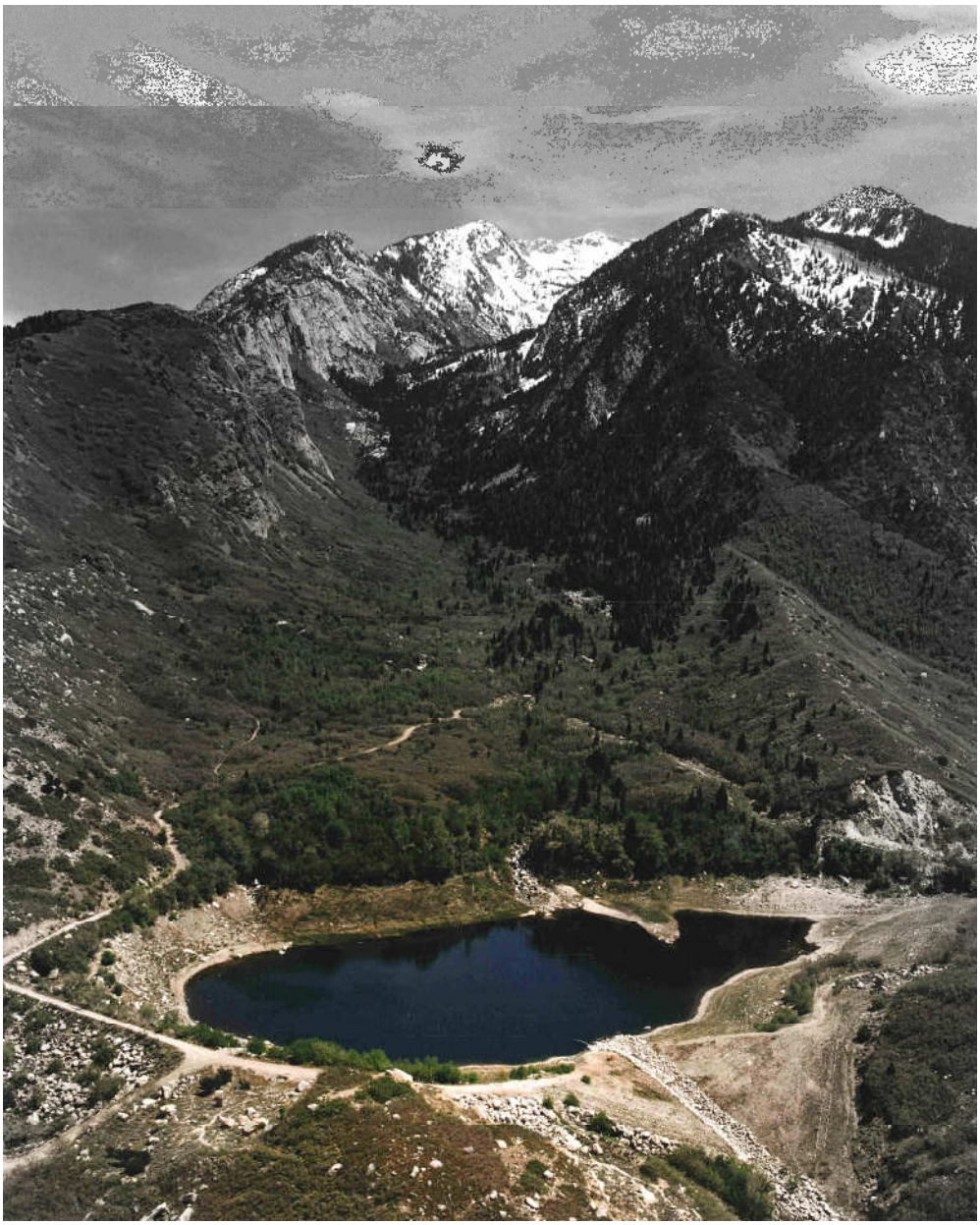
Bells Canyon Master Plan



Community Development Department
Adopted:

Sandy
HEART OF THE WASATCH

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BELLS CANYON MASTER PLAN

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"Conservation is the foresighted utilization, preservation and/or renewal of forests, waters, lands and minerals, for the greatest good of the greatest number for the longest time."

-Gifford Pinchot

Chapter 1 - INTRODUCTION

Purpose of this Plan

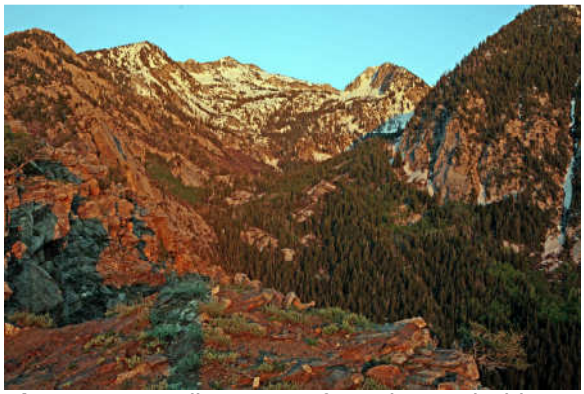


Figure 1-1. *Bells Canyon from the north ridge looking east.*

Bells Canyon is a unique and marvelous resource located within and adjacent to Sandy City, Utah, in the Salt Lake Valley. It is a geologically and recreationally significant segment of a greater mountain range known as the Wasatch Mountains. Sandy City is in a premier position to help conserve and promote this canyon for both its citizens and others who wish to visit. Sandy City has acquired approximately 240 acres of land surrounding the lower reservoir of Bells Canyon that converges with the U.S. Forest Service managed wilderness area east of the City boundaries. The intent of this plan is to manage this area by promoting and adhering to the following guiding principles:

Longevity and Sustainability – The Bells Canyon area provides an opportunity to provide an escape from urban areas, increase quality of life, and a chance to preserve important natural resources for the enjoyment of current and future generations. Watershed protection and minimizing impacts along the residential border are important factors in this area.

Facilities and Amenities – Because the amount of outdoor recreation continues to rise, there is an increased urgency to develop a plan to protect this area and prevent overuse, but still provide access and enjoyment to the community. Additional facilities and amenities should be studied to determine the impacts and effective placement that will minimize conflicts between the desired preservation of open space and continued public enjoyment.

Trails – Enhancing trail opportunities and connections in the canyon will assist in contributing to an overall local and regional trail system for the community to enjoy. Proper signs and trail markings, including difficulty and wilderness area designations, should be encouraged. A partnership

with the US Forest Service would be beneficial in connecting trail systems for an uninterrupted hiking experience.

Education – It is important to take advantage of the natural resources in the area and provide education regarding issues that affect these resources, their historical significance, and proper utilization of the area to maintain and improve the health of the canyon for future generations. An ethic should be established to better promote the sustainability of the canyon and its relationship to the surrounding wilderness area.

Fire Prevention – Because of the nature of the surroundings, the Bells Canyon area is a fire risk and significant efforts should be made in educating users of the potential risks and how to avoid possible fire outbreaks.

Funding – A fiscally sound plan for this area must be presented. It is important to understand the funding available for the proposed improvements and protections and to generate sensible goals and policies that are practical to implement, including future operation and maintenance costs incurred by the City.

Wasatch Mountains

From Nephi, Utah to the Idaho state border, the Wasatch Mountains contain a unique and exposed geologic history dating back at least 2 billion years. This range includes 13 peaks that reach over 13,000 feet and another 11 that stretch to more than 10,000 feet in height. Numerous highways and trail systems provide opportunities for people to view and experience the history that has been exposed over the years through the process of erosion. They also afford wonderful instances to experience the wilderness of this great resource and all that it has to offer, including recreation and education involving the numerous plant and animal species that reside in this mountain range.

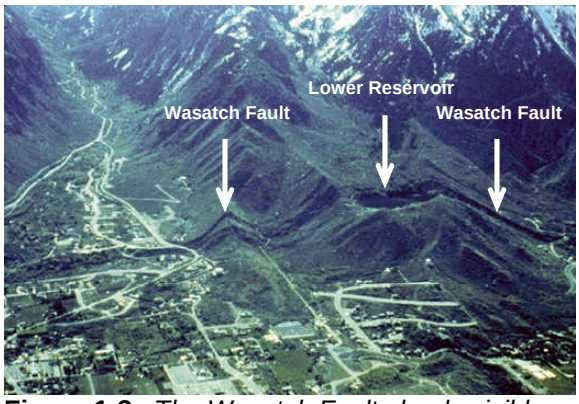


Figure 1-2. *The Wasatch Fault clearly visible along the base of the mountains (Photo courtesy of Utah Geological Survey - UGS)*

Earthquake and glacial activity have both played significant roles in the building up of the Central Wasatch Mountains. The Wastach Fault footwall and the mountains traverse one another at the base of the mountains. This fault has been active for 10 to 12 million years and has been slowly creeping upwards a

few hundredths of an inch each year. Further proof of this motion is evidenced by the Lake Bonneville shoreline that surrounds the Salt Lake Valley. Glacial moraines are apparent at the mouth of both Little Cottonwood Canyon and Bells Canyon and also show signs of the fault in action. Glaciers occupied many of the mountain valleys that had been carved out by streams in earlier ages and have since been modified again by streams and rivers.

While Native Americans have inhabited this area for generations, the area was first visited and recorded by white settlers in 1776. Fathers Silvestre Velez de Escalante and Francisco Atanasio Dominguez took up the challenge and exited the mountains near Spanish Fork, Utah. Fur trappers, including Etienne Provost (the city of Provo would later be named for him) began their trade in these mountains in the early 1820s. In 1846, the unfortunate Donner-Reed party forged a wagon route from near the site of present day Henefer, Utah, out of the mountains and into the Salt Lake Valley. Later, in July of 1847, the first Mormon immigrants entered the valley following the same path.

Bells Canyon

Figure 1-3. Lower reservoir formed by glacial retreat (Sandy City in the distance)

Bells Canyon lies directly south of Little Cottonwood Canyon in the Salt Lake area. While this lesser known canyon may not possess the more developed amenities and ski resorts of its bigger brother, it is still well recognized throughout the West. It is only one of two glaciated canyons in which ancient glaciers reached the foot of the mountains and the elevation of the ancient lakes (the other being Mono Lake in California). This is significant because it allows for scientists to accurately determine the advance and age of glaciers as well as the levels of Lake Bonneville prior to its recession.

Bells Canyon contains many significant and visible geologic features that are of interest to hikers and outdoor enthusiasts of all types. Faulted moraines as well as a strong noticeable appearance of the Wasatch fault can be viewed from many vantage points in the area. In addition, there are two manmade reservoirs present in the canyon, the lower reservoir that sits directly on the Wasatch fault, and the upper reservoir that is approximately at an elevation of about 9000 feet.

The upper reservoir was built in the early twentieth century by constructing a dam made of hand carved granite blocks and morter. The lower reservoir was built to aid in the supply of water to communities in the Salt Lake Valley. Both reservoirs were breached due to their proximity to the Wasatch Fault and the dange posed

by a possible earthquake. In the case of the lower reservoir, the fault runs directly through it.

In addition to the well known recreational opportunities afforded by Bells Canyon (discussed in the following chapter), there is a rich history of other uses in the area. Noteably, early pioneers mined granite from this and other nearby canyons for use in the construction of the Salt Lake Temple. Evidence of this activity can be witnessed by the observant hiker in some of the surrounding granite where holes have been left by the workman's tools.

Definitions

This section of the plan will seek to provide clarification on terms that may be used throughout the plan and that may also take on different meanings for people with varied interests. This effort will hopefully avoid some of the future complications and misunderstandings that are likely to occur as diverse people read and interpret this plan.

Trails – Trails can occur in a wide variety of classes from the easily traversed paved surfaces (such as sidewalks) to the very difficult natural paths of washes, game trails, and even areas only marked by cairns and other trail markers from a previous passerby. This plan seeks to protect the existing trail system that provides a range of difficulty for hikers, including the entrance to some very challenging areas as you travel past the lower reservoir and enter the Wilderness Area managed by the U.S. Forest Service.

For the purpose of this plan, a trail is defined as: *a pedestrian corridor providing non-vehicular access to resources and amenities. Depending on the level of difficulty of a trail, it may include comfort facilities such as restrooms, water, sitting areas, and/or trash receptacles.*

Open Space – Open spaces occur both naturally and in man-made form. These can include parks, common areas, or undeveloped land. Natural open spaces often occur adjacent to developed areas such as programmed parks, common areas, and neighborhoods.

For the purpose of this plan, open space is defined as: *protected lands that are preserved or enhanced in their natural state. They may be restored or improved with appropriate native landscaping and amenities to retain a natural or natural-appearing condition.*

Watershed – In addition to its aesthetic qualities, Bells Canyon also plays an important role in life in the Salt Lake Valley as a watershed. One of the major goals of this plan will be to maintain the existing high water quality

standards in Bells Canyon, while accommodating recreational opportunities that do not compromise water quality.

For the purpose of this plan, a watershed is defined as: *an entire region that drains into a waterway that drains into a lake or other body of water.*

Bells or Bell Canyon? – There is some debate as to the actual naming of the canyon. Some claim it was named for the actual shape of the moraine, which was formed from glacial activity, while others contest that the shape of the peaks that make up the northern side of the canyon led to its name. The actual form of the canyon itself could be considered similar to a bell, hence the singular form of the naming. However, hikers, climbers, and other outdoor enthusiasts see the northern wall of the canyon forming three distinct bell shaped peaks, causing the use of the plural form of the word.

For the purposes of this plan, the canyon will be referred to as Bells Canyon (plural). This decision was based on studying the available USGS maps that have historically referred to the area as Bells Canyon.

Plan Timeframe

The planning process for Bells Canyon was begun in May of 2009. It was determined that the City owned land in the area should be utilized to protect the watershed and to preserve and enhance this natural amenity for the residents of Sandy City and others who desire to experience all that the canyon has to offer. In this light, a working timetable was established with a goal of completing the plan by June of 2010 (see Table 1-1). This schedule allowed for the necessary time to study and discuss the needs and priorities of the plan while still allowing for a relatively swift adoption and implementation of top priorities.

PHASE	TASKS	TIMEFRAME
Initiation and Formation of Steering Committee	1. Initiation of plan by City Council 2. Formation of Steering Committee 3. Bells Canyon familiarization 4. Guiding principles establishment	May 2009 – August 2009
Analysis	1. Existing conditions 2. Needs and priorities assessment	July 2009- October 2009
Plan Development	1. Opportunities and constraints 2. Plan Outline 3. Goals and policies development	October 2009 – Feb. 2010
Public Input	1. Hold public open house	April 2010
Recommendations	2. Implementation strategies 3. Draft Plan presentation	May 2010
Adoption	4. Final Plan adoption by City council	June 2010

Table 1-1. *Plan process involvement*

Figure 1-4a. *City Council and staff toured the lower reservoir in July 2009.*

Figure 1-4b. *Mike Coulam, Community Development Director points out features to Byron Jorgensen, City Manager during the City Council tour.*

Plan Organization

This plan is organized into four chapters, each covering an important variable in the planning necessary to manage the Bells Canyon area:

Chapter 1: *Introduction* gives a brief history of the Wasatch Mountains, Bells Canyon, and the importance of this master plan.

Chapter 2: *Bells Canyon Today* takes you through the existing conditions in the Canyon as they are at the time of the formation of this plan. This includes the natural setting, amenities available, watershed priorities, and relationship to urban and public lands, population trends, and regional planning efforts.

Chapter 3: *Bells Canyon Tomorrow* presents a plan with a vision of the future that incorporates possibilities of recreation, preservation, and watershed protection.

Chapter 4: *Strategies* discussed the possible solutions to the problems that normally face the implementation of a master plan. This chapter establishes available planning tools, management strategies, and potential funding opportunities.

Sources Utilized

Most photos used in this plan are courtesy of either Jim McClintic, Chris McCandless, The Utah Geological Survery, or Staff.

Much of the historical and geological data contained in this introduction came from the following sources:

Parry, William T. *A Hiking guide to the Geology of the Wasatch Mountains: Mill Creek and Neffs Canyons, Mount Olympus, Big and Little Cottonwood and Bells Canyons.* The University of Utah Press. 2005

Utah History Encyclopedia. The University of Utah Press. 1994

"Climb the mountains and get their good tidings.

Nature's peace will flow into you as sunshine flows into trees.

The winds will blow their own freshness into you…

While cares will drop off like autumn leaves."

-John Muir

Chapter 2 - THE CANYON TODAY

Natural Setting

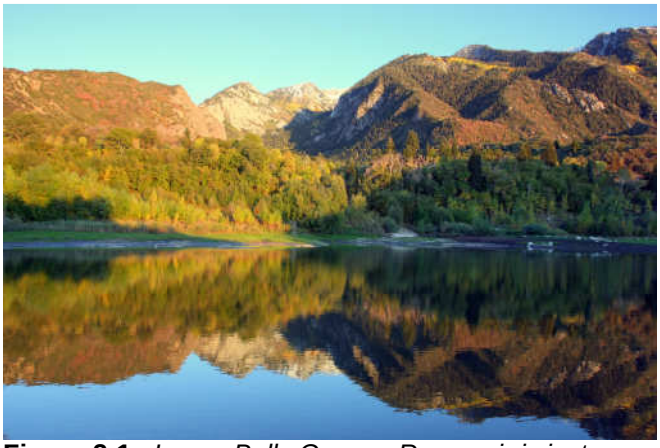


Figure 2-1. *Lower Bells Canyon Reservoir is just a short hike from the urban environment.*

One of the biggest draws for visitors to the canyon is its natural beauty and scenery provided just a short hike from the urban setting. While the lower and upper reservoirs were originally created for water supply purposes, they now offer a much-needed respite from the hectic city life. The variety of scenery, plants, and animal life offered throughout Bells Canyon is pleasantly surprising, but not unexpected as the canyon rises over 5000 feet in elevation in just under 4 miles (from trailhead to upper reservoir). The area now owned by Sandy City, is bordered to the east by the Lone Peak Wilderness area and offers an even more remote escape to more experienced hikers and adventurers. There are very few developed amenities, mainly those relating to maintenance of the watershed, some trails, and a bridge crossing for one section of the creek.

As the canyon rises, the vegetation changes from the common desert shrubbery and trees to deciduous and evergreen trees that create a colorful patchwork canopy during spring and summer and a stark but striking contrast in the winter months. Wildflowers and shrubs are abundant during spring and summer as well and provide a serene landscape for those seeking it. Granite outcroppings rise from the hills contributing to the aesthetic landscape and a wide assortment of animals can be observed in their natural habitat, including mountain goats, mountain lions, deer, coyotes, moose, and foxes. Various types of fowl and birds

of prey can also be seen around the lower reservior during different times of year.

Watershed

In May of 1997, Sandy City annexed and purchased approximately 240 acres of land surrounding the lower Bells Canyon Reservoir with Sandy City Water Funds, in an effort to provide a protected water resource. Specific restrictions and conditions were placed in the purchase agreement to ensure that this area would remain viable for a water source while still allowing recreational uses that are compatible. The purpose of establishing watershed areas is to permit the use of regulation and controlled land use practices to protect water quality and the natural recharge conditions of watersheds that are essential for the population of the Salt Lake Valley.

Sandy City's Watershed Protection Ordinance (14-5-13) restricts domestic pets, livestock, and horses from all areas and trails above any source of diversion point. It also restricts anyone from: operating off road motor vehicles (except official government business vehicles); depositing human excreta other than in approved toilets; camping outside of designated areas; bathe, swim, or washing of items; and throwing or breaking glass.

The Sandy City General Plan contains policies and objectives for watershed management (Appendix T). The plan dictates a two-tier management of the watershed in regards to Bells Canyon. While the lower reservoir falls under the jurisdiction of Sandy City, the upper reservoir is under the control of the U.S. Forest Service. However, both contribute to the water supply and it is important that regulations and policies apply to the entire watershed. The Forest Service already employs best management practices and an ethic of "Leave No Trace" in its management of the Lone Peak Wilderness Area and these policies should be continued as possible on the land around the lower reservoir.

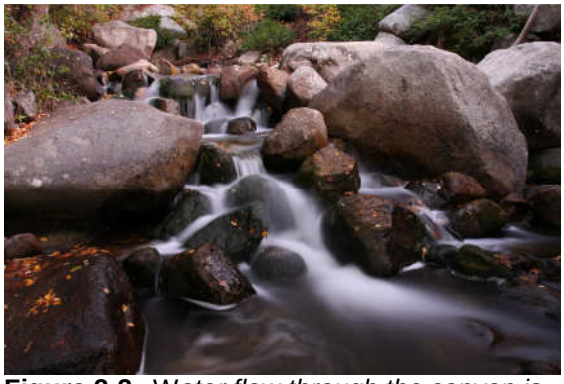


Figure 2-2. *Water flow through the canyon is an important part of the watershed.*

Figure 2-3. *The natural backdrops offered in the Bells Canyon area draw people of all interests.*

Watershed Map

Preservations Areas Map

Visitation

Responsible visitation and enjoyment of Bells Canyon is encouraged. This area is an integral component in Sandy City's available open space and should be enjoyed and utilized by its citizens. While there has been no official tracking of the number of visitors, it is evident to those who have been utilizing the canyon for a number of years, that there has been a significant increase over the last decade. This increase has lead to concerns regarding not just the protection of the watershed, but also public safety, overuse, and fire prevention. These concerns will be addressed in the next chapter.

Urban Boundary

Because of the desirability of living near Sandy City's foothills and the expansive growth experienced in community over the last 30 years, both trails leading to the Lower Bells Canyon Reservoir begin and travel near residential areas. Residential development creates a boundary and a gateway from the urban environment into natural open space. Treatment of this boundary, or edge area, can determine the recreational experience and amount of protection provided in the canyon. If not taken into consideration, future development could compromise the recreational, wildlife, aesthetic, and water resources currently enjoyed by the City's residents.

Figure 2-4. *Houses line the foothills and boundaries around Bells Canyon (the canyon is shown on the left of the mountain range).*

Entry Into Public Lands

Two major landowners border the 240 acres currently owned by Sandy City. To the south and west is under the ownership of a private residential developer. However, to the north and east, is land under the control of the U.S. Forest Service. The desire of the City is to provide a cohesive environment in which the only indication of transition from one public ownership to the next is the sign stating entry into a national wilderness area.

The main goals of the U.S. Forest Service in managing wilderness areas are to protect ecological integrity while providing non-motorized and non-mechanized recreational opportunities. Modifications to the natural environment must conform to their management practices and they promote primarily day uses with some limited overnight use by permit. Forest Service management principles also restrict the addition of new trails with the exception of short segments to facilitate the completion of the Bonneville Shoreline Trail. User created trails are

not allowed, however there is a review process for those trails that have received high use to determine if they are suitable to include in the overall trail system.

While there will be some differentiation between the management in the wilderness area and that surrounding the lower reservoir, it is the City's desire to maintain, as much as possible, a consistency with the policies outlined by the U.S. Forest Service's best management practices and their ethic of "Leave No Trace".

Figure 2-5. *This sign demonstrates the U.S. Forest Service goal of providing non-motorized and non –mechanized modes of recreation – (notice that hang gliders are prohibited).*

Existing Trails and Amenities

A map containing the current network of approved trails for the area around the Bells Canyon area currently owned by Sandy City is included in this chapter. Current developed amenities are few and include only necessary watershed and reservoir equipment (including an access right-of-way) and a bridge crossing for the trail system. This trail system includes a connection to the wilderness area and will eventually tie into the Bonneville Shoreline Trail system.

Travel to the lower reservoir is a short hike that would be enjoyable for most residents. The hike to the upper reservoir is much more challenging and anyone contemplating the journey should ensure that they are adequately prepared.

Some of the key features of the Canyon are the granite towers of variable quality that are popular for rock climbers (a hike from one to two hours – no road access). Mountain biking, while not prohibited, is discouraged, particularly since the terrain is extremely rough and strewn with granite boulders, outcroppings, and steps and has potential to generate conflict with hikers on the trail.

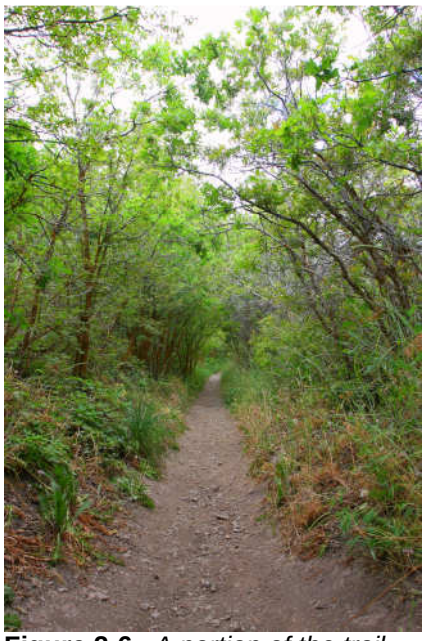


Figure 2-6. *A portion of the trail system around the lower reservoir in the canyon.*

Because the City desires to promote longevity and sustainability on this land, an evaluation of

Existing Amenities Map

Ownership Map

unauthorized trails will be conducted and closures made as necessary. New trails will be considered, but most likely discouraged to prevent overuse of this resource.

Population Trends

Sandy City is the fifth largest city in the state of Utah and experienced the majority of its growth between 1980 and 2000. The U.S. Census Bureau estimates that Sandy's population in 2008 was 96,660, which is a 9% increase over the 2000 Census population. Sandy City prides itself on being a family friendly community as was shown by the 2000 Census results demonstrating that 88% of households in Sandy were families.

Even though little undeveloped land is available within the city limits, it is anticipated that Sandy City will continue to grow at a low to moderate pace. The Wasatch Front Regional Council (WFRC) forecasts a 70% increase in population along the Wasatch Front over the next 30 years (Salt Lake, Davis, and Weber counties – see *Wasatch Choices 2040* publication from WFRC). While a majority of this growth will most likely occur in the western valley of Salt Lake County, some increase can be expected in Sandy City. Continued development and redevelopment of underutilized parcels will lead to a continued increase in population, placing an even greater demand on the recreational facilities and natural open space available within the City.

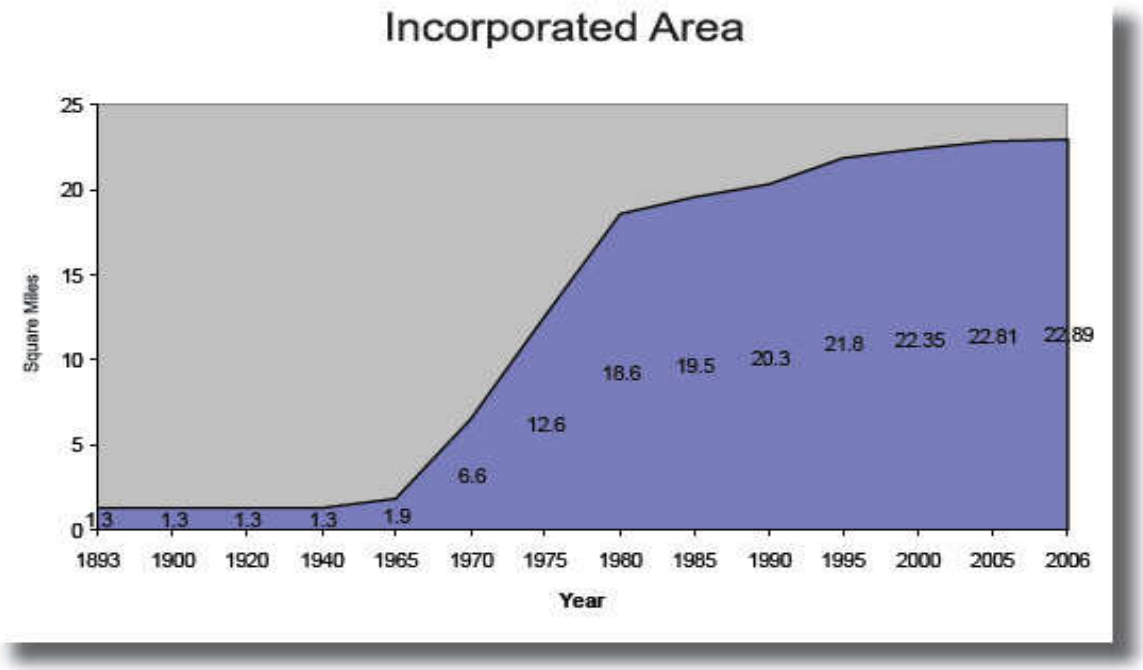


Figure 2-7. *Sandy City Population Growth – from* 2008 Sandy City Statistical Report

Population Estimates

Wasatch Front Regional Council Population Estimates for Sandy

Year	Estimate
2005	94,009
2010	99,237
2020	107,319
2030	108,971
2040	111,067
2050	114,140

Source: Wasatch Front Regional Council, 2005 Update

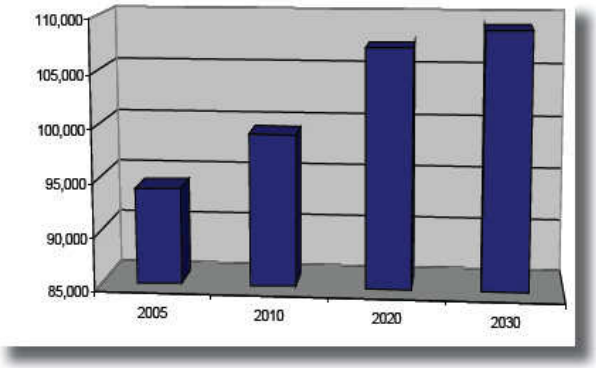


Figure 2-8. *Sandy City Population Estimates – from* 2008 Sandy City Statistical Report

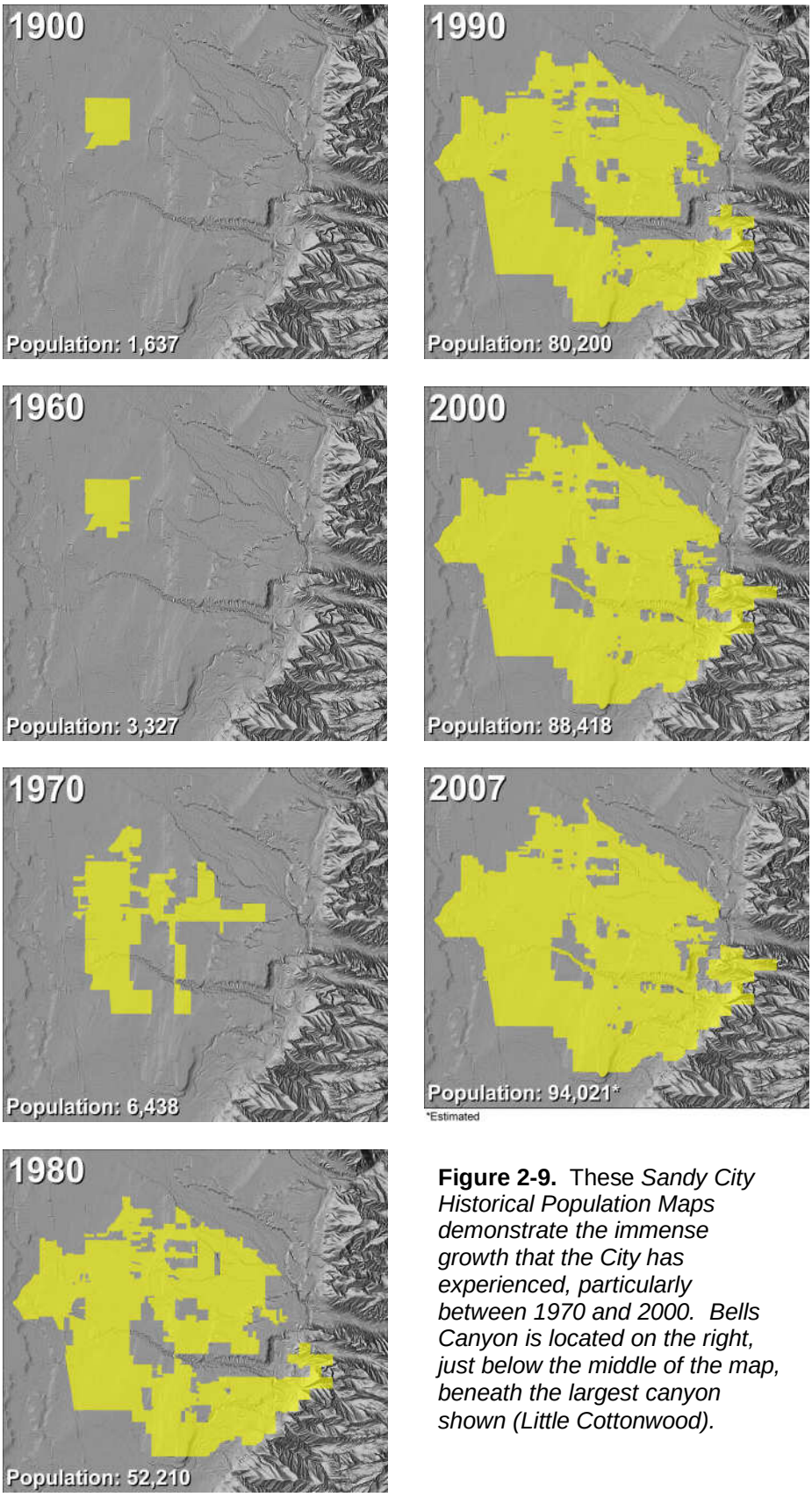


Figure 2-9. These *Sandy City Historical Population Maps demonstrate the immense growth that the City has experienced, particularly between 1970 and 2000. Bells Canyon is located on the right, just below the middle of the map, beneath the largest canyon shown (Little Cottonwood).*

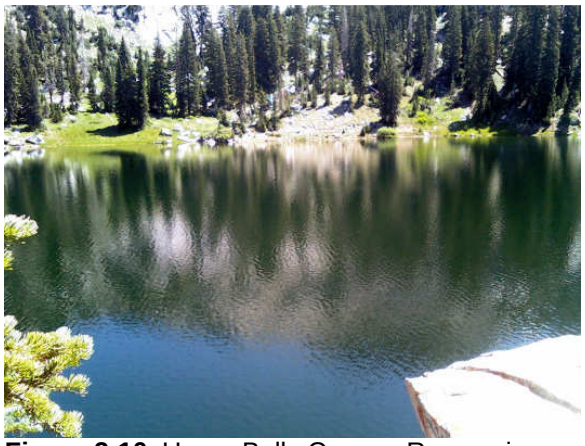


Figure 2-10. Upper Bells Canyon Reservoir was created by placing a dam of hand carved granite blocks and morter (right) in the path of the water flow.

Figure 2-11. Councilman Chris McCandless at the Upper Bells Canyon Reservoir in winter. Some of the original granite blocks of the dam can be seen to the right.

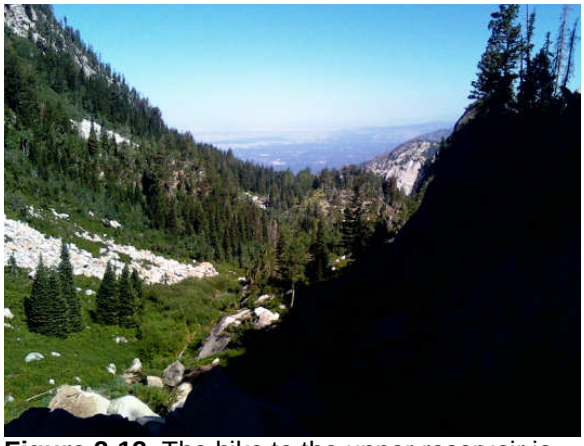
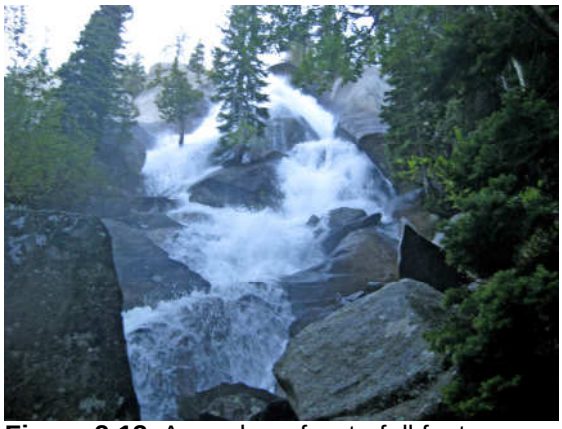


Figure 2-12. The hike to the upper reservoir is challenging and arduous and includes scrambling over a field of granite boulders



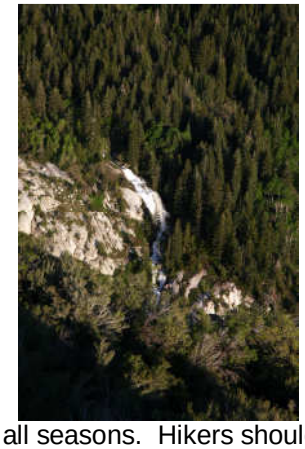


Figure 2-13. A number of waterfall features can be found in Bells Canyon in all seasons. Hikers should be wary of the fast flowing spring runoff.

"We are made wise not by the recollection of our past, but by the responsibility for our future."

-George Bernard Shaw

Chapter 3 STRATEGIES FOR TOMORROW

Vision

The vision for this area is to preserve the resources that are provided by Bells Canyon while still offering recreational opportunities for our citizens. Bells Canyon provides us with several key elements that contribute to a high quality of life, one of the most important of which is water. Use of the area has continued to increase over the last decade and it is not expected that demand will lessen in the near future. We must strive to find a balance between essential preservation and recreational activity.

Goals

Existing Policies – The following plans are already in place to manage various watershed and recreational areas, including Bells Canyon and it is advised that they continue to be implemented and followed:

East Bench Trailhead Master Plan – *November 1997, Sandy City*

Sandy City Public Utilities Department Watershed/Water Quality Management Plan – *September 2002, Sandy City* (see appendix for applicable sections)

Revised Forest Plan Wasatch-Cache National Forest – *February 2003, United States Forest Service*

Sandy City Parks and Recreation Trails Master Plan – *Updated 2005, Revised 2009, Sandy City*

Bonneville Shoreline Trail Alignment Plan For Salt Lake County – *Amended to Sandy City Parks and Recreation Trails Master Plan, 2005*

Proposed Goals and Policies - A number of concerns were raised during the planning process for this area. Under the purchase agreement for the Bells Canyon reservoir land, the City is obligated to preserve the watershed and comply with the Open Space (OS) zoning designation per the City's Land Development Code. Bells Canyon is a valuable natural

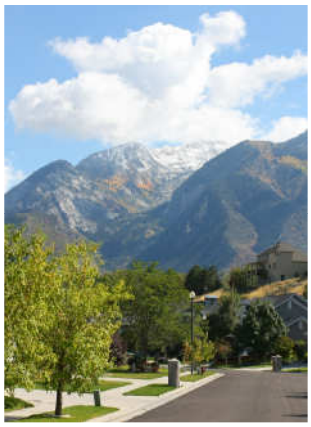
resource utilized for a number of purposes and several factors were taken into consideration when forming these goals. The following table was developed with this canyon in mind, but could easily be applied and adapted to the broader context of the Wasatch Front:

Category	Goal	Policies
1. Watershed – The purpose in creation of the watershed districts was to establish standards by which critical areas of the public water supply could be controlled and protected. This also aids in maintaining the natural conditions that draw people to these areas for recreational purposes. 	Maintain adequate water quality in the Canyon	a. Maintain the "KEEP IT PURE!" ethic by promoting awareness and education of the importance of the canyon (See Watershed/Water Quality Management Plan). b. Create an acceptable use threshold based on water quality and conduct regular use evaluations through trail counters, surveys, etc. c. Design and construct adequate restroom facilities at an appropriate site.
	Promote uses that do not conflict with the overall purpose of maintaining the watershed	d. Rehabilitate heavy use areas through maintenance of trails, close unauthorized trails, revegetation of damaged areas, and other efforts. e. Continue to abide by and enforce the regulations established in the Sandy City Public Utilities Department Watershed/Water Quality Management Plan.
	Encourage partnerships with other affected entities and interests in the canyon	f. Continue to strengthen inter-departmental communication and relationships when dealing with Bells Canyon. g. Work with outside agencies and private land owners to promote efficient transitions between public and private lands and the possible sharing of management resources.

Category	Goal	Policies
2. Safety & Access – Higher recreational use of Bells Canyon has led to an increase in the number of trails and accessible areas (authorized as well as unauthorized), which in turn has led to a higher risk of fire. It is important to mitigate this danger for both outdoor activities as well as the threat to the residents living nearby, while still maintaining authorized access to recreational activities.	Provide reasonable access for emergency personnel	a. Examine possible non-paved upgrades to the existing service roadway leading to the lower reservoir. b. Support necessary efforts to provide an reasonable water supply and delivery method for fire fighting. c. Maintain reasonable access for emergency vehicles and personnel in the currently developed and any future residential areas that have available access to the canyon (via road, trail, or other means)
	Educate the public on the existing dangers and their responsibility to use this area safely and conscientiously	d. Provide reminder signs where possible along major trails and in high use areas, regarding the dange and activities that increase risk (i.e. smoking, fireworks, campfires, etc.). e. Partnership with the US Forest Service in patrolling and enforcing current laws and policies, especially where City land abuts the Lone Peak Wilderness area.

Figure 3-1. In August of 2008, a fire burned more than 800 acres in Corner Canyon, Draper, Utah. Measures to avoid this type of disaster in the Bells Canyon Area should be a priority.

Category	Goal	Policies
3. Trails & Recreation – As mentioned earlier in this plan, this area provides a premier recreational opportunity for both residents of Sandy City and visitors. Both casual and challenging activities exist throughout the canyon.	Provide clearly marked recreational opportunities and trails for people to enjoy	a. Work with the US Forest Service in creating a theme for recreational and trail signage that is in harmony with that of the Lone Peak Wilderness area. b. Work with adjacent property owners to complete the section of the Bonneville Shoreline Trail that will pass through this land. c. Enhance existing informational kiosks and provide new signage and maps of appropriate activities where needed. d. Promote trail maintenance partnerships with public and private groups as well as non-profit organizations and other service entities. e. Consider allowing for permit only camping opportunities and/or winter use only facilities (such as a Yurt). f. Construct an adequate pedestrian crossing or bridge over the outlet area on the west side of the lower reservoir to allow a completely accessible trail around the reservoir.
	Educate users regarding the intent and hazards involved in recreating within the Lone Peak Wilderness Area	g. The trail system leading into the wilderness area quickly becomes very challenging and hikers that are unprepared could easily be caught unprepared. The City should encourage users to become educated on these dangers through informational signage posted in conjunction with that of the US Forest Service.

Category	Goal	Policies
(Trails & Recreation Continued) 	Provide complimentary amenities that allow for both basic necessities and opportunities to enjoy the existing natural setting	h. Provide sitting areas that are natural in appearance and will blend into the environment (i.e., boulders, stone materials, etc.). i. Research the possibility of assembling a natural rock seating area on the west side of the lower reservoir. j. Provide interpretive signage at appropriate areas along the trail system to provide information on water resources, wildlife, plant life, and other significant subjects. k. Continue to promote and enforce catch and release fishing in the lower reservoir and investigate any possible enhancements that might make the experience more remarkable.
4. Edge Development – With the expected continued growth in Sandy City, it is important to consider any impacts that may occur by new construction around the Bells Canyon area. 	Create appropriate transitions between urban and public lands in order to maximize the benefit of the Bells Canyon open space resource.	a. Continue to abide by the City's hillside preservation ordinance and study ways to increase the protection of this area with minimal impacts to land owners. b. Any new development should consider the impacts to historic access into the canyon and contemplate potentially providing new access or connections. c. Encourage appropriate development at the urban edge to preserve scenic resources, allow for public access to the canyon, and provide a smooth transition between the developed and natural environments. d. Consider offering development incentives such as, transfers of development rights, cluster development, and bonus densities.

Category	Goal	Policies
(Edge Development Continued)	Increase Public Open Space holdings around the canyon and provide additional recreational opportunities	e. Investigate opportunities of future land acquisition for parks and trails facilities f. Increase the amount of available parking at trailheads and other future recreational facilities.

Proposed Amenities Map

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"Good thoughts are no better than good dreams, unless they be executed."

-Ralph Waldo Emerson

Chapter 4 IMPLEMENTING THE VISION

Watershed Preservation

Supporting Goals	
Goal 1.1	Maintain adequate water quality in the canyon
Goal 1.2	Promote uses that do not conflict with the overall purpose of maintaining the watershed
Goal 1.3	Encourage partnerships with other affected entities and interests in the canyon

Recommendation 1: Develop an Acceptable Use Threshold

Sandy City should study the affects of recreational use in the Bells Canyon area and ascertain an acceptable level that minimizes negative impacts to the water supply while still allowing for maximum possible enjoyment. A way to monitor this level on a regular basis and possible restrictions or limitations that may be implemented if this threshold is reached, should be researched and considered for adoption.

Figure 4-1. *Bells Canyon Lower Reservoir during winter.*

Department Lead: Public Utilities Department, Parks and Recreation Department

Additional Participants: Community Development Department, Police Department, Fire Department, U.S. Forest Service.

Timeframe: Ongoing

Recommendation 2: Construct Appropriate Facilities to Encourage Proper Management of Waste

It is clear, that from the current level of use and the expected increase in number of visitors, that a restroom facilities near the lower reservoir is

essential in helping to prevent contamination of the water supply. There is currently a facility at the Granite Trailhead (3470 E. Little Cottonwood Road), however much of the activity in the area centers around the lower reservoir where people tend to gather. To reduce the amount of staff and cost associated with this restrooms, low-maintenance options should be considered.

Department Lead: Parks and Recreation Department

Additional Participants: Public Utilities Department

Time Frame: Short-term (dependent on funding)

Recommendation 3: Educate Users About the Importance of the Watershed and the Impacts It had on Our Community

The City currently partners with several other organizations in promoting the "Keep It Pure!" ethic. They should continue to improve their partnership opportunities and seek out other associations, which can assist in educating the public and recreational enthusiasts. This includes an effort to gain the support of trail and facility users, neighbors, non-profit organizations, and others.

Department Lead: Public Utilities Department

Additional Participants: Community Development Department, Parks and Recreation Department

Timeframe: Ongoing

Recommendation 4: Maintain a Viable Trail System Through Rehabilitation, Close Unauthorized Trails, and Revegetation

Many unauthorized trails, camping areas, fire pits, and other disturbances have been found throughout the area. Utilizing GPS technology, these locations could be targeted and mapped. They should then be studied to determining their impacts and decide if continued use is practical or if they should be reclaimed. Heavy use trails can be rehabilitated through maintenance, revegetation, and other methods deemed necessary. Many of the tasks that will be required to carry out this recommendation could be done by volunteer or non-profit organizations.

Department Lead: Parks and Recreation Department

Additional Participants: Community Development Department, Youth Groups, Trails Groups, Other volunteer organizations

Timeframe: Immediate

Land Management

Supporting Goals	
Goal 2.1	Provide reasonable access for emergency personnel
Goal 2.2	Educate the public on the existing dangers and their responsibility to use this area safely and conscientiously
Goal 4.1	Create appropriate transitions between urban and public lands in order to maximize the benefit of the Bells Canyon open space resource.
Goal 4.2	Increase Public Open Space holdings around the canyon and provide additional recreational opportunities.

Recommendation 1: Ensure that emergency personnel have reasonable resources necessary to perform their job

With the high use of this area, it is important that emergency personnel are able to respond quickly to calls regarding injuries, fire, lost hikers, and other emergency situations. The City should consider upgrading the service access route so that it can support any necessary emergency vehicle traffic. Additionally, a reasonable water supply and delivery system should be available for fighting fires in this high-risk area. A continued partnership with the U.S. Forest Service and the Unified Fire Authority (of Salt Lake County) will also benefit the City and its residents.

Department Lead: Fire Department, Police Department

Additional Participants: Public Works Department, Unified Fire Authority, U.S. Forest Service

Timeframe: Short-term/Long-term (dependant on funding)

Recommendation 2: Maintain Sufficient Access to the Area Through Developed Areas Around the Canyon

Access for both recreational uses and emergency personnel should be maintained through all developments, both existing and future. Where access is currently not available but desired, a means of negotiating this with property owners should be sought out. Historic means of access to the canyon should be considered when new developments are proposed. New construction or redevelopment of existing construction should be sensitive to preservation of scenic and recreational resources by utilizing compatible designs that minimize impact.

Figure 4-2. Evening in the Canyon

Department Lead: Community Development Department

Additional Participants: Fire Department, Parks and Recreation Department

Timeframe: Immediate

Recreation Strategies

Supporting Goals	
Goal 3.1	Provide clearly marked recreational opportunities and trails for people to enjoy
Goal 3.2	Educate users regarding the intent and hazards involved in recreating within the Lone Peak Wilderness Area
Goal 3.3	Provide complimentary amenities that allow for both basic necessities and opportunities to enjoy the existing natural setting

Recommendation 1: Develop a Consistent Sign Theme that is Easily Recognizable and Understood for Visitors

One of the most important resources in having visitors adhere to the rules and regulations of open space recreation areas is making sure they know the rules. The City should work to create signage and other marketing materials that are easily understood and establish a feeling of responsibility in the users of this unique resource. The U.S. Forest Service should be consulted and materials compared to promote a consistent idea and smooth transition between the Bells Canyon area owned by the City and the wilderness area controlled by the U.S. Forest Service.

Department Lead: Parks and Recreation Department

Other Participants: Community Development Department, Public Utilities Department, U.S. Forest Service

Timeframe: Short-term

Recommendation 2: Work to Complete Trail Systems that Travel In and Through the Bells Canyon Area

There are two major trail systems that will travel through this area. Currently, the internal trail is connected to the Lone Peak Wilderness Area and travels to the Upper Bells Canyon Reservoir. This link should be maintained and enhanced as necessary to ensure safe travel to the wilderness area. In addition, the Bonneville Shoreline trail system is planned to enter this location to the south of the lower reservoir (connecting this resource to that of Hidden Valley Park) and continue on to the north. The City should continue to work with adjacent property owners

to plan an uninterrupted connection. A pedestrian crossing to the west of the reservoir and trail maintenance partnerships would greatly assist in completing an accessible loop trail for visitors to enjoy.

Figure 4-3. This photograph, looking west from the north rim of the Canyon, shows some of the existing trail network.

Department Lead: Parks and Recreation Department

Additional Participants: Community Development Department, Youth Groups, Trails Groups, Other volunteer organizations

Timeframe: Short-term (dependant on funding)

Recommendation 3: Provide Recreational Amenities that are in Harmony with the Desire to Maintain a Natural Setting

Throughout the planning process, it was apparent that the greatest desire was to maintain the area in a natural state, as much as possible. Therefore, recommendations for additional amenities beyond what currently exists were limited. Any future improvements should blend with the environment and not detract from the natural experience that this resource offers. Bearing this, the following improvements are recommended for consideration:

a. Restroom Facilities (see Recommendation 2 under Watershed Management in this section).
b. Improvements to the existing catch and release fishing
c. Educational signage including maps, rules, and regulations
d. Connection to the Bonneville Shoreline Trail System
e. Increased parking at trailheads
f. A natural rock seating area on the west side of the reservoir
g. Natural seating options, including boulders, stone, rock, or wood benches, in appropriate view areas and other locations.
h. A winter use only Yurt for group outings
i. Permit only camping areas

Department Lead: Parks and Recreation Department

Additional Participants: Community Development Department, Youth Groups, Trails Groups, Other volunteer organizations

Timeframe: Ongoing

Financing Potential

Recommendation 1: Incorporate Policies From the Bells Canyon Master Plan into Adjacent Development Proposals and Other Plans as Appropriate

By including pertinent policies and considering this plan when reviewing developments adjacent to this area, the City is able to promote the vision of this canyon as a valuable natural resource and encourage the developer to construct amenities and trails that will further protect and enhance this area.

Department Lead: Community Development Department

Additional Participants: Public Utilities Department, Parks and Recreation Department, Public Works Department, Police Department, Fire Department

Timeframe: Ongoing

Recommendation 2: Seek Out and Apply for Available State and Federal Grants

There are numerous grants available for water resource protection, open space preservation, trail development, and more. The City should continue to seek out these grants and apply for those they are eligible for. Application deadline dates should be carefully tracked and timeframes outlined should be followed to ensure eligibility. Coordination between various departments will often be necessary as many grants have specific requirements not always covered under the responsibilities of a single department.

Department Lead: Community Development Department

Additional Participants: Public Utilities Department, Public Works Department, Parks and Recreation Department, Fire Department, Police Department

Timeframe: Ongoing

Recommendation 3: Foster Community Support for Preserving and Improving the Canyon

Instilling a sense of ownership and responsibility is essential in preserving a natural open space resource and recreation area. The City departments currently have many high-quality programs in place that need to be continued in order to convey this to the users of the Canyon. Public meetings and open houses are a wonderful tool to garner support when

improvements and projects are being proposed. Continued involvement with groups such as trail users, home owners associations, and non-profit organizations often yield resources and volunteer labor that might not otherwise be available. Additionally, for many grants, the demonstration of community support and involvement is a highly weighted criterion.

Department Lead: Community Development Department

Additional Participants: Public Utilities Department, Public Works Department, Parks and Recreation Department, Fire Department, Police Department

Timeframe: Ongoing

Recommendation 4: Explore the Possibility of Implimenting Mitigating Incentives for Development Near Bells Canyon

It is important that any additional development near Bells Canyon consider the proximity to this resource and that the owner and the City mitigate any negative impacts as possible. This could include incentives for the developer to utilize practices such as, clustering development, transfering development rights, providing additional open space, and other successful methods, in order to diminish the effect of building near the Canyon.

Department Lead: Community Development Department

Additional Participants: Public Utilities Department, Public Works Department, Parks and Recreation Department, Fire Department, Police Department

Timeframe: Ongoing

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APPENDIX

A

Public Comments

(To be inserted once all public comment is received – prior to adoption by the City Council)

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APPENDIX

B

Sandy City Public Utilities Department
Watershed/Water Quality Management Plan
September 2002

Chapter 2 – Recommendations
Section A through I

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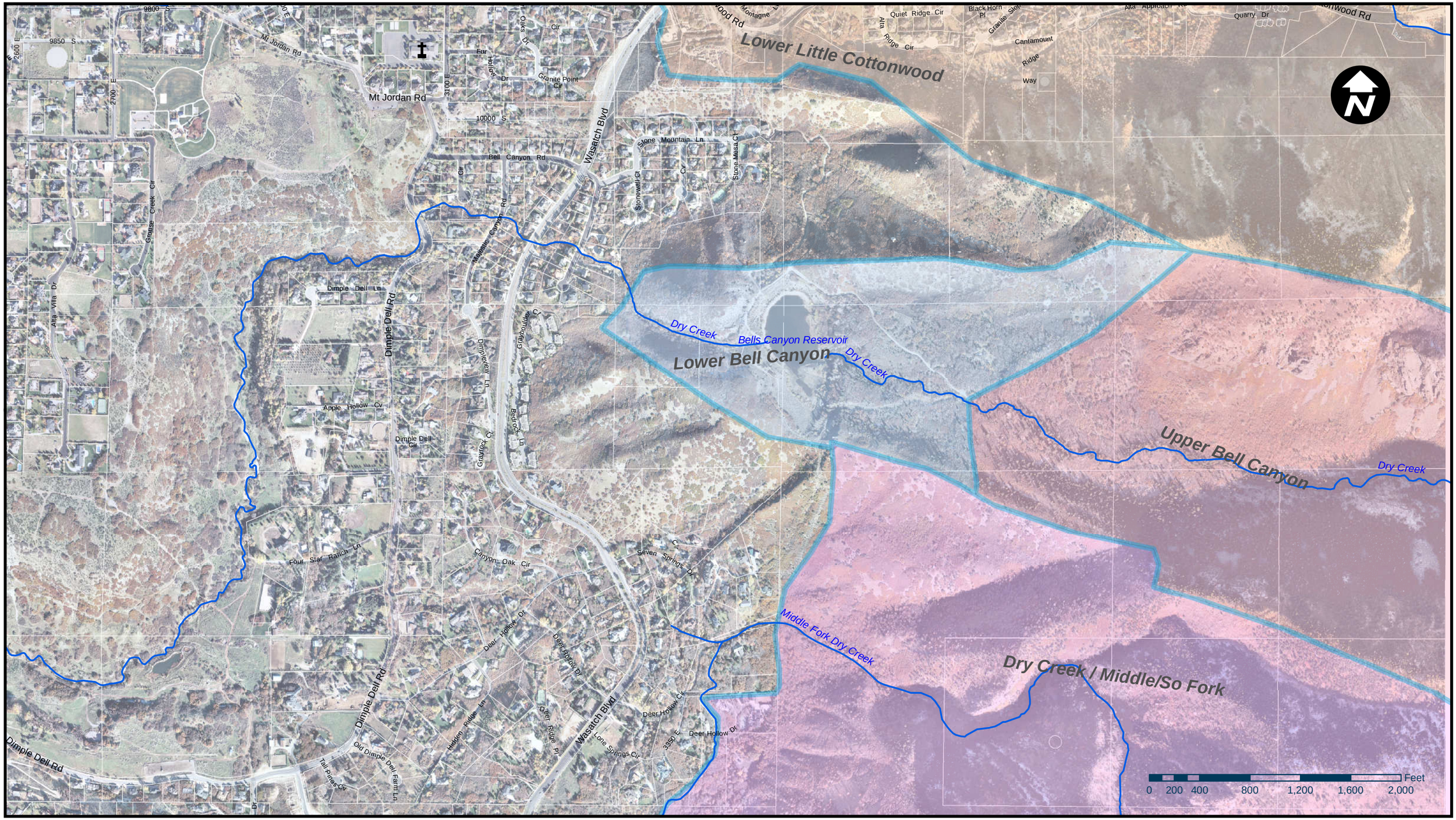
APPENDIX

C

Agreement for the Sale of
Bell Canyon Reservoir Land

Recorded 05/30/1997 at the
Salt Lake County Recorder's Office
(#6656459)



Sandy
HEART OF THE WASATCH

LEGEND

Watershed Names

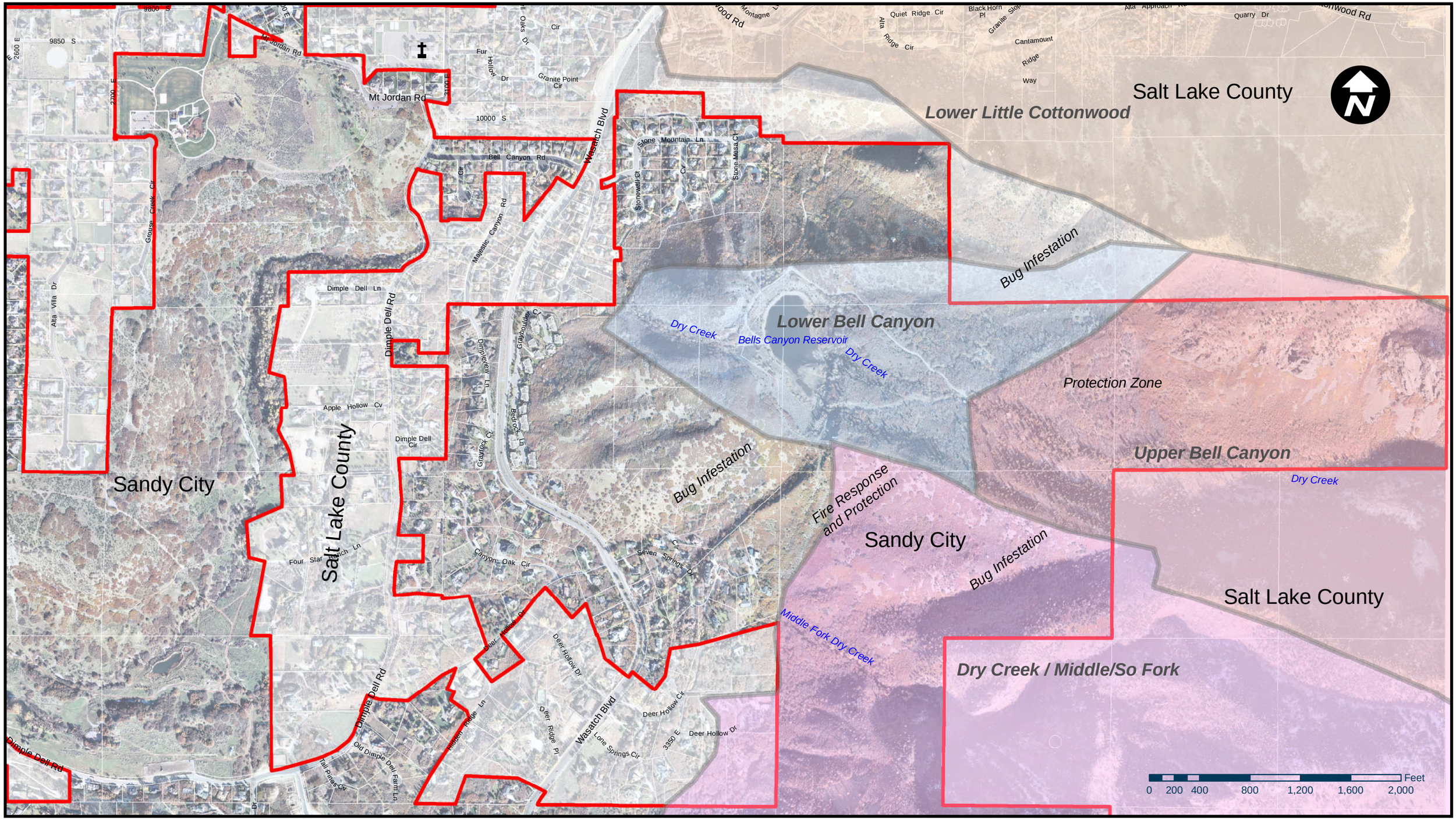
6 inch resolution aerial photography from 2007

White lines indicate property lines

PRODUCED BY THE COMMUNITY DEVELOPMENT DEPARTMENT :: RAY LINDENBURG, PLANNER

Bells Canyon Master Plan

Watershed Map



Sandy
HEART OF THE WASATCH

LEGEND

Protection Areas
Watershed Names

Sandy Borders

6 inch resolution aerial photography from 2007

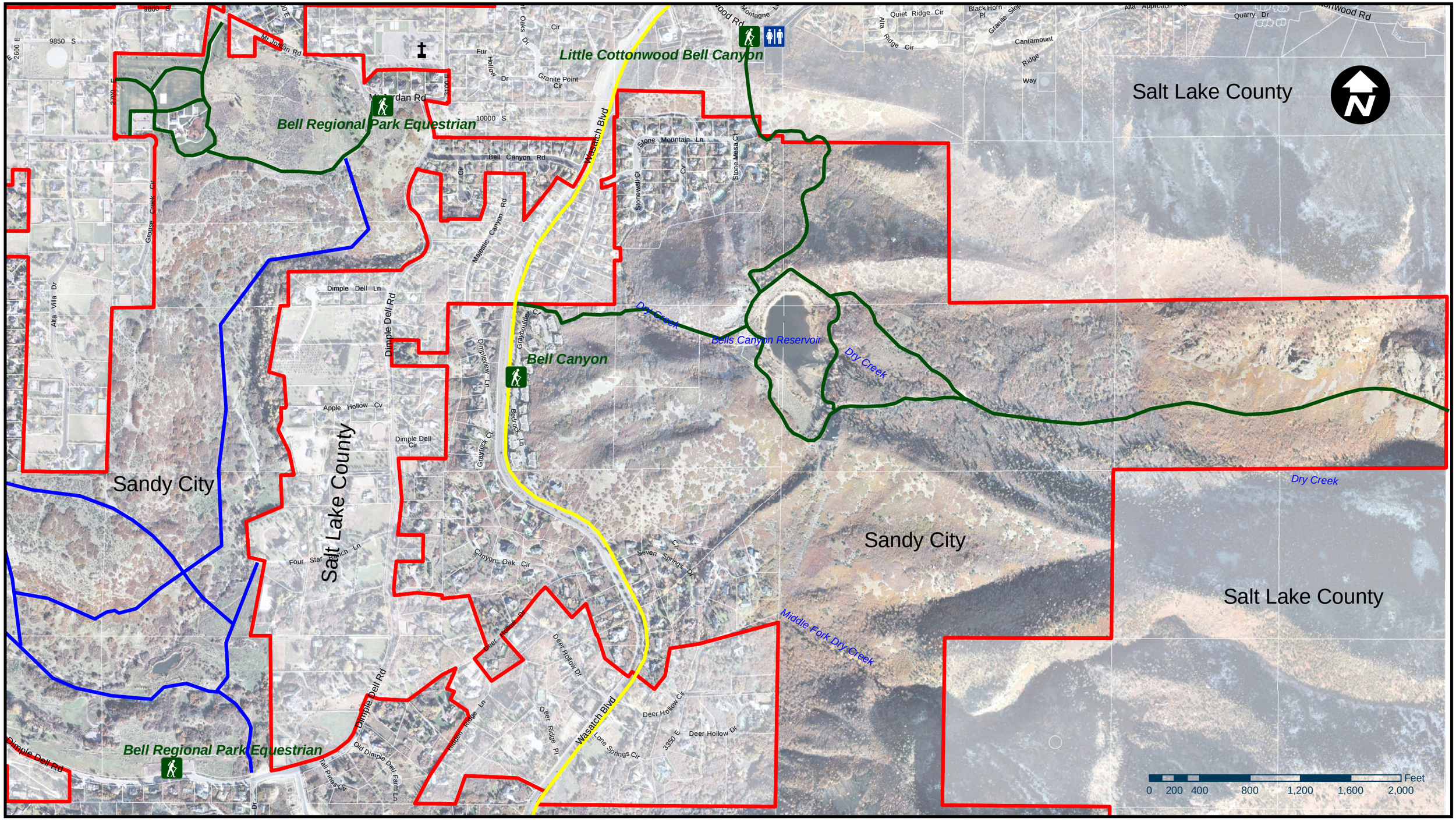
White lines indicate property lines

Shaded areas indicate properties outside Sandy City

PRODUCED BY THE COMMUNITY DEVELOPMENT DEPARTMENT :: RAY LINDENBURG, PLANNER

Bells Canyon Master Plan

Preservation Areas



Sandy
HEART OF THE WASATCH

LEGEND

Trails

- Existing 10 ft Multi-Use Path
- Existing Equestrian Path
- Existing Pedestrian Path
- Trailheads
- Sandy Borders

6 inch resolution aerial photography from 2007

White lines indicate property lines

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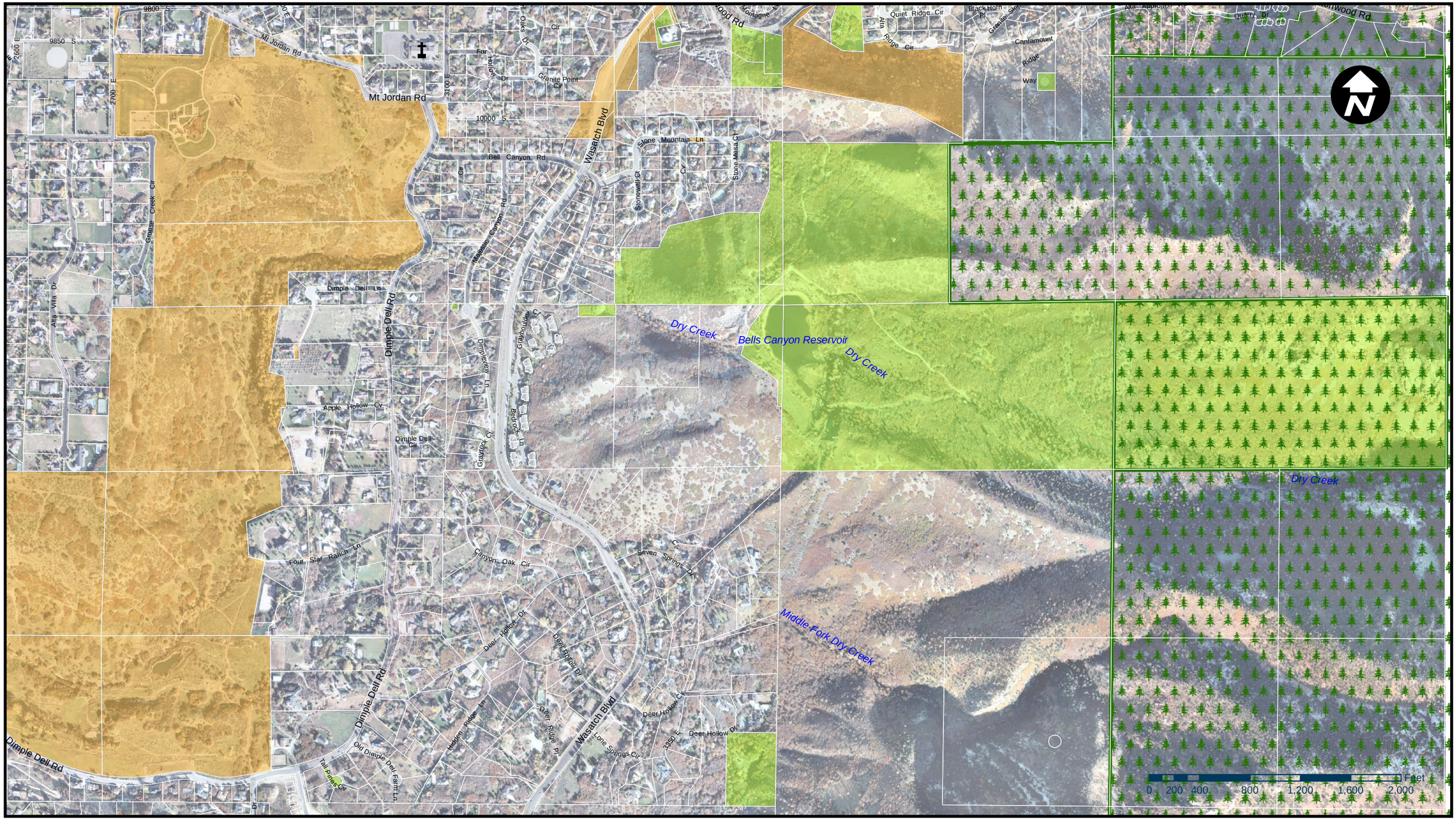
Bells Canyon Master Plan

Existing Amenities



LEGEND

- National Forest
- Owned by Salt Lake County
- Owned by Sandy City

6 inch resolution aerial photography from 2007

White lines indicate property lines

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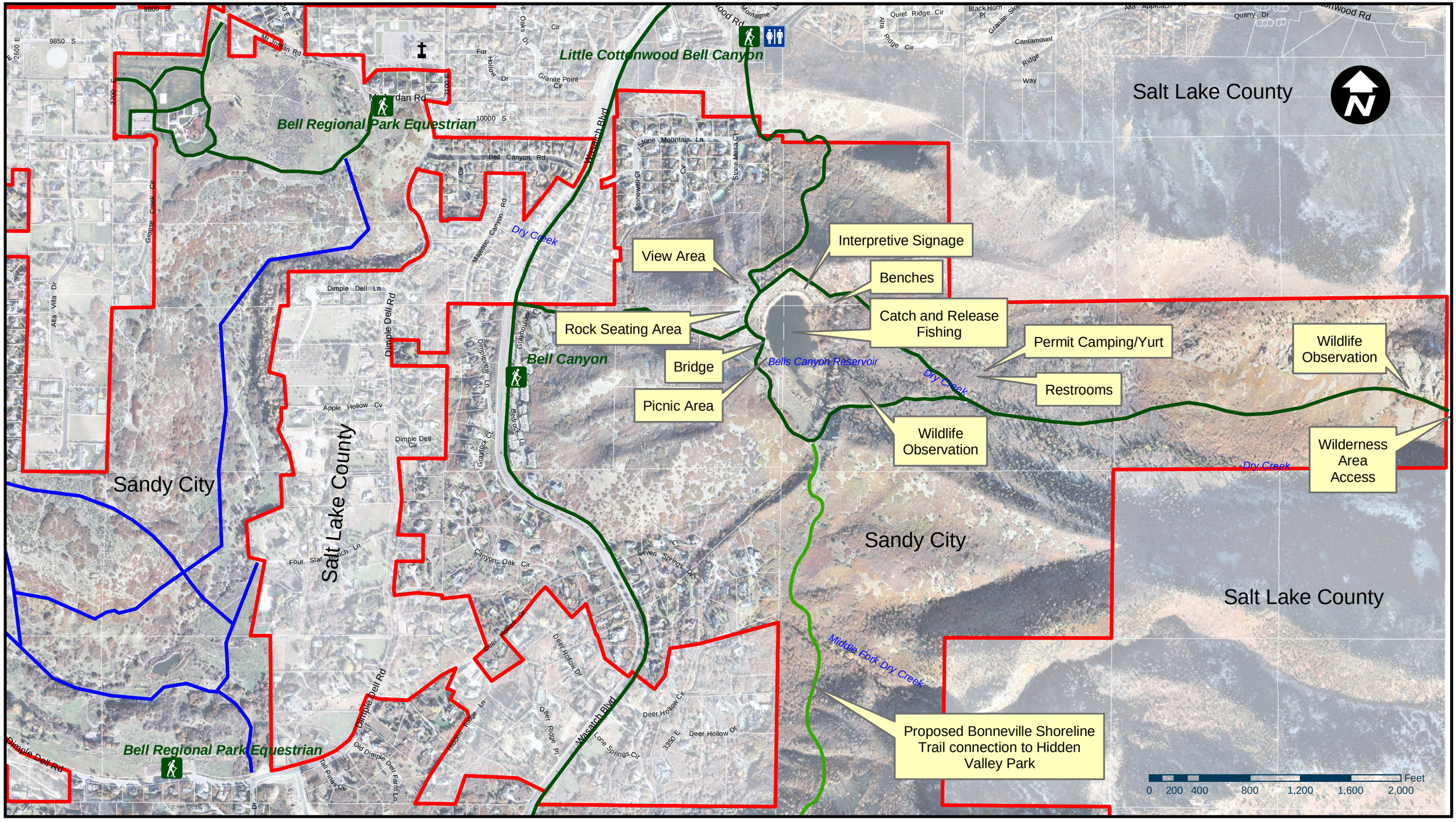
Sandy
HEART OF THE WASATCH

Bells Canyon Master Plan

Ownership Map



Sandy
HEART OF THE WASATCH

LEGEND

Trails

- Existing 10 ft Multi-Use Path
- Existing Equestrian Path
- Existing Pedestrian Path
- Trailheads
- Sandy Borders

6 inch resolution aerial photography from 2007

White lines indicate property lines

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Bells Canyon Master Plan

Proposed Amenities