



AMERICAN FORK CANYON VISION

EXISTING CONDITIONS SNAPSHOTS

NATURAL ENVIRONMENT

EXISTING CONDITIONS SNAPSHOT

NATURAL ENVIRONMENT OVERVIEW

American Fork Canyon hosts a rugged, beautiful, and diverse natural environment. Its special natural features include Timpanogos Cave, and the Mount Timpanogos and Lone Peak Wilderness Areas. In addition to these special features, the Canyon's natural environment boasts complex and beautiful landscapes and ecosystems. AFC is one of the most geologically diverse canyons in Utah, resulting in tremendous soil and terrain diversity as well. This natural landscape provides and sustains important vegetation, wildlife, and water resources, and offers large and beautiful open views.



Image credit of: David J. West

THE DETAILS

■ **Vegetation** – As you enter AFC and move through its lower stretches, the prominence of the Canyon's bare rock features is striking. While viewing Mount Timpanogos, the Canyon's dominant visual feature, the bands of bare rock rise high above the canyon floor. Many are surprised to learn that only 6% of the Canyon is "bare rock", and 94% of the Canyon is covered in vegetation. The dominant vegetation types are spruce and fir (29%); aspen (26%); and oakbrush (24%). This densely vegetated canyon provides quality habitat for many wildlife species. USFS sensitive plant species currently include Wheelers Angelica, Dainty Moonwort, Slender Moonwort, Wasatch Fitweed, Wasatch Draba, Rockcress Draba, Santaquin Draba, Garrets fleabane, Utah ivesia, Wasatch Jamesia, Wasatch pepperwort, Garrett's bladderpod, and Barneby Woody Aster. There is potential habitat for most of these sensitive species in the AFC area and several of these species have actually been discovered growing in the area. One vegetation challenge being experienced in AFC is noxious and invasive weeds, which now include scattered infestations of musk thistle, Canada thistle, Dalmation toadflax, spotted knapweed, dyer's woad, and leafy spurge. Just one single noxious knapweed plant can produce over 4.7 billion plants and over 5.1 trillion seeds in 10 years, which could cover 36,513 acres if left unchecked, choking out thousands of native plants.

INTERESTING HIGHLIGHTS

AFC is one of the most geologically diverse canyons in Utah

AFC has two congressionally designated Wilderness Areas with a total of 25,240 acres.

This is the largest single land use in the Canyon.

Some genetically pure populations of Bonneville Cutthroat trout reside in isolated reaches of the Canyon.

Historic records show rare wolverines have been found in the unique, rugged, alpine landscape of the Canyon.

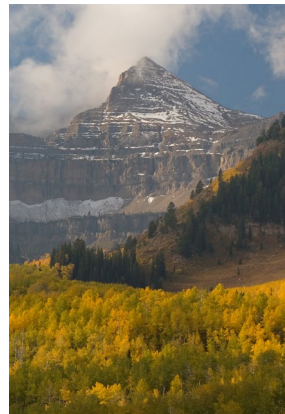
6% of the Canyon is "bare rock", and 94% of the Canyon is covered in vegetation.

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■ **Wildlife** – The Canyon is home to a variety of wildlife species including mountain goats, mule deer, and elk. Threatened, endangered, and sensitive species include bald eagles, western yellow-billed cuckoos, Townsend's big-eared bat, northern goshawk, flammulated owl, peregrine falcon, three-toed woodpecker, greater sage grouse, and Rocky Mountain bighorn sheep. Native fish species in the area include the Bonneville Cutthroat Trout, mottled sculpin and mountain sucker. Also found in the project area are brown trout and rainbow trout, as well as many other aquatic and terrestrial species.

■ **Water** – AFC provides municipal water to American Fork City, Pleasant Grove, Lehi, Alpine, Highland, Cedar Hills, the Bureau of Reclamation, and "other smaller entities." Its water is also used for irrigation, well water, stock water, and power and storage. Approximately 83,500 acre-feet of water comes from the Canyon's 200 miles of perennial and intermittent streams, which include the American Fork and the South Fork American Fork River, Silver Creek, Deer Creek, Grove Creek, Battle Creek, and Dry Creek. Water bodies include Tibble Fork Reservoir, Pittsburg Lake, Silver Lake, and Silver Lake Reservoir.



Images accessed from/credit of: goatysnews.wordpress.com, www.fs.usda.gov, Spenser Heaps/Daily Herald

The Canyon's many mining sites have adversely impacted water quality. In 2000, an excess of lead, zinc, and arsenic were found in Canyon waters at levels exceeding Utah clean water standards. The American Fork Canyon Home Rivers Project, a collaborative project led by Trout Unlimited and completed in 2006, worked to reclaim mines on private lands in an effort to improve surface waters for a population of Bonneville Cutthroat Trout. This effort removed mine wastes from the abandoned Pacific Mine, Blue Rock Mine, Scotchman No. 2 mine, and the Pacific Mill (#2). Over time, the USFS Plan's desired future condition is to ensure that all stretches of the American Fork River are removed from the State's list of impaired waters.

FUTURE OPPORTUNITIES

The Vision would like to develop new ideas and address several specific questions for the Natural Environment. Are the current land designations adequate, or should they be changed? How should the Forest Service's recommended wilderness areas be addressed? Would an overall federal designation for the Canyon (e.g., National Recreation Area or National Monument) better protect the environment? How important is it to carry out the Forest Plan's desire to acquire private lands in the project area? Are there areas where we should plan environmental restoration, protection, or improvement projects?



SOCIAL ENVIRONMENT

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SOCIAL ENVIRONMENT OVERVIEW

American Fork Canyon (AFC) has been a valuable resource as long as people have been on the lands. From Native Americans to the Mormon settlers, the canyon has provided food, water, minerals, and timber. The first record of settlement in AFC dates back to 1700 BCE. Native American tribes in the area used American Fork Cave as a base camp to hunt big horn sheep further up the Canyon. In July of 1870, the American Fork Mining District was formed. The period of 1872-1876 saw the most productive period in the mining district. During this period two cities grew up around the mining operations of the Canyon—Forest City and Deer Creek City—as well as the American Fork Railroad. In 1878 the American Fork Railroad discontinued, and by 1880 Forest City and Deer Creek City were deserted. By 1950, most mining efforts in the canyon were no longer in operation. Though early post-settlement uses were extraction-based, Canyon use has transitioned to passive and active recreation, and watershed protection.



Images credit of: Jason G Williams 2004

THE DETAILS

■ **User demographics**- Participants surveyed in American Fork Canyon's last survey varied from under 16 years old to over 70 years of age. Most recreationists were under 16 years old or between 30-39 years old. The majority of recreationists are traveling to the Canyon from within Utah County (55%) or from other Utah origins (34%). 12% of users were from other states. In the next 25 years, the population of Utah County is expected to reach one million, which is nearly double the current population. Recreation demand is expected to increase with proportionality.

RECREATION

■ **Importance of recreation** – According to a survey of Utah, Summit, and Wasatch counties, 54% of participants claimed that outdoor recreation was extremely important to them and their families. The majority of participants traveled over 25 miles for recreational activities.

■ **Available recreational activities** – There is something for everyone in AFC. There are over 40 known uses in the Canyon, these include hiking, cycling, horseback riding, camping, fishing, rock climbing, picnicking, sledding, hunting, OHV, bird watching, scenic driving, and many more. Importantly, the Canyon offers ATV access and accommodation, unlike nearby canyons. Because of the Canyon's large availability of uses, it is heavily used by all users types, which may result in users conflicts now or in the future.

INTERESTING HIGHLIGHTS

Since settlement, American Fork Canyon's main use has transitioned from resource extraction to recreation.

Utah County's population is expected to double in the next 25 years. This increased population will put additional pressure on the Canyon's resources and amenities.

There are over 40 known uses in the Canyon. These include anything from hiking, to scenic driving, to OHV use.

AFC relies on the efforts of volunteers--in fact, in 2014, the Uinta-Wasatch-Cache received the Chief's Award for the largest volunteer program in the National Forest System.

More than 120,000 people visit Timpanogos Cave NM each year.



SOCIAL ENVIRONMENT

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■ Timpanogos Cave National Monument

The Timpanogos Cave system became a National Monument in 1922 after the USFS and Timpanogos Cave Committee introduced thousands of people to the natural wonders after the cave discoveries in the late 19th century. In 1933, the cave system was transferred to the National Park Service. In recent years, visitor numbers have averaged approximately 112,000 annually. The Cave is accessed by a 1.5 mile trail that begins at the park's visitor center. Monument visitation is a primary use of the Canyon, and creates several specific challenges.



VOLUNTEER EFFORTS

■ In 2014, Uinta-Wasatch-Cache received the Chief's Award for the largest volunteer program in the National Forest System. The award is one of the highest honors in recognition of volunteer efforts to assist the Forest Service in accomplishing its mission. Volunteers assisted the Forest with trail maintenance and reconstruction, watershed restoration, heritage resource protection, backcountry trail patrols, visitor service contacts, wilderness monitoring, fire prevention activities, and wildlife habitat restoration, and watershed restoration through the Dedicated Hunter program.



Images accessed from: www.nationalparklover.com, www.tripadvisor.com, and www.nps.gov

SAFETY ISSUES

- In case of a fire, the narrow roads in the canyon limit egress from the Canyon (canyon users) and ingress to the Canyon (fire trucks, etc.). This represents a key safety hazard.
- USFS law enforcement is unable to keep up with needs in the Canyon. Utah County helps with law enforcement, but it's still not enough to meet demand.
- User conflicts can result in safety hazards simply because they are all using the same areas (ie: trails, narrow roadway of SR-92 for vehicles and bicyclists, etc.).
- Many users come unprepared into the Canyon. Most of the search and rescue efforts are a result of unpreparedness.

FUTURE OPPORTUNITIES

As recreation use increases, the Vision must consider where to accommodate additional users and visitors while protecting what's great about the Canyon. Among the questions the Vision must to address is whether Canyon users and Utah County residents want more caving, camping, hiking, biking, climbing, backcountry and resort skiing, motorized, horseback, or other types of recreation opportunity. What do we think future use of the Canyon should look like? How can we balance increasing demand among different uses in a canyon that's already near capacity?



BUILT ENVIRONMENT

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BUILT ENVIRONMENT OVERVIEW

The “built environment” connects the social and natural environments. It is our direct response to the desires of people to use American Fork Canyon (AFC) and enjoy its natural settings. The built environment of the Canyon includes its full system of roads, trails, bridges, dams, utilities and infrastructure, outhouses, buildings, cabins, parking lots, picnic areas, bolted climbing routes, and other features that provide access or amenity improvements. As use of the Canyon changes or increases, the built environment is adapted to both protect natural assets and accommodate desired uses. Importantly, the built environment of the Canyon doesn’t only contain public amenities and assets. The project area contains over 11,000 acres of private lands, which are typically under greater pressure for development than public lands.



Image accessed from: www.galleryhip.com

THE DETAILS

■ **Roads** - Approximately 1.2 million visitors in 450,000 vehicles visited American Fork Canyon in the 6 months it was open in 2014. That is more than half the visitation experienced at Zion National Park during the same 6 peak months. The Canyon has a variety of road types. This includes 53 miles of natural dirt, 36 miles of paved asphalt, and 10 miles of gravel. As one of the most popular scenic drives in the Uinta-Wasatch-Cache National Forest, the Alpine Loop Scenic Byway is known for outstanding fall color and access to various recreation spots within the canyon. This 20-mile route gains 3,000 feet in elevation, taking its riders through rich scenery and providing to access Lone Peak Wilderness Area, Cascade Springs, Sundance Resort, and Timpanogos Cave National Monument. The scenic byway is typically open for automobile travel from late May through late October. Recreation also occurs throughout the winter.

■ **Recreational facilities** – Within the general project area there are approximately 14 campgrounds, 9 picnic and day use areas, and 25 trailheads. 40% of the facilities provide parking, 32% include a restroom, and 17% provide water for visitors. The project area has 82 parking facilities. There are also 35 designated shoulder “pull-off” areas. In the active months of the year, about 4,000 cars pass through daily and these parking facilities are at full capacity. AFC has 150 miles of trails, including wilderness trails limited to horses and hikers, accessible interpretive trails, single track trails for hiking, mountain biking, equestrian, and motorcycle use, and other multi-use trails.

INTERESTING HIGHLIGHTS

Project area lands are primarily managed publicly, but contain over 11,000 acres of private land.

AFC accommodates about 300% more auto traffic than Zion Canyon traffic.

The Canyon’s parking and roadway facilities are now beyond capacity during open season.

AFC can presently be accessed only by car or bike.

Visitors report very high satisfaction with Canyon facility conditions, with only 1% reporting dissatisfaction.

BUILT ENVIRONMENT

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■ **Buildings** - Utah County GIS Division aerial photography shows that there are around 500 buildings in the project area. Over 400 of the 500 buildings are located in or adjacent to Sundance Resort. Of the remaining 100 buildings in the Canyon most are historic, along with a few private cabins.

■ **Historic properties** - A variety of historic development exists throughout the Canyon, including mining structures, ranger stations, and old residences. The Timpanogos Cave Historic District, which includes several historic buildings, is listed on the National Historic Register. Many of the structures in the Canyon were built by Franklin D. Roosevelt's Civilian Conservations Corps (CCC).

■ **Other Canyon Infrastructure** - AFC has several other types of infrastructure in the built environment. This infrastructure includes 4 reservoirs: Tibble Fork, Pittsburg Lake, Silver Lake, and Silver Lake Reservoir. In 2015, Tibble Fork will be undergoing a rehabilitation project from the USDA with an expected annual benefit of \$535,000 for water supply, recreation, and flood protection.



Images accessed from: www.outdoorsinutah.com, blog.udot.utah.gov, and www.nfara.org

Other noticeable infrastructure in the canyon includes a Rocky Mountain Power overhead line that is visible throughout the lower sections of the Canyon; a Centurylink and Utah County fiber-optic and analog lines that involve overhead and underground installations; and municipal water piping infrastructure that transports water from spring sources to cities in the valley. Sewer and water service are available at Sundance Resort, but not in the rest of the Canyon.

All other utilities are provided and managed on an individual onsite basis. All toilets in the Canyon are vault toilets, and all water is sourced from canyon springs or waterways; there are very few places to obtain safe, potable water in the Canyon. Fuel for heating buildings is delivered by truck and stored onsite and trash removal is individually contracted. Snowbird and Sundance both have major resort infrastructure in the project areas, including ski lifts, trails systems, and operations/maintenance access.

FUTURE OPPORTUNITIES

Presently, using the canyon essentially requires an automobile, and is limited by the automobiles that can be accommodated. Some questions for the Vision's built environment include: Would you like to see public transit (e.g., shuttles or buses) in the canyon to accommodate increasing use? Should the Canyon provide substantially more parking or roadway improvements? Is a transit connection to Snowbird or Sundance, along with resort recreation access, desirable? Where would we place specific projects – more campsites, picnic areas, trails, or other such things, to make an integrated recreation system work?



PLANNING FRAMEWORKS

EXISTING CONDITIONS SNAPSHOT

USFS Management Prescriptions:

■ **Wilderness** - Lone Peak and Mt. Timpanogos Wilderness Areas are managed to protect naturally functioning ecological processes. This management prescription also enhances opportunities for solitude and primitive recreation. The only development allowed within the Wilderness areas is the construction of primitive recreation trails and signs. Non-recreation development is limited to valid existing rights. Pit toilets may be constructed in order to accommodate high volumes of use.

■ **Scenic Byways** - Scenic byways are designated to protect outstanding recreational, educational, and scenic qualities. Development for recreation or interpretive purposes may be allowed if compatible with the scenic setting.

■ **Aquatic, Terrestrial, Hydrological Resources** - Emphasizes the protection, restoration, and maintenance of quality habitat and watershed conditions. Development is determined with watershed and habitat objectives in mind. Construction of motorized trails is determined based on the prescription emphasis and desired Recreation Opportunity Spectrum class; existing motorized recreation is constrained to designated routes and snowplay areas. Dispersed recreational facilities may be developed to focus use and reduce resource impacts to biophysical resources. Other development may be considered.

■ **Developed Recreation** - These areas include developed facilities such as campgrounds, boat docks, resorts, and water systems. Because of the large capital investment in these areas, site protection will be paramount. Wildland fire use is not allowed. Intensive vegetation management may be required to maintain desired conditions. Additional motorized trails may be constructed.

■ **Dispersed Recreation Areas** - Access within these areas is primarily through the use of non-motorized trails. Sights and sounds are minimal. Visitors will largely be managed off-site, with signs and regulations posted at area boundaries. The need for visitor self-reliance is high. Management visibility is low with backcountry ranger patrols focusing

on monitoring and maintaining natural conditions and processes.

■ **Forested Ecosystems** - Vegetation in forested areas is managed to enhance qualities of various resources, including wildlife habitat, watershed stability, vegetative diversity, and, in some circumstances, assisting with timber resource goals. Development is more constrained in the "Limited Development" management emphasis. Motorized trails may be constructed but focus is on maintaining and restoring vegetation. The "Vegetation Management" emphasis allows for more development, including motorized trails; recreational and other developments may be considered if requiring construction.

■ **Non-Forested Ecosystems** - Ecosystem health is emphasized as vegetation is maintained or restored. Motorized trails may be constructed.

■ **Wildland Urban Interface** - Reduction of fire risk is emphasized. This is an overlaying prescription; if two prescriptions conflict, the most restrictive prescription prevails. Motorized recreation is allowed on designated roads and motorized trails.

■ **Long-term Use or Occupancy** - includes four emphases: Mineral Development, Utility Corridor/Communication Sites, Administrative Sites, and Recreational Residences. For most of these emphases, development is allowed for the specific use (for the corridor, production site, etc.). Recreational use is typically limited or controlled.

■ **Undeveloped** - The primary emphasis is preservation of the qualities associated with undeveloped areas. Prescribed fire and wildland fire use may be employed where necessary to maintain or enhance the biophysical environment. Noxious weed treatments are allowed. No other vegetation management activities are allowed. No new recreation developments are allowed. Some motorized use and equipment may be allowed on existing trails. Additional facilities for motorized recreation would not be constructed.

National Park Service:

■ In its most recent General Management Plan (1993), The Monument is divided into four management zones, as follows:

Natural Zone – managed to conserve natural resources and processes while accommodating uses that do not adversely affect such values. 95% of the Monument is in the zone.

Historic Zone – managed to protect, preserve, and interpret significant cultural resources. Less than 1% of Monument is zoned historic.

Development Zone – provides necessary space for visitor and management facilities, including picnic areas, restrooms, buildings, parking areas, roadways, primary trails, and internal utilities such as the park water system. This zone occupies about 3% of the Monument.

Special Use Zone – lands within the Monument dedicated to utility corridors, including linear right-of-ways for CenturyLink telecommunications and Rocky Mountain Power electric transmission lines serving customers further up canyon. This zone is less than 1% of the Monument.

Other:

■ Highland and Alpine City general plans both mention the need to protect views of American Fork Canyon and serve as an effective gateway community to the recreation area.

■ Utah County zoning in AFC allows for construction of single family homes, 1 unit per 50 acres. It also allows construction and development activities in support of agricultural livestock, water development, and other similar things.

