# Map 6: Riparian Corridor

## J. Cultural Resources

Little evidence remains today of the bustling industry that once occupied this corner of the Salt Lake valley. Since the arrival of the Mormon Pioneers, this stretch of Parley's Creek and Canyon was integral to Salt Lake City's growth and settlement. The naturally strategic location certainly has evidence of settlement and use from pre-history through modern times, but only a few key items remain and little work has been done to uncover more. Some evidence of the over 160 years of industry, infrastructure, and settlement in and around the park can be found, but highway construction and mass grading has erased much of it. The remaining historic sites are deteriorating every year, due to park use, encroaching vegetation, and erosion from poorly-directed drainages and culverts. These are shown on *Map 7: Cultural Resources.*

### 1. Pre-History

Before the arrival of European settlers, Parley's Creek was undoubtedly important to American Indians who may have utilized the creek, hunted the wildlife in the canyon corridor, and used Suicide Rock as a lookout point. No known studies of pre-historic sites have been completed for PHNP and sites have likely been significantly disturbed by past construction. This story remains untold and ready for basic study and interpretation.

### 2. History

The period of pioneer settlement and industry was one of intense use of Parley's Canyon and Creek. Parley's Historic Nature Park was a true crossroads. Several different routes were explored and used by pioneers coming to Salt Lake City, but the path through Parley's Canyon and through PHNP, also known as "the Golden Road," came to predominate. An estimated 60,000 immigrants passed along this route, and over time, it served as a toll road, a sheep road, Pony Express route, stagecoach route, the Lincoln Highway and eventually Interstate 80. The Eastern Utah Railroad was built in this same corridor, hauling coal, freight and finally passengers to and from Park City and beyond. Dudler's Inn was established to capitalize on this trade and remained one of the longest-lasting uses of the site.

The park's location at the canyon mouth was strategic for industry as well as transportation. Parley's Creek powered several mills and provided irrigation water. Kanyon Creek Mill once sat just west of the park, built with the intent of producing flour, then shifting to wool, then cotton, then paper. Mill workers built homes in the vicinity, many within the boundaries of the park. An 1888 map shows a forted house and an ice business in the hollow, using small ponds to freeze creek water. A large diversion of Parley's Creek was built just east of the park, creating the Pleasant View aqueduct that ran through the park and is still partially visible today. In 1891, a large reservoir was built on the north side of Suicide Rock and served until the first Mountain Dell reservoir was constructed in 1915. A number of farmsteads came and went in the hollow, but competition for water and flat land was always tight. In the 1920s to 1950s, a sand and gravel operation ran on the creek at about the midpoint of the park. Extraction, washing and settling operations changed the creek alignment, and asphalt pits were constructed.

After that time, the park saw sporadic proposals for urban development. A portion of the Salt Lake Country Club's golf course was built in the hollow in the 1920s until it was removed to facilitate construction of Interstate 80 in the 1962. A proposed health club in the 1950s started with construction of a swimming pool in the park, which was soon abandoned and filled in. In the 1970s, several proposals for residential development precipitated the effort to protect the park. Anecdotal information (personal accounts, newspaper articles, meeting notes) confirms the original park purpose, but no formal written agreements exist, creating some debate today about the park's intended purpose.

### 3. Historic Sites

Several significant structures remain and several have been studied as a consequence of the construction of Interstate 80 and now Parley's

Trail. Dudler's Inn's foundation, wine cellar (Photo 22), and rock walls (Photo 23) are likely eligible for the National Register of Historic Places and have been documented with the State Historic Preservation Office (SHPO). The sandstone aqueduct arch from the Pleasant View canal is less likely to be eligible for the National Register and has also been documented with the SHPO (Photo 24).

There are numerous less visible pieces of evidence of the past in the park, including abandoned road and rail grades, railroad ties, building foundations (Photo 25), bridge pylons (Photo 26) and undoubtedly numerous archaeological sites. The route of one historic road is the current path in front the rock wall associated with Dudler's Inn. Remnants of the Sheep Road are found just north and west of the aqueduct. Many sections of these routes have been covered up or destroyed by highway construction over the years. The potential for study and interpretation of these features is remarkable. The site also has potential to be studied as a Historic American Landscape—a collection of buildings, roads, site features, and human-altered natural areas that tells a story of the place as a whole.

Another aspect of the historic landscape are remnant plantings from the days of early settlement. Fruit trees, bulbs and rows of vegetation are evidence of homestead areas, but may be questionable components of the natural system here.

### 4. Interpretation

Canyon Rim Citizens Association and the Sons of the Utah Pioneers placed five bronze and stone interpretive monuments in the park as a sesquicentennial project. They have also sponsored the publications of two histories of the park and hold archives and photos about the park. There is certainly potential for more interpretation on the ground and in other media.

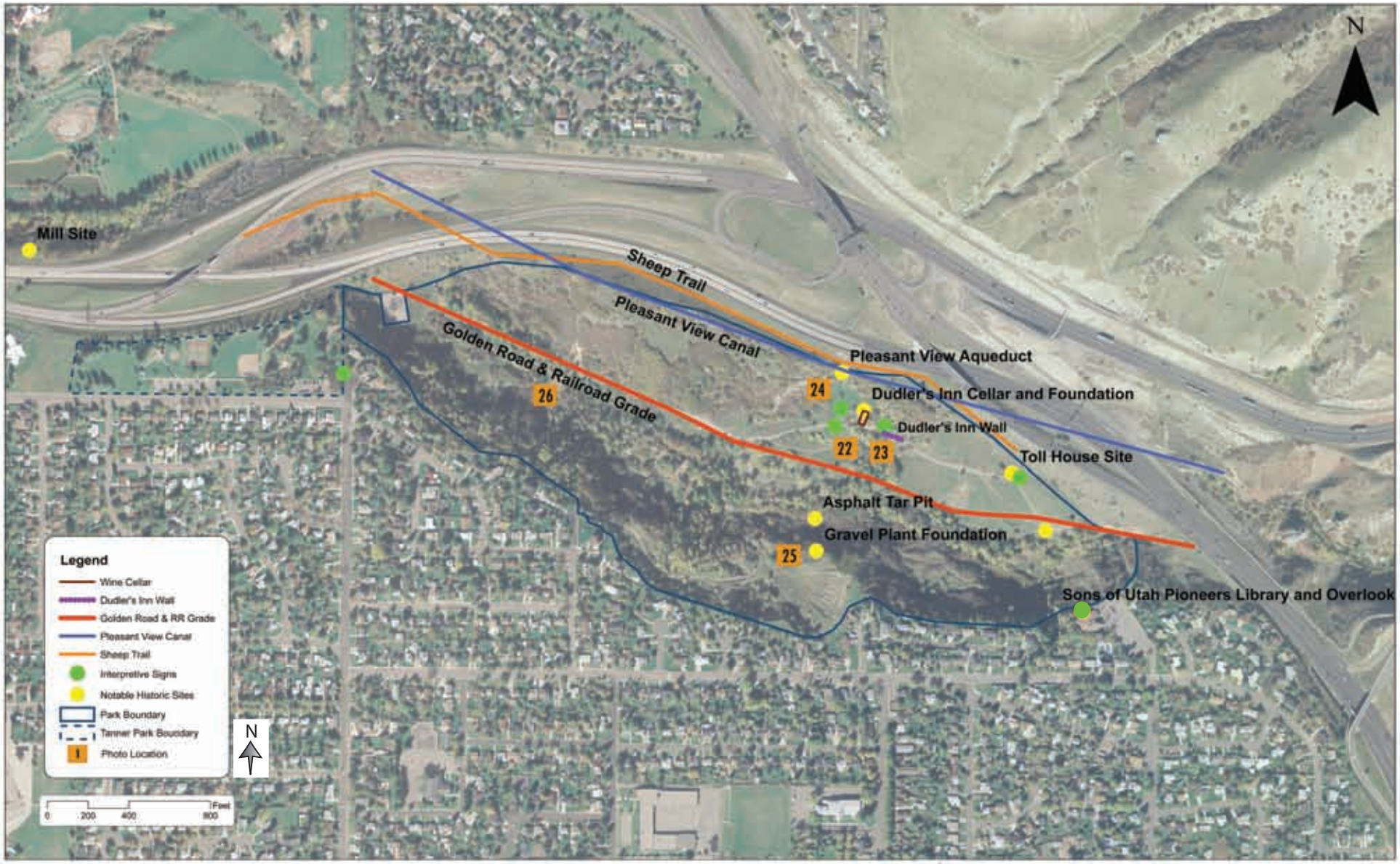
Photo 22: Dudler's Inn cellar and foundation.

Photo 23: Rock wall lining the historic road.

Photo 24: Sandstone aqueduct and interpretive monument.

Photo 25: Remnant foundation from gravel and concrete operations.

Photo 26: Historic era bridge pylons.




# Map 7: Cultural Resources

EDAW | AECOM MGB+A The Grassli Group PSOMAS

Note: The routes of the trails and aqueduct are estimates and have been covered by road construction in many locations.

## K. Visitor Experience

### 1. Access

Visitors enter Parley's Historic Nature Park from several points, as shown on Map 8. The primary entry is on the main entry road, after parking at Tanner Park at approximately 2700 east Heritage Way. There is another major access at 2870 East, where limited on-street parking is used. Neighbors use a pedestrian entry on Lorien Court, but the asphalt turn-around leading to it is often blocked by parked cars, despite a public access easement. Another de-facto entry is from the Sons of the Utah Pioneers parking lot, where a steep, eroding closed trail is often still used by tubers. Parley's Trail currently enters the park via a pedestrian bridge over I-215 at the east end and has a trailhead parking area on the east side of this bridge. A new entry point will be created by the Parley's Trail at Tanner Park. Access for all abilities does not exist, as existing trails are steeper and less stable than ADA standards require. However, Parley's Trail will provide a safer, paved option, but includes steep grades that may eliminate some users.

Access is currently a critical issue and failing point of the park. Users have exceeded the capacity of the parking lot and on-street parking. Car break-ins are frequently reported at the Tanner Park lot. The primary entry regulates dogs to on-leash, so many visitors frequently use the other entry points to avoid that rule (Photo 27 on p.36). Neighbors complain about noise, traffic, compromised privacy, wandering or threatening dogs, losing their street parking and other problems commonly encountered when living adjacent to a park. The entry trails suffer from erosion and user-created shortcuts. The main entry trail is icy in winter and many users feel the on-leash policy makes the situation more dangers as excited dogs could easily pull owners and others into a slide down the steep slope (Photo 28).

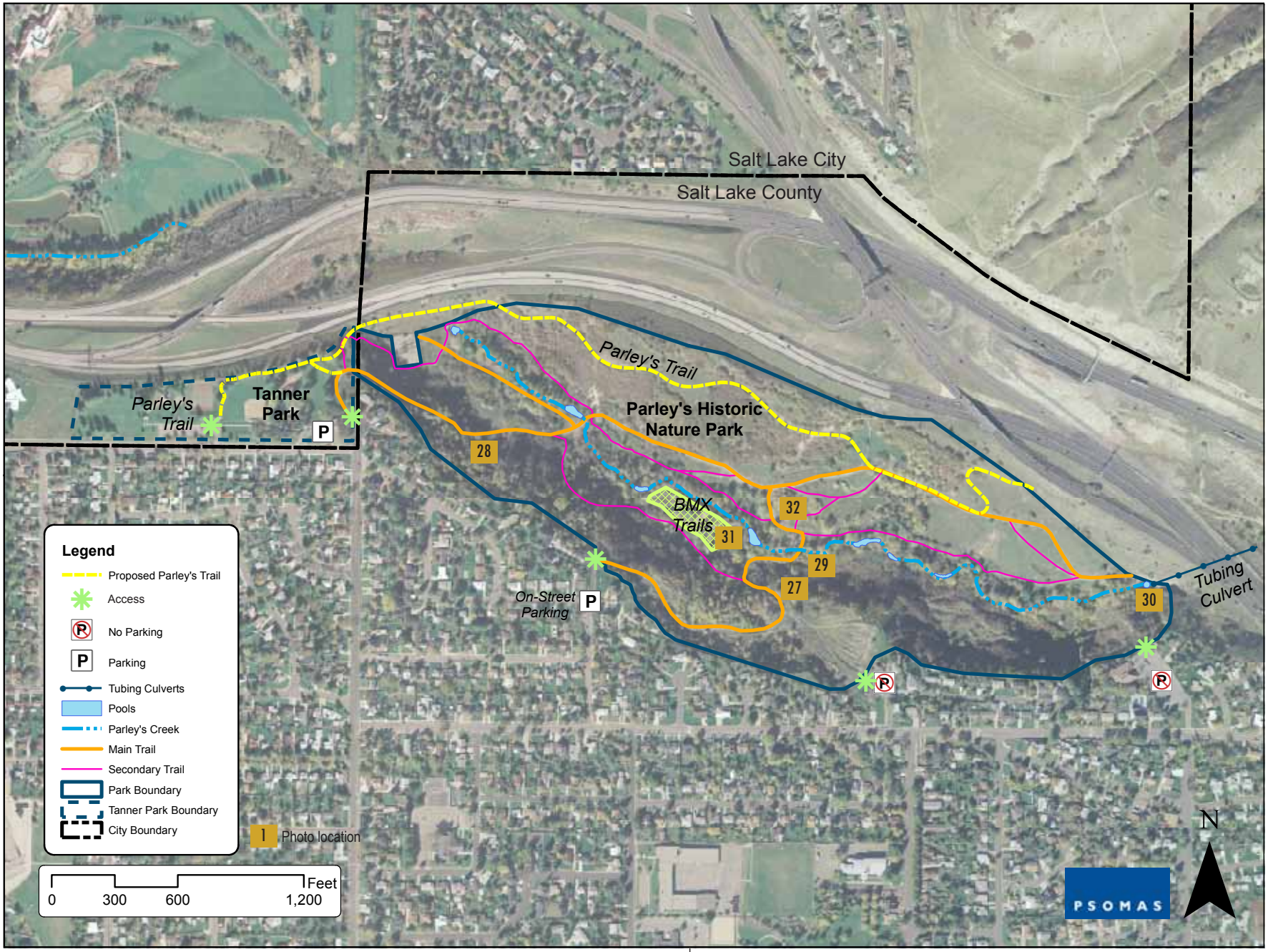
The safety of any park relies on responsible user behavior and "eyes on the park" to self-police. The park is safer, cleaner and busier than ever due to both its popularity and committed volunteers. This further promotes multiple-use recreation, year-round and at all hours of the day. Still, some places in the park witness partying, resource destruction, vandalism and graffiti, homeless camps and other undesirable uses.

### 2. Amenities

While many people enjoy the primitive, natural character of the park, a number of features enhance the experience, many built by volunteers. Parking, restrooms and trash collection are provided by Salt Lake County at Tanner Park at the entry. The primary entry road into the park is a service vehicle access road as well as a trail. Numerous trails (official and user-created) provide access to nearly every corner of the park. Volunteers have made efforts to limit access to user-created trails and control erosion caused by them. Several signs posted at the entry and in the park outline regulations. Two bridges have been constructed over the creek and several boardwalks bridge wetlands (Photo 29). Several access points into the creek have been hardened with erosion mats and erosion control rock walls. Dog "poop pipes" and bag dispensers have been erected by Millcreek FIDOS. Several benches and plaques commemorate the park and local history. The BMX course is a volunteer-constructed and maintained feature. While these improvements are minimal, they need to be maintained and managed for proper use.

### 3. Multiple-use Recreation

Salt Lake City Parks intends for PHNP to provide multiple-use recreation to as broad an audience as possible. In addition to the prevalent off-leash dog walking and BMX activity, the park is open to anyone for walking, biking, picnicking, fishing, free-play and passive recreation. Some of the other activities found in the park are historic enactments, paintball, and "shooting the tube" on the creek. Not all of these activities are approved by the city, and some are dangerous for both users and the park resources. Shooting the tube puts others recreating in that pool at risk. The outfall of Parley's Creek is also a dangerous spot where people and dogs can get swept into the culvert below.




# Map 8: Visitor Experience

Photo 27: Alternate access point into the park from the neighborhood.

Photo 28: The park access trail is often icy and dangerous.

Photo 29: Several bridges and board-walks allow safe crossing of the stream and wet areas.

Photo 30: Off-leash dog recreation in Parley's Creek.

### 4. Off-leash dog Recreation

With the emergence of dog-walking as a very popular recreational activity, off-leash dog walking has become an officially designated use in the park. There is a strong desire on the part of this user group to maintain this privilege and a willingness to volunteer on restoration and improvements to ensure it continues.

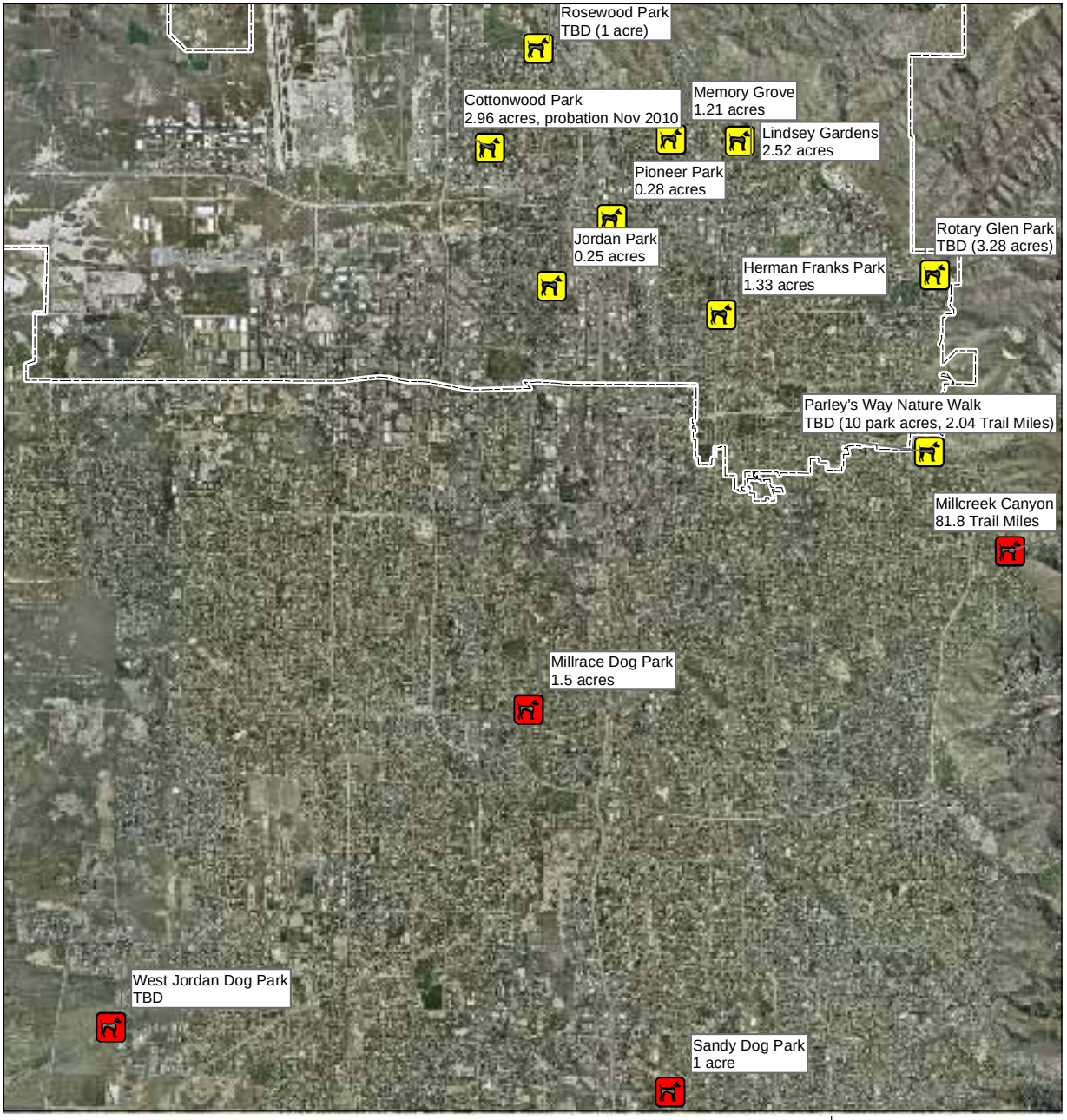
Dog walkers point out that there are few places in the county to let their dogs off-leash and the tremendous benefits to both humans and dogs and as a family recreation activity (Photo 30). Many dog-walkers utilize Millcreek Canyon every-other day and often use PHNP on opposite days. The construction of Parley's Trail has many dog walkers very concerned about how this will limit their use and potentially pose a hazard and conflict between trail users and dogs.

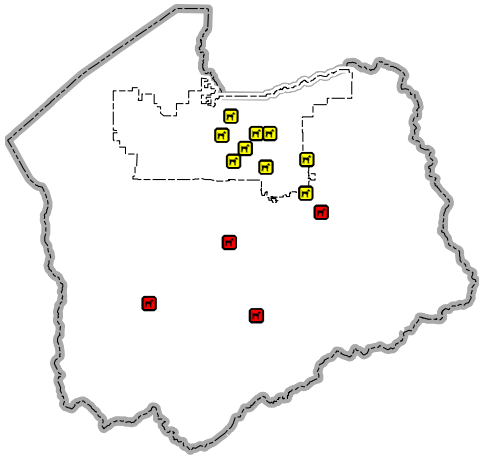
Millcreek FIDOS helped establish the off-leash policy in the park and is also the officially-designated steward for the park. It has a stewardship agreement with the City to assist with education and park maintenance, which it has fulfilled to date by leading many volunteer cleanup and construction projects in the park, including trail restoration, trash pick-up, boardwalk construction, weed-pulls and other activities. FIDOS have set some of their own goals for projects, including the donation of several park benches.

When Salt Lake City Council approved an off-leash area here, through the Off-Leash ordinance, it set a number of conditions, including (but not limited to):

- One-year trial period with certain obligations on the part of Millcreek FIDOS as the stewardship partner.
- Completing a management plan for the park to guide use
- Allowing temporary closures of sensitive areas to protect habitat
- Sponsor (FIDOS) willing to adopt the park to keep it free of litter and feces

The trial period, sponsor requirements and several other requirements have been met and approved by the city, while many others are still in process. While many off-leash dog users feel they "won" the privilege to use the park because the ordinance was passed and the trial period completed, other conditions are still unfulfilled. The management plan is still underway, temporary closures have never been executed (pending recommendations from the management plan) and several other recommended actions have not been implemented. Many FIDOS



## Off Leash Dog Sites Within Salt Lake County

Salt Lake City has approximately 23 acres of Off Leash Sites and 2.04 miles of off leash trail proposed in Parley's Historic Nature Park

Within Salt Lake County Off Leash Sites total 2.5 acres of Parks and 81.8 linear miles of trail in Millcreek Canyon

N

Salt Lake City Off Leash Dog Parks

County Off Leash Dog Parks

Salt Lake City Boundary

County Boundary

0 1.25 2.5 5 Miles

Update Sept 2010

# Map 9: Off-Leash Dog Sites in Salt Lake County

members feel conflicted that their stewardship efforts have been put on hold during this management plan.

This use is controversial because in some cases, it restricts or reduces the experience for other uses in the park. Many prior users now go elsewhere for wildlife watching, nature education, solitude and outings with children. Some dog walkers avoid the park because they feel it is has become too crowded or worry they will have difficulty parking and getting to the park. While most dog walkers are responsible, some of the problems pointed out are a lack of understanding on the boundary, little enforcement of the leash policy in on-leash areas, violators of the two dog limit (often professional dog-walking services), and leaving dog waste behind.

### 5. Nature appreciation

While this area was originally established and dedicated as Parley's Historic Nature Park, these two primary purposes have faded to the background today (Photo 31). Many people have used the park for bird-watching, fishing and nature education and some continue to do so today, but most of these users point out that these qualities have been degraded. The riparian system supports fishing, migratory birds and small mammals, as well as a expansive upland habitat adjacent. However, the quality of both has been impacted by continuous use and development. Many people commented this is disappointing, disconcerting and not in the spirit of the park's creation.

There is an inherent conflict between urbanized areas and wildlife. Urban open spaces play an important role in their regional ecosystems and urban ecology, but often become degraded to support less diverse, more urban-adapted species. Some expectations for sanctuary for both wildlife and humans are achievable, but will require compromise. When first established as a park, several ideas to highlight and better appreciate nature were suggested, including self-guided nature trails, a perimeter jogging trail, an accessible trail, and a small amphitheater circle for interpretive programs or classes. Enhanced wetlands and ponds, improved wildlife habitat, restored vegetation and stabilizing slopes were proposed. It was envisioned that the Utah Museum of Natural History, Hogle Zoo and Tracy Aviary could provide interpretive programs on site. These ideas were never achieved nor did they attract city funding. PHNP could offer some measure of this, and stakeholders of all types support a balance between protecting nature and human enjoyment. Interested parties did help maintain and improve the park in the early years, but efforts waned as off-leash dog use increased.

Photo 31: Several benches in the park for quiet appreciation of nature.

Photo 32: Replacement rock wall near Dudler's Inn historic site.

### 6. Historic Preservation

As another one of the original purposes of the park, historic preservation has succeeded to some degree, but has lost its original force. Much has been achieved just by virtue of protecting such a large, intact area of historic importance. As described in *Section C: Cultural Resources*, historic sites, landscapes, trails and routes abound in this park. Unobstructed views of the hollow as pioneers once saw it and remnants of their many activities can still be appreciated today. However, many sites are in need of repair and restoration, or at a minimum, protection to prevent further damage. The features that are

visible are under-appreciated today and are eroding faster than they would if the park was used less. Preservation and interpretation efforts are essentially absent from the park, but interest exists to do something about this. The historic rock wall and trees above it were removed and replaced during the construction of Parley's Trail as they were severely compromised (Photo 32).

### 7. BMX

The BMX course in PHNP is an independent, user-created project and has become one of the most famous "underground" locations in the BMX world. The quality of the course and caliber of the riders here has attracted the attention of film-makers, competitors and park users, too. There is little objection by most park users to the course itself or to the people who use it and many park users enjoy being spectators at the park. There are no sanctioned alternative courses in the city and just one in the county. The course and BMX use have never been authorized, but were recommended for consideration in this plan when the City Council adopted the off-leash area. The course features and routes are shown on Map 10. It remains to be seen how the City will mitigate its potential liability and what management will be required.

The course has expanded over the years to approximately 1 acre of mostly barren, compacted dirt with some overstory trees and weeds. Most of the ecological damage was done when vegetation was originally removed, but the course has expanded over the years (Photo 33). The primary environmental impacts are 1. location in the sensitive riparian zone, 2. location on the brink of a severely eroding creek bank (along the "Bodega" loop, (Photo 34) 3. the alteration of this landscape cuts seeps and springs from their natural course down to the riparian corridor, and 4. its creators have built diversion channels from the springs to bring water onto the course, disrupting natural drainage flows and vegetation. There is concern over the course becoming a problem area for invasive weeds and over using downed wood for fences that would otherwise serve habitat needs.

Photo 33: User built and maintained BMX course.

Photo 34: Dangerous eroding creek bank.


**Main Line:** Oldest and most used jump line.
**Thunder:** Larger more advanced jumps.
**Chug:** Technical line with large jumps mixed in.
**Thug:** Convergence of Thunder and Chug, in the "lower bowl"
**Bodega:** Accessible off of Main Line only, in the "lower bowl"
**Pumptrack:** All ages, low risk, can be ridden both directions

## Map 10: BMX Park

BMX users requested the city's permission to continue use of this area and have expressed their needs. First, is a steady source of water, up to 50 gallons on a summer day, to keep jumps packed and dust free. Second, bicycle access into the jumps area. Third, a partnership to help with vegetation restoration, as their volunteers could help seed and water the areas between jumps, which actually helps the course. Fourth, a small lock box to store tools.

## 8. Parley's Trail

Parley's Trail was constructed through the park in 2010 (Photo 35-36). It is the culmination of a decade of planning and fundraising. The multi-use, paved trail connects the Bonneville Shoreline Trail and the Jordan River Trail. It is a commuter trail, recreational trail, alternative access to the park, and emergency vehicle access road. The trail begins at the west parking lot of Tanner's Park and connects spur into the east end of the park, and over I-215 on a pedestrian bridge to a trailhead, a major park entrance. The trail is being designed and constructed by Salt Lake County. The permitted uses, speed limits and rules promote the overall trail goals, even through this park. Many of the trail conflict concerns (mixing dogs, bikes and pedestrians) were discussed and considered for this Management Plan. This plans should adapt to changing use patterns as the trail becomes better known.

Photo 35: Parley's Trail as it passes by the historic sites.

Photo 36: Parley's Trail and restoration area from its construction, next to I-80.

Trail construction required significant earth-moving and construction of retaining walls, in order to align the trail on a relatively steep slope. As a result, there are only a few places where the trail is easily accessed or crossed. Also, there are several acres of land cut or filled during construction, which are now undergoing restoration. These areas have erosion control blankets, seeding and in some locations, new shrubs plantings (Photos 37-38). As these areas are dry, sunny grasslands and uplands, restoration will likely be relatively slow and challenging. Any use or impact on these areas can seriously compromise the success of restoration, extend the restoration period, and introduce noxious weeds. The trail design team requested taking all efforts necessary to keep users off of the restoration areas and adjacent land.

Photo 37: Erosion control blanket.

Photo 38: Footprints and paw prints on a newly seeded erosion control blanket.

## 9. Trail System

Quality trail systems are planned and designed to be sustainable and to enhance the visitor experience of a place. Destinations, resting points, sights and sounds and encounters with other users are all important considerations. Trail construction that is safe, durable and protects the natural resources being enjoyed is also critical.

Unplanned paths that were not created or approved by park managers are often called "user-created trails" or "social trails." User-created trails are a significant problem in Parley's Historic Nature Park. These unofficial trails often start as a small path cut through vegetation by wildlife, pets or people. They may be unnoticeable at first, but become more prominent as people recognize and use them, which increase their visibility, encouraging more use. They are often shortcuts, but sometimes they are the opposite, leading people off-course from desired destinations. They are often found along trail switchbacks, stream banks, and around high use areas, such as picnic areas and trail intersections.

User-created trails are one of the biggest challenges in natural resource management as they lead to many other, more difficult problems:

- Degrading native vegetation and damaging sensitive plants due to trampling
- Disrupting important habitat and disturb wildlife
- Fragmenting vegetation and associated habitat
- Facilitating the spread of invasive species and provide opportunities for weeds to become established
- Compacting soil thereby increasing erosion
- Accelerating erosion and compromise water quality
- Confusing visitors and encouraging unintentional use
- Encouraging dangerous or illegal uses
- Providing access to areas not intended for use
- Encouraging use or overuse of a sensitive area
- Providing an unsafe experience
- Unable to handle visitor volume

User-created trails are a good indicator of where people wish to go and where a trail network should be placed, but not all user-created trails are worthy candidates for established trails. Travel through Parley's Historic Nature Park primarily occurs on well-established trails, which generally follow historic roads through the site, including the dugway road / entry trail and the main east-west trail that follows the historic road and railway. Over the last few decades other major trails have been created by continued use, including the south side trail and the trail adjacent to the creek on the north side. In addition, there are countless user-created trails or "social" trails that have become established or are used in varying degrees (Map 11). Many of these trails are travelled

Photo 39: Dangerous user-created trail eroding into Parley's Creek.

Photo 40: User-created trails cutting down a slope, despite barriers.

Photo 41: Meandering and braided trails alongside main trail.

Photo 42: Trampled, eroding trail-side vegetation leading to trail widening.


This map exhibits the most obvious and largest user-created trails in the park, totalling 9.14 miles. There are countless additional paths (not shown), which may be characterized more as braids, meanders and offshoots. The widening of major trails due to footfall just off the trail surface is an also widespread. Areas of trampling and erosion in the riparian corridor are included in Map 6: Riparian Corridor.

# Map 11: User-Created Trails

infrequently, are duplicates of other trails, are "braided trails" where the preferred path is unclear, or are used primarily by meandering people and dogs. (Photos 39-44) There are also countless short and dead-end user-created trails leading to water and into dense vegetation. There are also many areas in the park with widespread trampling, where social trails have merged together into large areas of bare soil. (Photos 45-46)

User-created trails in PHNP are one of the primary management challenges. Their proliferation is unsustainable, causing a decline in the park's native vegetation, wildlife and water quality. They have also damaged the visitor experience as they are encouraging careless behavior that has compromised the park's unique qualities. Repeated use of user-created trails continues to exacerbate these problems. As vegetation is trampled and replaced by dirt, erosion scour and weeds, the park's natural ability to recover is weakened. Human intervention is required to help it recover and restore the natural balance. This includes pulling weeds, regrading erosion rills, replanting and redirecting use. A proactive approach is more sustainable and affordable.

Photo 43: Eroded area highly susceptible to invasive myrtle spurge and other weeds.

Photo 44: Poor trail design and drainage creates muddy patches and causes users to step off-trail, exacerbating the problem.

Photo 45: Meandering social trails (highlighted in yellow) alongside the main trail, which will eventually lead to widespread vegetation loss, as shown in Photo 46.

Photo 46: Wide spread vegetation loss. Trampled vegetation, compacted soil and erosion have stopped native plants from reseeding and allowed weeds to establish, as shown in Photo 43.

# Appendix

# L. Issues Identification - Public Input

This is a summary of comments made by the public during the Issues Identification phase of the project. The goal of this step was to solicit public feedback on the problems and issues in the park and possible solutions they saw. This step was also used to identify the information and people available to help define the baseline conditions.

## Participation

53 people participated in on-site interviews November 8, 2008
28 people signed in at interviews on December 11, 2008 (several repeats from the on-site interviews)
25 participants in additional personal or group interviews
83 written comments submitted via e-mail or letter (as of 2/10/09)
Discussions with stakeholders, experts and other interested parties

## History of Park

A very strong sense of stewardship for the park is present amongst different user and interest groups. People who remember the hollow as it was before becoming a heavily-used park have concerns that are often opposed to those who have come to love the park as regular users today. Both groups feel they have contributed much to its success and fear changing what they like best about it. There are strong feelings on the part of some user groups that they have primary rights to the park because they use it, care for it, and have cleaned it up. Others feel their wishes for a nature park should be upheld because they helped establish the park. However, there is a general lack of understanding that there are many other factors that have shaped the park and its evolution, including policies, agencies who control resources or facilities in the park, and interest groups looking out for its general welfare.

## Planning and Policy

Many people were thankful a management plan was being completed, after years without one. They also hoped the process would be more factual and less political or emotional than previous decisions were. Many worried about the outcome and that the dog issue was being reviewed yet another time when it appeared the issue should be a closed case now. There was some concern about the makeup and fairness of the steering committee as many people did not understand the committee was not a voting body or the wide diversity of stakeholders to accommodate. The bigger picture problem of a shortage of off-leash parks in the county was identified as a partial cause for the challenges facing this park, and many suggestions were made for new locations. There was a general sense that the park has been ignored, but that they didn't want to change or overdevelop the park too much.

There was a general sense among park users that people "self-policed" the park and generally took responsibility for their actions. Many people pointed out there is a minority of users who don't follow the rules (especially regarding the on-leash entry road), pick up their waste, or obey the two dog limit. People said any rule is hard to enforce here because of lack of enforcement officers and the size of the park. People recommended making and posting rules that are simple and easy to enforce. Many comments were made about the on-leash rule on the entry road – questioning its effectiveness, safety, and the numbers of people who don't follow it. People were generally open to new management tools, like fees, licenses, fines, if it ensured continued access.

## Natural Resources

There are strong difference of opinion the condition of natural resources in the park and the direction in which it is heading. People with long histories with the park have noticed changes in biodiversity, due to numerous construction projects, the ecological isolation of the park from development and increasing park use. Many people witness wildlife they see as evidence of the health of the landscape, but often aren't able to differentiate between the more sensitive and rare species that are indicators of a biodiversity and more common, urban-adapted species. There is strong disagreement amongst users about how heavily

dogs impact the wildlife and vegetation. Many people are aware of invasive plants and the threats they pose, and have helped fend these off. Fewer people are aware of the diversity of landscapes here – from riparian to oak scrub—and the number of different plants that compose these landscapes and how this diversity has been degraded. There is a general concern for Parley's Creek, in keeping its banks from eroding, protecting water quality and aquatic ecology and allowing it to take a natural course. Many people recognize that the vegetation on the stream banks has degraded and some feel that some restoration work, possibly select closures, is needed.

### Cultural resources

Many people expressed that they cared about protecting the historic features in the park, but only a few people were well-versed in the full history of the park and the diversity of historic features that could be found here – visible and invisible. Those interested in this component admitted this has long been neglected.

### Visitor Experience

Most people felt this place was unique and irreplaceable – for its open space qualities as well as the uses that are permitted few other places in the city. There was significant division as to whether or not off-leash dogs added to or subtracted from the experience of the park, and division over whether dog owners were being responsible for their dog's impacts (waste, behavior, impacts on vegetation). One of the main observations is how much busier the park is since off-leash dog use became popular, improving safety and creating a greater sense of community and stewardship around the park. Some park users, including some dog-walkers, felt the park was less safe now with the presence of some of uncontrolled dogs. BMX use was generally supported, but other uses, including "shooting the tube" were questioned. Many people who previously visited the park to watch wildlife or for adventure/free play felt the park had lost value to them and their experience compromised by other users and resource degradation. People had suggestions for basic amenities to improve park comfort, but did not wish to see significant development of the park. Many people have invested significant volunteer time into maintaining the park are interested in helping with any clean-up and restoration projects proposed by this plan.

The Parley's Trail was cause for many indirect comments, as the new proposed alignment coincided with the input period for this Management Plan. A majority of people responding were opposed to the new trail location because the original planned alignment had fewer overall impacts on park resources and use patterns. As further design work proved that alignment not feasible, many people questioned the purpose of the trail, worried about how it would impact existing use patterns in the park, and how it would harm cultural and natural resources. The primary concern is for conflict between dogs and bikes and how those uses could be segregated. Another concern was for how the trail would be used, considering the difficulty of terrain and possible conflicts.

An overarching question raised was the capacity of the park - is there a upper limit to the number of users? Many people stated that the quality of users was more important than the quantity. Responsible use could be managed and tolerated, while irresponsible behavior quickly spoiled the experience for everyone.

# M. Comprehensive Use Plan Alternatives

## 1. Decision Making

Eight alternatives were proposed to meet varying interests and needs, and were refined into one preferred option. To evaluate which alternative is the most responsible and responsive course of action, several questions should be considered:

1. How does it meet the plan goals?
2. How does it improve both the visitor experience and resource protection?
3. Is it sustainable long-term (environmentally, socially and economically)?

The *Park Goal*s were generally agreed upon. It was more difficult to prioritize them. The public was not in agreement on park priorities due to competing interests for a limited resources. Salt Lake City must lead the way setting these priorities to effectively create and implement a plan. The solution must balance resource protection, the visitor experience and appropriate access. There will be trade-offs. The following challenges were considered:

### Consideration 1: Sustainable Resource Protection

Parley's Historic Nature Park was originally acquired and developed with the intent of preserving the resources within it and creating a natural open space area. In the thirty years since its establishment, it has been managed in a hands-off manner, allowing certain use patterns and stewardship roles to emerge that do not fully meet today's standards for open space protection. The park's natural resources have degraded in recent years, and the pace of degradation will accelerate with the current increases in use. It is past a point that can be sustained without intervention.

Many ecosystem protection measures are necessary and critical. However, full restoration of the park to a pristine conditions is unlikely and there is a point of diminishing returns. Restoration and refuge areas for critical species is important, but there is a point at which conservation efforts will likely outpace the gains. On the other hand, the minimalist management of the past will escalate degradation of park ecology and biodiversity to a point where restoration will be very difficult.

A range resource protection strategies and priorities are possible. Some of the resource protection strategies serve an additional purpose of supporting a better visitor experience for those wanting a nature park experience. Some natural areas will become lower priorities for protection in order to provide places for the recreation desired.

### Consideration 2: Managing Competing Uses

Unrestricted recreation access is strongly valued here and in many other open spaces and parks. However, this cannot always be accommodated in light of protecting resources and ensuring a positive visitor experience. As the park has been cleaned up, (primarily through volunteer efforts), and become more popular, use has increased, as has user conflict. The second challenge of this plan is how to allocate recreation and use privileges.

The primary conflict revolves around what degree of off-leash dog use is appropriate. Many other users have indicated they no longer use the park because this use has dominated. There is also concern for conflict along Parley's Trail.

The essential question is what level of multiple-use recreation is desired and what lengths should be taken to ensure this.

### Consideration 3:
### Setting New Precedents while Acknowledging Prior Agreements

This is the City's first management plan for an open space / nature park and is setting some new precedents. The newly formed Open Space Lands Program anticipates setting new precedents for lands they acquire and manage in order to protect the values for which the land was acquired. Thus, every decision in this plan could be seen as precedent for other open space areas and off-leash areas.

Setting new precedent is particularly difficult because of the public process establishing the off-leash area in this park. When Salt Lake City Council approved an off-leash area here, through the Off-Leash ordinance, it set a number of conditions for approval. The most significant was completion of this management plan. Some of the conditions have been met, while some have not yet been completed, but the city has continued to allow and authorize off-leash use.

Many off-leash users perceive this management plan and its recommendations as a reversal of previous agreements. Conversely, many people who support resource protection and desire areas for dog-free recreation feel this plan is finally fulfilling the promises of the Council's call for a management plan.

### Consideration 4: Enforcement and Implementation

Enforcement and implementation of the adopted plan is the primary concern of the project team, stakeholders and public. Who will ensure that people respect the rules? Who will take responsibility for restoration and improvement? These questions are foremost in the minds of concerned citizens.

As the park is located in unincorporated Salt Lake County, but owned by Salt Lake City, the entities have several agreements to jointly manage the park and its resources. The County provides law enforcement in and around the park, as well as animal control services and flood control on Parley's Creek. The City manages the park from a recreation standpoint. Enforcement and expectations have typically been low, but users are beginning to expect more to make park use more sustainable. Many of the proposed solutions require heightened County participation – parking enforcement, animal control, alternate recreation sites, and Parley's Trail management.

Partnerships are an essential part of the solution. Salt Lake City must prioritize efforts to involve other agencies, entities, and the public in park stewardship.

## 2. Planning Alternatives

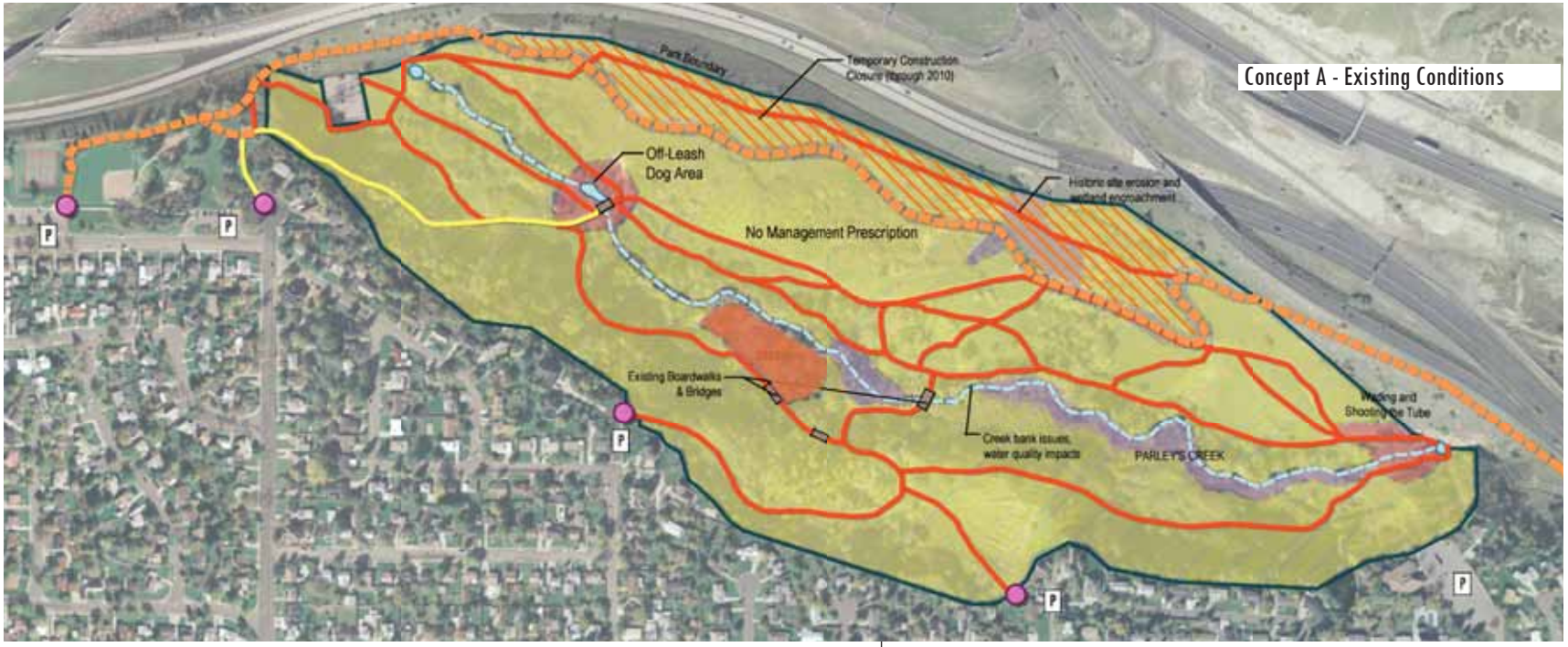
A range of alternatives was developed to meet varying goals of improving the visitor experience and resource protection. The alternatives reflected a range of resource protection levels, which were shaped by many local, state and federal policies that must be upheld. Then, alternatives were adjusted to accommodate the range of users and visitor experiences desired. Many management strategies for improving the visitor experience improvements could be applied to any one of these alternatives. A comparison of alternatives is found in the *Appendix.*

Eight alternatives were developed and presented to the stakeholder Advisory Committee. After their discussion and review, a preferred alternative was selected for its balance of uses, ability to protect critical resources, and ease of implementation. This plan was presented to the public for input then underwent extensive review and discussion by the Mayor and City Council. After further discussion and compromise, a new concept was developed, which was then adopted in this plan.

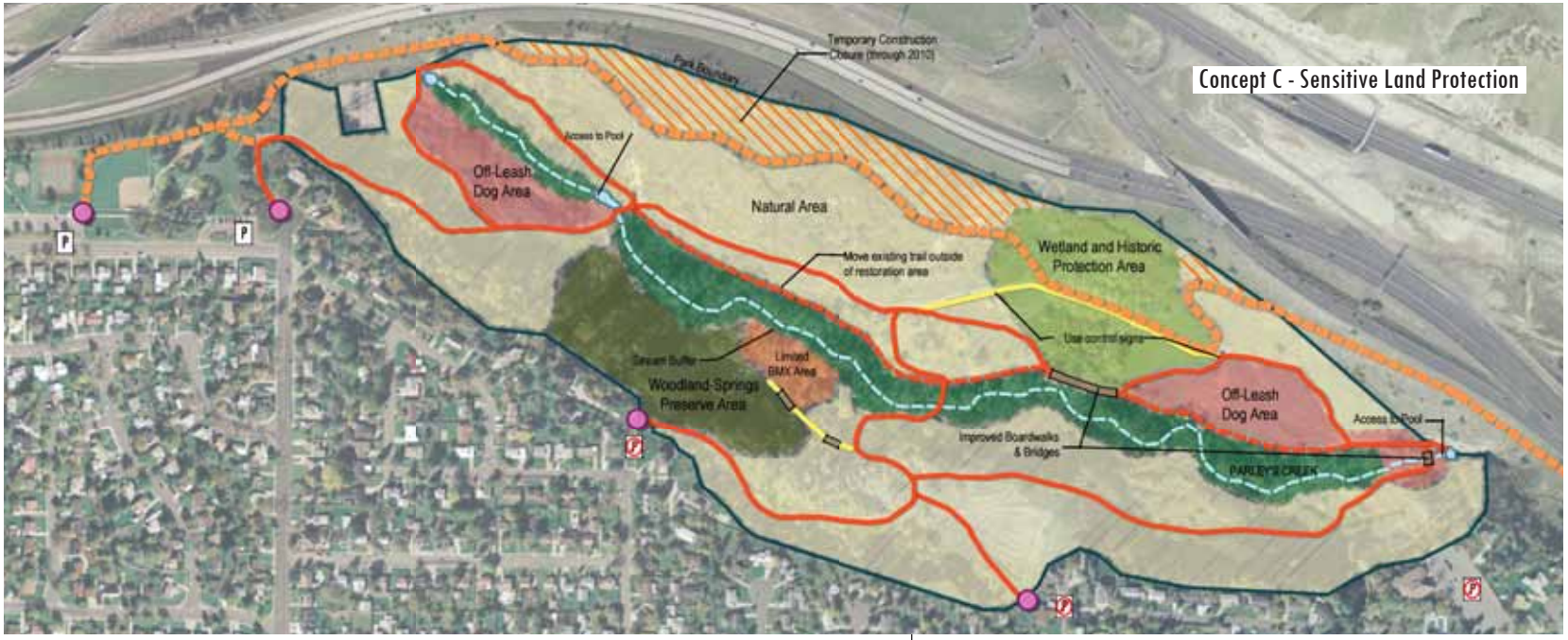

**All alternatives (except Existing Conditions) include the following management strategies:**

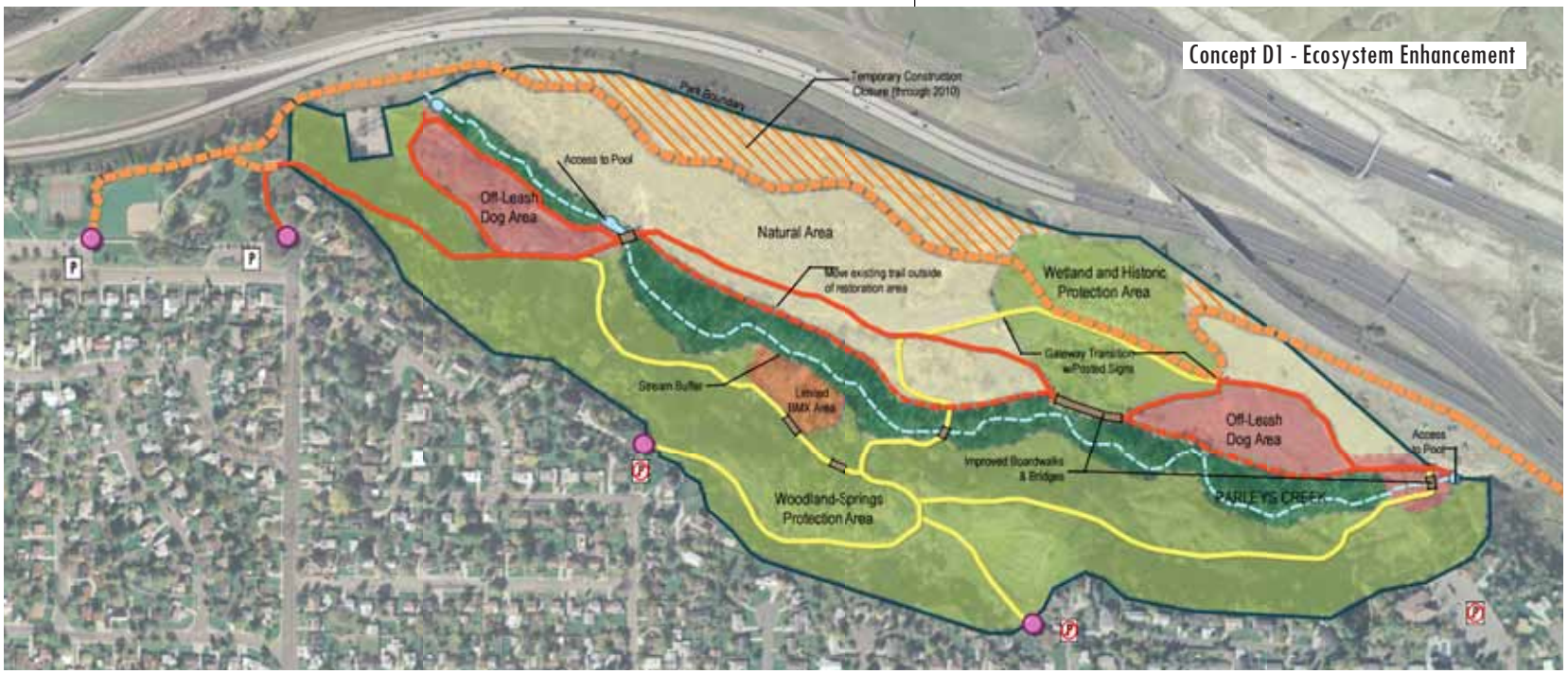
- Bring all park improvements into compliance with Riparian Corridor Ordinance.
- Increased enforcement of off-leash regulations, parking regulations, and illegal activities such as camps, partying and graffiti.
- Eliminate user-created trails.
- Designate BMX area boundaries and buffer from the riparian corridor.
- Adopt neighborhood parking restrictions to minimize disturbances and traffic.
- Add flood control debris basin, designated cleanout points (east culvert, bridge, west culvert), and safety improvements to west culvert inlet.
- Restore eroding culverts outlets and drainages and address water quality of discharged water.
- Control invasive plant and animal species.
- Complete Parley's Trail with uses determined by City, County and PRATT, including on-leash requirement
- Launch trail etiquette campaign to encourage people and dogs to stay on trail and reduce user-created trails. Increase stewardship and education.
- Pro-actively identify and establish other off-leash recreation areas in City and County.

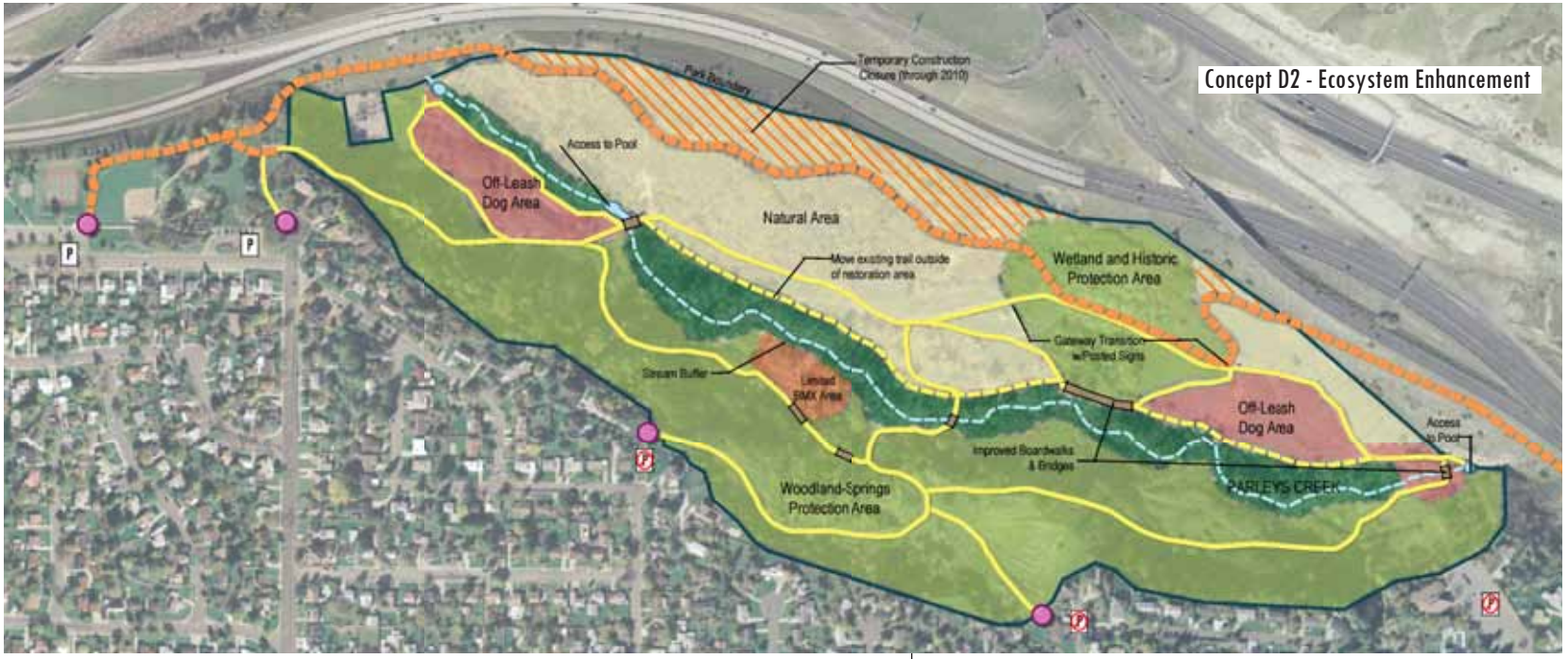
| | Goal | Design and Management Strategies *(for resource protection and visitor experience)* |
|---|---|---|
| **Concept A**<br>Existing Conditions | Maintain current recreation patterns. | All trails and areas open to off-leash dog use. Unlimited access to creek. BMX, Shooting the Tube use. New Parley's Trail. Mitigate resource degradation problems as they arise. Unlimited recreation use and few conflict controls. |
| **Concept B**<br>Riparian Corridor Restoration | Restore riparian corridor while maintaining current recreation patterns. | Riparian corridor closed for restoration and trails moved out of corridor to comply with Riparian Corridor Ordinance. Designated creek access points for people and dogs wading. Off-leash areas next to access points. BMX use continues, but buffered from creek. All trails off-leash, but use confined to trail itself in Natural Areas. New Parley's trail. Outside riparian corridor, mitigate resource degradation problems as they arise. Minimal recreation restrictions. |
| **Concept C**<br>Sensitive Land Preservation | Restore riparian corridor and sensitive lands. Maintain current recreation to greatest extent possible. | Riparian corridor, wetlands and springs closed for restoration and trails moved out of these areas. Designated creek access points for people and dogs wading. Designated off-leash areas. BMX use continues, but buffered from creek. Protection Area around historic sites and wetlands and Preserve Area around hillside springs. Trails off-leash in Natural Area and on-leash in Protection and Preserve Areas. Use confined to trail itself. New Parley's trail. |
| **Concept D1, D2, D3**<br>Ecosystem Enhancement | Reinstate nature park character to portions of park and support off-leash use in others. Improve the overall ecosystem to restore biodiversity. | Riparian corridor, wetlands and springs closed for restoration and trails moved out of these areas. Designated creek access points for people and dogs wading. Designated off-leash areas. BMX use continues, but buffered from creek. New Parley's trail. Protection Area around historic sites, wetlands, and hillside springs with on-leash use only permitted. Off-leash permitted only after sensitive areas are protected.<br>**Concept D1 -** Mixture of off-leash and on-leash trails.<br>**Concept D2 -** All trails on-leash.<br>**Concept D3 -** Mixture of off-leash, on-leash and no-dog trails. |
| **Concept E1 and E2**<br>Divided Park - Recreation and Preserve | Split park into nature preserve area and recreational area that allows off-leash dogs. Improve the overall ecosystem and restore biodiversity in preserve area. | Riparian corridor, wetlands and springs closed for restoration. Trails moved out of these areas. Designated creek access points for people and dogs wading with an adjacent designated off-leash areas. BMX use continues, but buffered from creek. Trail system on recreation side. Permanent closure of east end to create Preserve with no dogs and limited human access. New Parley's trail.<br>**Concept E1 -** Recreation trails off-leash.<br>**Concept E2 -** All trails on-leash. |
| **Concept F**<br>Biodiversity Preserve | Re-create park as a nature preserve focused on improving the ecosystem and biodiversity to maximum achievable in urban setting. | Permanent closure of majority of park to all non-essential use. Invest heavily in restoration. Eliminate current recreation and trail use from park. Allow trail use for stewardship and education only with no dogs allowed. |

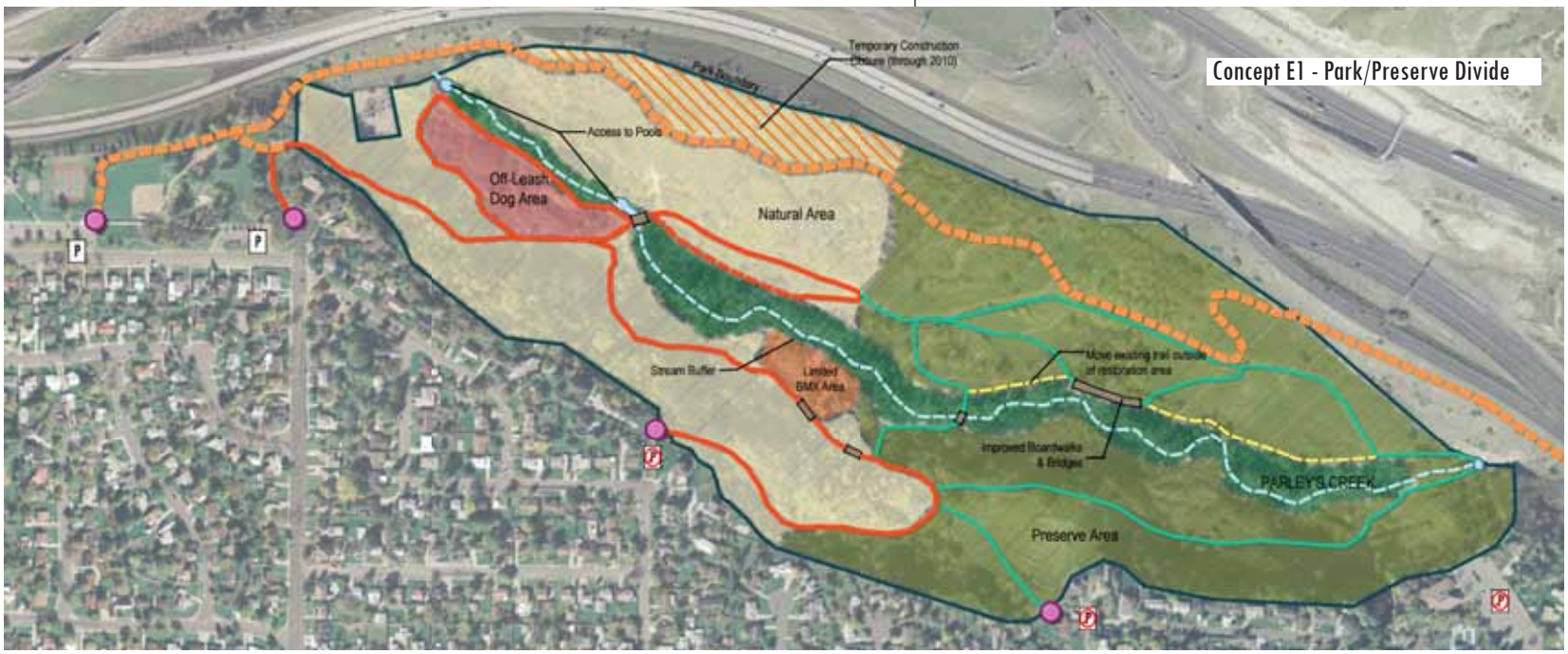

Concept A - Existing Conditions
Park Boundary
Temporary Construction Closure (through 2010)
Off-Leash Dog Area
No Management Prescription
Historic site erosion and wetland encroachment
Existing Boardwalks & Bridges
Creek bank issues, water quality impacts
PARLEY'S CREEK
Wading and Shooting Pipe Tube

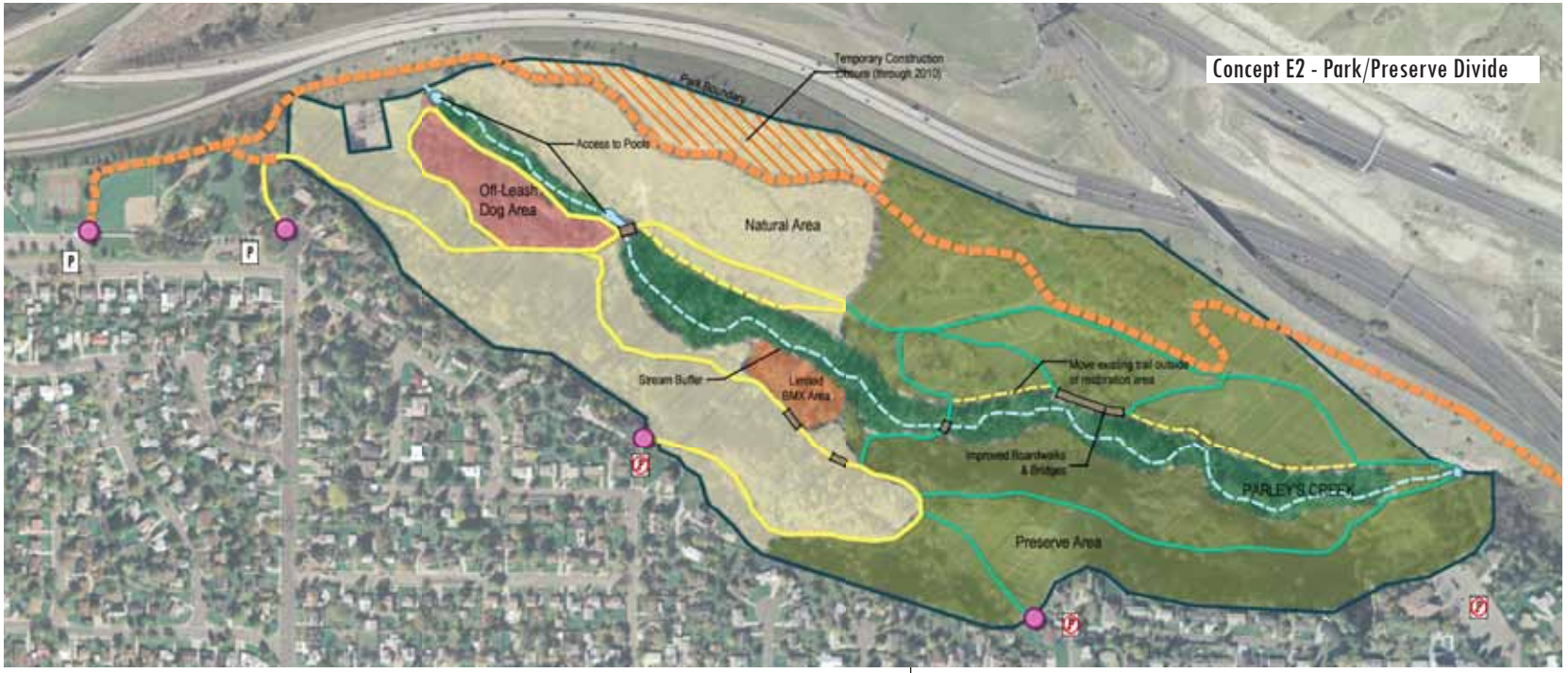

Concept B - Riparian Corridor Restoration
Park Boundary
Temporary Construction Closure (through 2010)
Access to Pool
Off-leash Dog Area
Natural Area
Riparian Corridor Restoration
Riparian Buffer
Limited BMX Area
Existing Boardwalks & Bridges
Move existing trail outside of restoration area
Off-leash Dog Area
Natural Area
PARLEY'S CREEK


Concept C - Sensitive Land Protection
Temporary Construction Closure (through 2010)
Park Boundary
Access to Pool
Off-Leash Dog Area
Natural Area
Wetland and Historic Protection Area
Move existing trail outside of restoration area
Use control signs
Stream Buffer
Limited BMX Area
Woodland-Springs Preserve Area
Off-Leash Dog Area
Access to Pool
Improved Boardwalks & Bridges
PARLEY'S CREEK
P


Concept D1 - Ecosystem Enhancement
Temporary Construction Closure (through 2010)
Park Boundary
Access to Pool
Off-Leash Dog Area
Natural Area
Wetland and Historic Protection Area
Move existing trail outside of restoration area
Gateway Transition w/Posted Signs
Stream Buffer
Limited BMX Area
Off-Leash Dog Area
Access to Pool
Improved Boardwalks & Bridges
PARLEY'S CREEK
Woodland-Springs Protection Area
P


Concept D2 - Ecosystem Enhancement
Temporary Construction Closure (through 2010)
Park Boundary
Access to Pool
Off-Leash Dog Area
Natural Area
Move existing trail outside of restoration area
Wetland and Historic Protection Area
Gateway Transition w/Posted Signs
Stream Buffer
Limited BMX Area
Off-Leash Dog Area
Access to Pool
Improved Boardwalks & Bridges
PARLEY'S CREEK
Woodland-Springs Protection Area
P
P


Concept E1 - Park/Preserve Divide
Temporary Construction Closure (through 2010)
Park Boundary
Access to Pools
Off-Leash Dog Area
Natural Area
Stream Buffer
Limited BMX Area
Move existing trail outside of restoration area
Improved Boardwalks & Bridges
PARLEY'S CREEK
Preserve Area
P
P


Concept E2 - Park/Preserve Divide
Temporary Construction Closure (through 2010)
Park Boundary
Access to Pools
Off-Leash Dog Area
Natural Area
Stream Buffer
Limited BMX Area
Move existing trail outside of restoration area
Improved Boardwalks & Bridges
PARLEY'S CREEK
Preserve Area


Concept F - Ecosystem Preserve
Park Boundary
Preserve Area
Move existing trail outside of restoration area
Improved Boardwalks & Bridges
Preserve Area

# N. Public Involvement and Input

## 1. Summary

This planning process relies on regular input and review from a Project Team, including consultants and city staff, an Advisory Committee of stakeholders, and public outreach efforts. A detailed list of input and outreach efforts is included on the following page.

An Advisory Committee of stakeholders was assembled to help the project team discuss, review, and better understand project issues. They were also the foundation for an informed discussion with the "constituents" they represent. They played an active role in providing information for the *Baseline Conditions Report* and an advisory role in preparing *Comprehensive Use Alternatives* and *Management Strategies*.

The first broad public input came through Issues Identification Interviews. These helped the project team define the project goals and the scope of what the *Baseline Conditions Report* should discuss. The next public input step was a two-day design workshop that included the Project Team, Advisory Committee, and public input sessions. The workshop began with the Advisory Committee reviewing the goals and resource analysis maps, then proposing ways to protect resources and create a better visitor experience. These ideas were integrated into refined goals and two conceptual maps redefining park use and management. The public was invited on park tour to learn more about the resources, followed by a question/answer session with the project team and Mayor Ralph Becker, followed by an open house to review the conceptual maps and goals. The workshop resulted in draft *Comprehensive Use Alternatives*, which were sent to the Advisory Committee for review and changes, then to the public through a variety of board and community presentations.

Upon review, the Advisory Committee and the public requested several new alternatives be drafted to reflect different viewpoints. Six alternatives were developed and again reviewed by the Advisory Committee and their stakeholders as well as the Open Space Lands Advisory Board. Two additional alternatives were created and then formal, written comments were sought from all.

*Public open house and Mayor's Forum held on April 3, 2009.*

Based on this input, the Project Team (consultant and city staff) began drafting proposed *Adaptive Management Strategies* to reflect the goals of the plan and help further refine the Comprehensive Use Plan. After four stakeholder meetings where to discuss appropriate and effective strategies, a draft *Adaptive Management Strategies* document was prepared. This was used, in combination with Advisory Committee input on the Alternatives to prepare and refine a recommended Preferred Alternative. This was presented to the public, along with the recommended *Adaptive Management Strategies*, at a public open house on March 18, 2010. These recommendations, along with the public input on them, were forwarded to Mayor Ralph Becker for his consideration in April, 2010 and will next be considered by the Salt Lake City Council before a final decision is made.

## 2. Timeline of Public Involvement

| *Topic* | *Format* | *Date* | *Attendance* |
|---|---|---|---|
| Baseline Conditions and Issues Identification | Public Interviews in PHNP | 11/8/08 | 53 interviews |
| | Public Interviews at Sugar House Park Garden Center | 12/10/08 | 28 attendees |
| | Neighborhood interview, organized by Rita Lund | 2/12/09 | 10 attendees |
| | Neighborhood interview, organized by Nancy von Allman | 1/28/09 | 13 attendees |
| | E-mails, letters, phone calls and stakeholder comments on report | through 03/09 | 83 e-mailed comments |
| | Stakeholder Meetings | 11/5/08<br>2/18/09 | stakeholder group |
| Comprehensive Use Plan | Charrette and site tour | 4/2/09 | 19 attendees |
| | Open house and Mayor's Forum | 4/3/09 | 70 attendees, 14 written comments at event, 103 e-mailed comments |
| | E-mails, letters, phone calls and stakeholder comments on report | through 02/10 | 49 written comments |
| | Stakeholder Meetings | 4/2/09<br>4/22/09 | stakeholder group |
| Management Strategies | Open House | 3/18/10 | 171 attendees, 85 written comments at event, 52 e-mailed comments |
| | Stakeholder Meetings | 12/16/09<br>1/13/10<br>1/27/10 | stakeholder group |
| Plan Review and Adoption | Open house, site tour and Mayor's Forum | 4/15/10 | approximately 200 attendees and 105 written comments |
| | Council presentations and Public Hearings | 9 meetings in 2010-2011 | open to public |
| | Final plan adoption | 2/15/11 | open to public |

# 0. Impacts of Dogs in Open Spaces - Literature Summary

| Social Impacts | |
|---|---|
| *Owners* | • Dogs out of sight of owner<br>• Dogs non-responsive to owner's commands<br>• Owners shouting commands at dog<br>• Owners not picking up after dog |
| *Visitors* | • Dogs jumping, pawing, charging, chasing, biting or showing aggression to visitors |
| *Other dogs* | • Dog "fights" occurring in crowded areas |
| **Environmental Impacts** | |
| *Trails* | • Creation of braided and user-created trails |
| *Vegetation* | • Vegetation trampling near trails<br>• Nitrogen-rich dog waste encourages the growth of noxious and invasive weeds |
| *Wildlife* | • Dogs flushing birds and causing wildlife to flee<br>• Dogs charging, chasing, killing or showing aggression to wildlife<br>• Disruption to native carnivores through scent marking (urine and scat)<br>• Temporal displacement of wildlife<br>• Decreased populations of ground nesting birds, burrowing owls, shorebirds, deer, elk and other animals |
| *Water Quality* | • E-coli, bacteria, and coliform from dog feces threaten water safety for users on site and downstream. Dogs are also susceptible to disease from these.<br>• Playing in the water causes turbulence and stepping on banks causes erosion, both of which impact water quality and clarity. |

**Social**

- 73% of respondents in Boulder Open Space and Mountain Parks expressed some level of conflict with off-leash dogs or owners in the parks *(Vaske & Donnelly, 2007).*
- Visitors to Boulder Open Space and Mountain Parks have a low to no tolerance of dogs that are not under the control of their owners, whether by leash or voice and sight control *(Vaske & Donnelly, 2007).*

**Compliance**

- In Boulder Open Space and Mountain Parks, visitors are 66% compliant with managing dogs, and 59% compliant with picking up after dogs (are far more compliant with staying on trail, properly disposing of trash, and leaving things as they are found). Overall, more than 40% of dog waste is not picked up by visitors, and about 35% of dogs are not in compliance with the applicable dog management regulations *(Mertz 2002).*
- In the Ridge to Rivers Trail System in Boise, ID, it is estimated that approximately 400 pounds of dog waste are left along the trails each week, while only 350 pounds of dog waste are properly disposed of *(FDPWG 2008)*
- Due to lack of enforcement of leash control regulations, only about 30% of dogs in the Ridge to Rivers Trail System in Boise, ID are compliant with on-leash restrictions *(FDPWG 2008)*. 69% of dogs on the trails were off-leash *(Ridgestoriver.org 2009)*

**Wildlife**

- Summary : Scientific studies have quantified many impacts of recreation can have on wildlife and habitat. The cumulative impact of many users has a far greater impact than what many people perceive as the impact of their own use. Natural areas are occupied or used year-round by wild animals feeding, breeding and raising young. Wild animals often have limited energy and food preserves. Disturbance can cause malnutrition, death, or inability to reproduce. All of this discourages wildlife from remaining or returning in a natural area.

Presence of dogs has a correlation with reduced daytime activity for bobcats (-1.574) that is far higher than hiking (-.618), vehicle (-.100) or equestrian (.485) activity *(George & Crooks, 2006)*

- Presence of dogs has a correlation with reduced daytime activity for coyotes (-1.078) that is far higher than hiking (-.243), biking (-.229), vehicle (-.407) or equestrian (.354) activity *(George & Crooks, 2006)*
- Dogs do not "ecologically mimic their native counterparts" and create a different disturbance to wildlife than native canines and other predators *(Brennan, Knight & Lenth 2008)*
- Because dogs mimic the appearance and behavior of native canid predators, just their presence in an area can cause wildlife disturbances to other predators *(Brennan, Knight & Lenth 2008)*
- The presence of dogs significantly impacts deer within 100 meters of a trail, while the presence of just pedestrians only impacts deer within 50 meters of a trail *(Brennan, Knight & Lenth 2008)*
- The presence of dogs inversely correlates with bobcat and rabbit activity *(Brennan, Knight & Lenth 2008)*
- Dogs off leash are more unpredictable, and therefore cause more disturbance to wildlife than if they were on leash *(Brennan, Knight & Lenth 2008)*
- Dogs off-leash have a more significant impact wildlife diversity in riparian corridors than in grassland / upland areas. *(Bakeman 2008)*

**Water Quality**

- About 36% of dogs in the United States carry helminthes (parasitic worm), which can cause human disease through the contamination of soil and water
- Dog waste is one of the top 5 contributors to the contamination of water resources

## P. Sources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- Off-leash Dog Ordinance
- Animal Control Ordinance
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Salt Lake County Plans and Ordinances

- Canyon Rim General Plan
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