



# City of Coeur d'Alene Parks Department



# 2012 Natural Open Space Management Plan



# ACKNOWLEDGEMENTS

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# ***Natural Open Space Master Plan Vision Statement***

***“The purpose of the Natural Open Space Management Plan is to set forth guidelines to acquire, protect, maintain, and manage significant natural landscapes for present and future generations. Natural Open Space enhances the urban environment and provides wildlife habitat while preserving valuable community assets and affording opportunities for public enjoyment through outdoor recreation.”***

## ***Introduction***

The Coeur d’Alene Natural Open Space Management Plan is a comprehensive document that provides an overall guide to managing the city’s natural open space parks and includes specific management actions designed to promote the stewardship and public enjoyment of these properties. The Management Plan consists of two sections. The main body of the plan discusses management standards common to all of our natural open spaces in five areas. These are habitat management, wildlife management, fire prevention and protection, site access and connectivity, and public facilities. After the main body of the management plan, appendixes for each site discuss the current conditions in each of these sites while identifying deficiencies and opportunities. Following each of the five areas, there are a series of recommended management actions to take advantage of those opportunities and to mitigate the identified deficiencies. This management plan should be updated at least once every ten years and site appendixes added as properties are acquired.

# ***Existing Natural Open Spaces***

## ***Tubbs Hill***

Tubbs Hill is a 120-acre natural area located between the downtown business district and Lake Coeur d'Alene and is adjacent to McEuen Field. The site includes well over a mile of lakeshore and is primarily used by hikers, joggers, swimmers, nature enthusiasts, and photographers. The site is accessed through the 3rd Street entrance and the East Tubbs Hill trailhead on 10<sup>th</sup> Street. Tubbs Hill contains over four miles of hiking trails, a half-mile of service roads and several sandy beaches popular with swimmers. The main loop trail is approximately two miles long and provides commanding views of downtown Coeur d'Alene and the lake. The hill's highest point reaches an elevation of 2,503 feet above sea level after climbing nearly 400 feet above the lake. The hill is heavily forested by a combination of Douglas-fir and ponderosa pine-dominated habitats. Tubbs Hill is Coeur d'Alene's best known and most heavily used open space.

## ***Fernan Lake Natural Area***

Acquired by the city between 2009 and 2011, the 54-acre Fernan Lake Natural Area is located on the south shore of Fernan Lake. The site consists of north-facing slopes on Potlatch Hill with elevations of up to four hundred feet above the lake. Portions of the hill include flat areas suitable for a trailhead parking lot and accessible trails. The remainder of the area is a mix of gradual and steep slopes suitable for hiking trails. The dominant vegetation is Douglas-fir and grand fir forest mixed with open ponderosa pine habitat at the top of the ridges with areas of western larch, and western redcedar, as well as a few western white pines. The Fernan Lake Natural Area has nearly a mile of shoreline on the lake encompassing two small bays as well as a seasonal stream. At this time, there is no public access to the site and therefore public use is almost nonexistent.

## ***Veterans' Centennial Park***

This 16-acre park is located off of Fernan Hill Road. Roughly the north half of the property is covered by a forest of dense Douglas-fir and grand fir with a component of ponderosa pine at the forest margins. The southern half of the property is mostly former pasture. The park is undeveloped and deed restrictions from the donor of the land prevent the site's use for active recreation. There is no water or electrical access on the property. This park is suitable for passive recreational use. The park is little known by the residents of Coeur d'Alene and is therefore lightly used by the public.

## ***Cherry Hill Park***

Cherry Hill Park is a 33-acre, mixed-use recreational facility owned by the city on the corner of 15<sup>th</sup> Street and Hazel Avenue next to the I-90 interchange. The park includes tennis courts, a BMX track, playground, a memorial plaza, and an off-leash dog park. The eastern 15 acres of the park is undeveloped forest land with an open hillside used for sledding in the winter and is included as one of the city's open-space properties. The forested section of this natural area has recently been thinned to reduce fuels and to improve the habitat. The natural area at Cherry Hill Park contains an eighteen-hole disc golf course that also doubles as a system of informal hiking trails. A potential use of this property is as a trailhead and access point if adjoining additional open space is acquired in the Best Hill-Cherry Hill area.

## ***Canfield Trails Natural Area***

This 24-acre mountainside preserve was acquired by the city in 2006. The property is located off of Mountain Vista Drive next to the Copper Ridge subdivision near the northeast corner of Coeur d'Alene. Most of the site is covered with open mature ponderosa pine forest. Nearly a mile and a half of hiking and mountain biking trails have been developed within the site. Access is limited and only on-street parking is available at the trailhead on Mountain Vista Drive. One privately owned parcel separates the Canfield Trails Open Space from federally-owned lands farther up the mountain. The potential exists to connect the city-owned trail to the 30-mile trail network owned by the Forest Service if an easement is negotiated with the adjacent property owner.

## ***Winton Park Natural Area***

Winton Park is a small 6 and a half acre park located near the intersection of Northwest Boulevard and US-95. Approximately half of this park has been left in a natural state and provides a scenic buffer between the busy highways and a residential neighborhood and elementary school. The natural area of this park consists of a mature open stand of ponderosa pines with an understory of native grasses with some invasive weeds. This small area contains a large picnic shelter, benches, and views of the Spokane River. Amenities in the developed portion of the park include a restroom building, horseshoe pits, ball field, and basketball courts.

## ***Local Resources***

Within the immediate vicinity of Coeur d'Alene, several public and private agencies manage properties to preserve the natural habitat while providing public access. Sites currently owned and managed by other agencies for the purpose of providing public access to natural areas in and near the city should be explored and the continuation of

these uses encouraged. Notable sites currently used for passive recreation in the area include:

- Cougar Bay Nature Preserve, owned and managed by The Nature Conservancy.
- The Coeur d'Alene Parkway, owned by the Idaho Transportation Department and managed by Idaho State Parks.
- Blackwell Island, owned and managed by the Bureau of Land Management.
- Mineral Ridge, owned and managed by the Bureau of Land Management.
- Coeur d'Alene National Forest Canfield Off-road Area, owned and managed by the U.S. Forest Service.
- Blue Creek Bay, owned and managed by the Bureau of Land Management.

# Natural Open Space Parks



	Natural Open Space Parks
	Interstate
	Highway 95
	City Limits

## ***Areas of Interest***

Based on public input gathered during the creation of the Coeur d'Alene Parks Master Plan, some of the main concerns expressed relating to natural open areas were access and protection of shoreline along our water bodies, protection of the viewshed relating primarily to hillsides, and the preservation of open prairie land west and north of the city. Opportunities to provide public access to natural areas through the use of existing publicly-owned land, including sites owned by the city and those owned by other agencies as well as transportation easements should be explored and implemented where feasible.

### **Waterfront**

The 2008 Parks Master Plan showed that the acquisition of waterfront public property was highly desired by the residents of Coeur d'Alene. The waterfront in Coeur d'Alene is defined by three water bodies, Lake Coeur d'Alene, Fernan Lake, and the Spokane River. Much of the shoreline of Lake Coeur d'Alene is in private ownership. The notable exception is Tubbs Hill. Opportunities may occur in the future for enhanced public access and natural open space in areas underdeveloped or not yet incorporated into Coeur d'Alene city limits. Current opportunities may exist for enhanced public access and natural open space near the Silver Beach area utilizing Idaho Department of Transportation property. Most of the southern shore of Fernan Lake is undeveloped including the city's Fernan Lake Natural Area. Possibilities exist to acquire additional waterfront conservation land in this area. Unlike the lakes, very little of the shoreline of the Spokane River is preserved as a natural area. While there may be the possibility of securing public facilities on the north bank of the river, particularly near the Riverstone development in conjunction with the creation of a trail to Johnson Mill River Park, most of the property in this area is a former industrial site and therefore heavily disturbed. Land values on this site are also extremely high making acquisition problematic. Additionally, although the city currently owns riverfront land between the city's Sewage Treatment Plant and the U.S. 95 bridge, this property is part of the education corridor and is planned for the expansion of the University of Idaho campus. The south shore of the Spokane River is relatively undeveloped and has much greater potential as a location for future public use as waterfront natural open space.

### **Foothills**

Four out of the six Coeur d'Alene-owned natural areas are found along the base of the foothills at the eastern edge of city. The city should pursue additional land acquisition in these areas and work with other agencies to create and maintain a comprehensive trail system connecting these open space areas. Canfield Mountain, Best Hill, Fernan Hill, and Potlatch Hill are all areas that have potential open space opportunities as the city expands to the east. Blackwell Hill and all the hills and land south of the Spokane River

have many areas of potential interest as well. It is important that land and trails be set aside in these areas as the city expands. The location of Coeur d'Alene is unique in the abundance of undeveloped natural resources available for passive outdoor recreation and could easily become one of the top destinations in the nation if access to these areas is available.

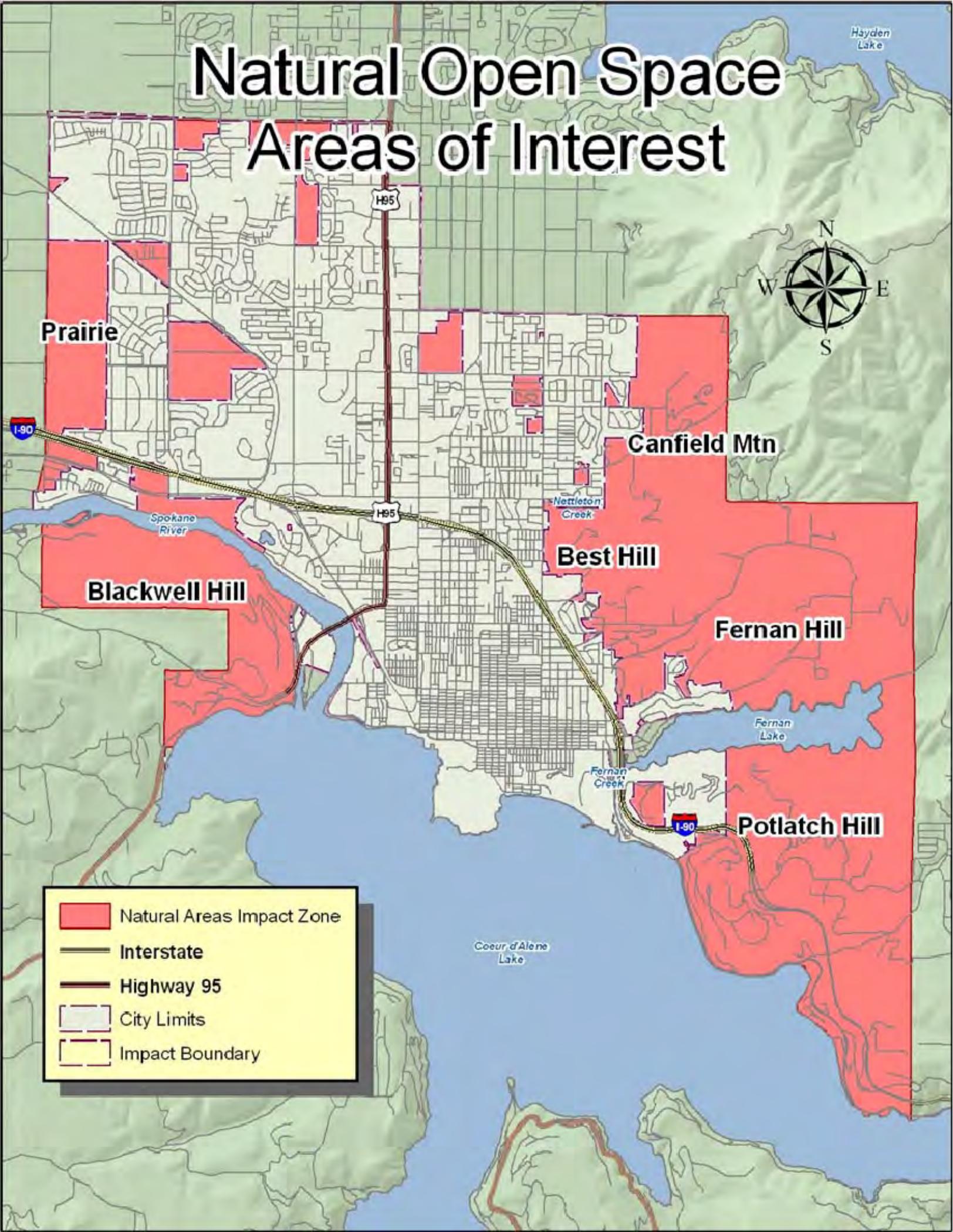
## **Viewsheds**

In addition to preserving the environment and providing resourced-based recreational opportunities, one of the most important functions of natural open space is to preserve the viewshed from Coeur d'Alene. Hillside development has been very controversial and in recent years the community has worked to prevent dense residential development in these areas. There are abundant opportunities to expand these natural areas and to connect them to each other and other protected lands. Protecting the views of Tubbs Hill, Canfield Mountain, Best Hill, and Potlatch Hill are important to the community. In addition to the hills east of the city, the view of Blackwell Hill south of the Spokane River is a valuable community resource and should be protected.

## **Prairie**

The Rathdrum Prairie east and northeast of the city is unprotected and, due to its suitability, is highly vulnerable to developmental pressures. This open space provides a break between Coeur d'Alene and its neighbor to the west Post Falls. Most of the remaining undeveloped prairie is currently used as farmland. This farmland provides expansive open views but otherwise has limited recreational uses at this time. An additional section of prairie is the 180-acre U.S. Forest Service tree farm near Atlas Road and Kathleen Avenue inside of the developed area of Coeur d'Alene. Currently the Prairie Trail connects the urbanized areas of Coeur d'Alene with large sections of undeveloped land. Parcels adjacent to or accessible from the Prairie Trail are recommended as additions to the city's open space areas. If parts of this prairie land were to be acquired as natural open space, it could be used for passive recreation activities that are not as suitable for sites in the forested hills.

# Natural Open Space Areas of Interest



- Natural Areas Impact Zone
- Interstate
- Highway 95
- City Limits
- Impact Boundary

# ***Open Space Management Standards***

This section discusses factors and conditions affecting habitat management and provides a guide to the best practices relating to maintenance of the natural plant communities in Coeur d'Alene's open spaces.

## ***Habitat Management***

### **Historical Conditions**

The historical conditions refer to the types and quality of the natural habitat on a site at the time of European settlement. In most cases, the condition at the time of settlement indicated the desired natural state of the site as the plants and plant communities that existed at that time were the ones that were best suited for the specific site in question.

Historical conditions also refer to events and factors that are responsible for changes from the natural habitat at the time of settlement to those that exist now on a given site. Each natural open space area managed and maintained by Coeur d'Alene should be researched to determine the historical conditions or likely historical conditions of the site and the events or factors that caused the habitat to change. Once the historical or likely historical conditions are determined, this information should be used to ascertain the desired conditions of the habitat on the site and help shape the management actions needed to achieve this goal. For example, western white pine was once one of the dominant plant species in large parts of the Coeur d'Alene area, but due to a combination of factors, is now extremely rare.

Factors and events responsible for changing the historical conditions of the natural habitat on Coeur d'Alene's natural open spaces include, but are not limited to, logging, clearing for agricultural purposes, suppression of natural wildfire, changes in the hydrology, introduction of non-native and invasive plant species, exposure to or introduction of harmful insects and diseases, and large-scale soil disturbance. These have resulted in denser forests with a higher percentage of shade-tolerant species, more insect and disease problems, and a higher risk of wildfire.

Establishing the historical conditions of Coeur d'Alene's natural open spaces is important so that the desired habitat conditions of these sites can be determined and goals and objectives can be set to best manage these properties.

## Habitat Classification

Habitat classifications in northern Idaho are largely a by-product of forest succession. Other factors determining the classification of habitats on a given site are the varying degrees of canopy closure, whether a forest is even-aged or not, and the species of shrubs, forbs, and grasses present in the understory. Most natural habitats in northern Idaho are mixed coniferous forest with different dominant tree species and different degrees of canopy closure depending on the site conditions and history.

Forest succession is the orderly sequence of plant communities gradually replacing each other. Because trees are such a dominant presence in forest ecosystems, we usually describe changes in forest succession relative to trees. The initial stage of forest succession consists of plants that are able to grow on barren areas and that are generally intolerant of shade. These plants seed in open areas following major disturbances and are called pioneer species.

Once these plant communities are established, they are gradually replaced by more shade-tolerant species until a climax community (one that can sustain itself) becomes established on the site. Climax species establish themselves and survive in a shaded understory persisting for long periods. Because of the prevalence of stand-replacement wildfires, climax communities in northern Idaho rarely last long if they become established at all. Historically, stand replacement wildfires occurred about every 150 to 200 years, with ground fires occurring every 5 to 60 years. Various plant communities that occur in succession before a climax forest is established are called seral stages.

For the purposes of this management plan, the following is a simplified explanation of the primary types of natural forest habitat in the Coeur d'Alene area. For a more detailed description of the natural habitats found in North Idaho refer to, [The Forest Habitats of Northern Idaho a Second Approximation](#). This publication was written by Stephen V Cooper, Kenneth E Neiman and David W Roberts for the U.S. Department of Agriculture, the U.S. Forest Service and the Intermountain Research Station and revised in April of 1991. This document (General Technical Report INT-236) describes 46 habitat types and 60 phases based on tree species and understory plants.

- *Ponderosa pine mixed coniferous forest.* This habitat is usually present in drier sites with full exposure to sunlight and is commonly found on south-facing slopes and in lower elevations. Ponderosa pine forest is drought tolerant and forests of this habitat type tend to be open with an understory dominated by grasses and other low growing vegetation. Ponderosa pine forest is dependent upon regularly occurring ground fires to maintain itself. If fire is excluded for an extended period of time, shade-tolerant tree species such as Douglas-fir and grand fir will take over the site and the understory will become much thicker and taller, leading to the creation of ladder fuels.

- *Douglas-fir and grand fir mixed coniferous forest.* This type of habitat is much more widely distributed in the Coeur d'Alene area than it was historically due to the suppression of wildfires and selective logging practices that favored shade-tolerant tree species. Firs are relatively shade-tolerant and dense stands of these trees are subjected to numerous insect and disease problems. Root rot in particular is a major concern, and areas where this is a widespread problem were probably not naturally suitable for fir-dominated habitat.
- *Western white pine mixed coniferous forest.* Until 1900 this was the most common forest habitat in northern Idaho and the Coeur d'Alene area. Due to a combination of factors, including extensive logging, suppression of wildfires, and the introduction of white pine blister rust, this habitat has become extremely rare in northern Idaho and no known examples of western white pine forest type exist in the immediate vicinity of Coeur d'Alene. In recent years blister rust-resistant trees have been developed and re-establishment of western white pine forest is a realistic goal that should be pursued on appropriate sites. These are generally, but not always, wetter sites on north facing slopes.
- *Western hemlock mixed coniferous forest.* Western hemlock is one of the most shade-tolerant, but least drought tolerant climax tree species growing in Idaho, and this habitat type tends to be in moist areas. Generally this habitat type is found at elevations of greater than 2500 feet and is rarely present on southward facing slopes.
- *Western redcedar mixed coniferous forest.* This habitat type is usually found in moist sites and is rarely found on southern slopes. Shade-tolerant western redcedar is often the dominant climax species found in well-watered and sheltered areas such as stream banks and wet gullies. This habitat type is extremely resistant to wildfires and the understory of this habitat is usually very open and often dominated by ferns and other moisture-loving plant species.
- Additional habitats not associated with coniferous forest include open meadows and marshland. Marshland is present where low lying land is flooded or otherwise too wet to support trees, and is usually dominated by marshland grasses, shrubs, and ferns. Meadows are open areas not usually flooded that are often maintained artificially by the intentional removal of trees and shrubs. Although not normally natural, meadows can have high value for wildlife and recreation opportunities.

Other major native coniferous tree species present in the area include lodgepole pine and western larch, both of which are extremely shade-intolerant and rarely become the dominant tree species in northern Idaho forests. Western larch is, however, an extremely desirable tree to have in mixed forests due to its having very few insect or disease problems and its longevity.

Engelmann spruce and subalpine fir are usually found in higher elevations and would not be a natural component of mixed coniferous forests in the immediate area of Coeur d'Alene. Pacific yew, black cottonwood and quaking aspen are other tree species commonly found in northern Idaho, but do not become dominant in natural habitats. Black cottonwood and quaking aspen are deciduous and are usually found along streams and shorelines as well as forest edges.

In addition to trees the other major component of natural habitats is the understory which consists of shrubs, forbs, and grasses. Within forests of the same dominant tree species, completely different understories may exist with a wide variety of plants based on soil conditions, moisture content, aspect, canopy closure, and other factors. Each of our natural open areas should be surveyed to determine the type, distribution, and condition of the natural habitats that are currently present on these sites.

## **Fire Ecology**

Fire is a normal component of a healthy ecosystem in northern Idaho. The regular occurrence of historical fire has enabled many plants to evolve and acquire unique adaptations to withstand and regenerate after a fire. Some pines have serotinous cones that release their seeds in response to heat from a fire and many species of trees, shrubs, and forbs depend on fire to clear out the overstory to enable them to receive the sunlight that allows them to grow. All of these, and many more important ecological functions, required some regular occurrence of fire.

Recognizing this ecological need, as well as the substantial damage to natural systems and threats to nearby inhabitants caused by severe fires intensified by years of fire suppression, the City of Coeur d'Alene must balance the habitat management goals in its natural open spaces with the inherent dangers posed by fire. Other methods of achieving these goals are available as management tools and should be pursued.

Past practices of wildland fire suppression in the western United States have resulted in the over-accumulation of timber and undergrowth in forest, rangeland, and wildland-urban interface habitats. This over-accumulation of biomass has caused a degradation of wildlife habitat, forest health, and biodiversity; has reduced water quality and quantity; has led to spiraling costs of fire suppression and elevated risks to both public and firefighters, and has increased the occurrence of catastrophic wildfires.

For several decades prescribed burning has been the preferred method for addressing fuel management. However it also results in some adverse impacts such as degradation of air quality, damage to property, and danger to people. To understand the role of fire on lands, it is important to understand the past. Historically Native Americans utilized fire as a tool for improving wildlife habitat for grazing animals (deer, elk, rabbits), maintaining productive areas for vegetation growth, to maintain travel routes, and to manage pests

(pine bark beetles are closely tied to fire). Burning by Native Americans took place for thousands of years, a practice that significantly increased the frequency of fire locally. These practices, in addition to the benefits listed above, greatly reduced much of the fuel load on the ground and significantly reduced the severity of fires in these areas.

Due to the suppression of natural as well as man-caused wildfires, fuel loads in many North Idaho forests are much heavier than they were historically. Mechanical methods of reducing fuel loads in natural areas, if implemented scientifically, can create conditions that mimic wildfires and create many of the beneficial effects of fire in wild lands without putting the public at risk.

Methods of creating conditions that mimic the introduction of fire on to our natural open spaces include:

- Selective tree removal
- Mowing
- Cut and scatter
- Cut and pile
- Chemical
- Burning of slash piles

## **Non-native Plants and Invasive Weed Control**

Non-native plants are defined as plants that were not present at the time of European settlement. Over the ensuing decades numerous plant species have been accidentally and sometimes purposely introduced to northern Idaho. Not all of these plant species are considered invasive. Invasive plants out-compete native plants and can eventually alter the natural habitat. Some characteristics of invasive plants include rapid reproduction, the ability to reproduce sexually and asexually, fast growth, adaptability, and extensive seed dispersal. Additionally, in many cases these plants no longer have to compete with other plants that co-evolved with them.

Control of invasive weeds can be accomplished by several different methods. Prevention is the most effective method of controlling invasive plants. It is much more difficult for exotic and invasive plants to colonize undisturbed natural habitats than other sites. Care should be used, not to unnecessarily disturb natural areas. In locations where the site is disturbed, such as during the construction of access roads or trails, the area affected should be regularly monitored to prevent the establishment of these species. Removing undesirable plants by hand is the most time-consuming and expensive method of control, but can be a practical means of eliminating potentially invasive plants if used before they become widespread on a site.

Changing the environmental conditions of the property can be a highly effective way to eliminate many noxious weeds from a given site. For example, allowing a closed-canopy forest to grow will rid sites of many shade-intolerant weeds such as spotted knapweed.

Application of prescribed fire to sites is an effective method of eliminating exotic hardwood trees. Mechanical methods can be as extensive as removing soil, or can be as simple as using frequent mowing to eliminate undesirable plants. Biological methods of noxious weed control are being developed and are usually used at a state or county agency level.

One of the most widespread and efficient methods of weed control is chemical control. Many products have been developed that have proven to be highly effective in eliminating specific plants and most, if not all, of these products have also proven to be safe for people and the environment if handled and used properly by trained applicators. The types of herbicides available for treatment are extensive and it is impossible to recommend one formulation. The Pacific Northwest Weed Control Handbook should be used to assist managers with herbicide selection. The handbook includes recommendations for the use of herbicides on specific weed problems. The handbook is available through the College of Agriculture at the University of Idaho, and is good for only one year as a new issue is printed annually.

Additional resources for the control and elimination of exotic and invasive weeds are available from the Kootenai County Extension Agent. On each of Coeur d'Alene's natural areas a survey should be conducted to locate and identify exotic and invasive plants, and a plan should be made to control and eventually eliminate these plants.

## **Insects and Disease Prevention**

In natural forest there are many insects and diseases. Most of these organisms are a natural part of the checks and balances of the ecosystem. A few insects and diseases cause problems when they interfere with the management goals of a site or forest. These problems have become greater with large-scale settlement of the area due to man-made changes that have upset the balance of these ecosystems.

These changes include fire exclusion, selective harvesting and the introduction of exotic pests. Fire exclusion has created old and stressed forests that are vulnerable to bark beetles and other pests. Selective harvesting has favored late successional species that are prone to budworm and root disease. Exotic pests such as larch case bearer and white pine blister rust have dramatically changed the composition of many of our forests.

There are many methods of reducing and limiting the damage caused by insects and diseases. It is important to know that diverse and uneven-aged forests are inherently more resistant to these pests. Leaving the best species on each site over the long term with adequate spacing is the best insurance against insect and disease problems. Maintaining healthy trees will make the site less attractive to insects and diseases. This can be accomplished by selective thinning, ensuring that the species of trees are appropriate for the site, and that trees are not stressed by man-made causes such as mechanical damage or soil compaction.

Natural controls include favoring natural enemies of pests, such as birds and predatory insects, as well as avoiding the creation of conditions that make it easy for insects, diseases and parasites to move around, such as leaving ladder fuels and closed canopies. Pruning the lower branches of western white pine is an easy and effective way to control blister rust. Planting disease-resistant seedlings will also limit the spread and damage caused by microorganisms. Direct control methods include physically destroying the pest by using means such as bark removal, slash burning, or cutting out blister rust cankers.

Because of the costs and the difficulties involved in their application, chemical controls are seldom economically viable and are not automatically warranted. Exceptions are sometimes made for high-value trees and occasionally for large-scale defoliators. Sanitation by removing high risk trees, such as those already stressed, and removing trees which are harboring breeding insects can be used to help control the spread of insects and diseases. It is always advisable not to leave large slash piles and excessive downed trees in the forest to prevent the spread of bark beetles. However, it is important that not all dead trees are removed as they are needed for wildlife habitat and nutrient value. The primary insect and disease problems in northern Idaho forests are divided into seven groups as follows.

- Bark beetles and wood borers. Bark beetles and wood borers that can be damaging to forests include the mountain pine beetle, western pine beetle, the pine engraver, the Douglas-fir beetle, the fir engraver, and roundhead and flathead wood borers.
- Defoliating Insects. Defoliating insects found in northern Idaho include spruce budworm, larch casebearer, and pine butterfly.
- Root Diseases. Root diseases of concern in northern Idaho areas include armillaria root disease and laminated root disease.
- Rust Diseases. The two rust diseases affecting northern Idaho forests are white pine blister rust and western gall rust.
- Stem Decays. The two stem decay diseases present in natural areas in northern Idaho are Indian paint fungus and ringscale fungus.
- Dwarf Mistletoe. Dwarf mistletoe is a widespread parasitic flowering plant that is usually host-species specific.
- Needle Diseases. Needle diseases in northern Idaho include larch needle cast, dipododia tip blight, and Swiss needle cast.

On each of Coeur d'Alene's natural areas a survey should be made to identify and locate any disease and insect problems so that a plan of action can be made on how to best protect these natural areas.

## **Desired Natural Habitat Conditions**

All of the City of Coeur d'Alene's natural open spaces are located in an area known as the Wildland-Urban Interface. The Wildland-Urban Interface, or WUI, is the area where houses meet or intermingle with undeveloped wildland vegetation. This makes the WUI a focal area for human-environmental conflicts such as wildland fires, habitat fragmentation, invasive species, and bio-diversity decline. For this and for other reasons including aesthetics and recreational opportunities, the creation of even-aged, same species forests susceptible to stand-replacement fires is inadvisable. Although there is evidence that even-aged forests dominated by a single tree species existed in the pre-settlement period in this area, other sites removed from the Wildland Urban Interface such as U.S. Forest Service and State of Idaho lands are more suitable for the maintenance of this type of habitat.

Within the City of Coeur d'Alene the desired condition of most of our natural open spaces should be a diverse, uneven-aged, open-canopy forest with the tree species most suitable to each specific location based on historical data and site conditions such as soil type, aspect (orientation of the site), moisture content, and elevation. These natural habitats should be free of invasive and exotic plants and be maintained in a manner that creates minimal problems with disease and insects.

There are many reasons to promote a diverse, uneven-aged, open-canopy forest habitat. This type of habitat is less susceptible to stand replacement fires which, in addition to being undesirable for aesthetic reasons, constitute a danger to people and private property. A diverse, uneven-aged, open-canopy forest is less susceptible to insect and disease problems, creates a more varied habitat for wildlife, and supports a greater variety of recreational opportunities. Maintaining a diverse forest with several dominant tree species will serve to prevent the spread of damaging insects and diseases as these forests are inherently more resistant to these pests, give greater opportunities for trees to grow in their ideal locations, and create a more environmentally-sound and attractive habitat. An uneven-aged forest will ensure that replacement trees are always available as the mature dominant trees decline. An open canopy will promote the growth of grasses and forbs by allowing sunlight to the forest floor in addition to promoting healthier and larger trees by giving them room to grow without directly competing with each other. An open canopy forest will also mitigate some of the danger of wildfire by providing less opportunity for wildfires to crown.

Additional considerations relating to the desired natural conditions include maintaining snags to provide food and shelter for wildlife, preserving large organic debris in the forest subjected to fire safety limitations to provide shelter for small wildlife, nutrient

recycling in the forest, water quality protection in streams and shorelines, and the protection of rock habitat where it exists, as this rare feature provides an unique habitat and promotes diversity.

In all of our natural open areas, steps need to be taken to prevent the establishment and spread of exotic and invasive plant species and actions should be taken to eliminate existing populations of these plants. Steps should be taken to promote the growth of historically dominant tree species in our natural areas that have largely disappeared or greatly diminished due to changes we have made to the environment. For example western white pine was likely present on all of our natural areas and should be re-established in locations where there is historical evidence that it existed. Western larch, western redcedar and western hemlock have all become less abundant due to selective logging and should be promoted in our natural open areas. Grand fir and Douglas-fir have become much more dominant and widespread than they were historically and, in areas with root rot infestations, they should be replaced by other species as continuing root rot problems would indicate that these trees did not grow at these locations in their present densities. A wide variety of native understory plants should be encouraged to grow in our forests to provide plant species diversity, create and maintain healthy soil conditions, minimize runoff and erosion, and for maximum wildlife benefit.

The maintenance of an open canopy in our natural areas will aid in efforts to create and sustain a healthy and diverse understory. If endangered or threatened plant species are identified at any of our natural open areas, special actions should be taken to protect and promote the growth of these plants. These actions could include limiting access to the immediate area, manipulating the environment to create and maintain ideal growing conditions for these plants, and introducing these species to adjacent and suitable locations within our natural open areas. If our natural open areas contain unique or special plants or trees, such as unusually large or attractive specimens or trees with a historic value, additional actions could and should be taken to protect these individuals.

The composition and health of our natural areas can be greatly affected by natural disasters and episodes of extreme weather. In the event that one or more of the city's natural areas were to be radically altered by a disaster such as a catastrophic wildfire, major insect or disease outbreak, wind storm, ice storm, or flood, the city will seek out and obtain the best available information from a variety of sources in the land management field on how to best restore the affected sites. Using this information the city will make every effort to recreate a diverse, uneven-aged, open-canopy coniferous forest on the affected site.

In summary, based on the historical records and the existing conditions on any given site in Coeur d'Alene's natural areas, the habitat should be managed in such a way as to create and maintain a healthy native plant community appropriate to that site. This should be done by emphasizing species diversity, wildlife habitat, overall tree health and

wildfire safety, while maintaining these forests as insect and disease-free as possible while controlling and eliminating noxious invasive weeds.

# ***Wildlife Management***

## **Managing Habitat for Wildlife**

At this time, the natural open spaces of Coeur d'Alene are in close proximity to human habitation and often busy roads or highways. Since wildlife does not recognize boundaries, there is a natural flow back and forth from the natural areas to the suburban areas. Many of these new suburbs have been built across traditional game trails, on wild animal display and courting grounds, or in favorite feeding areas. As long as these habitats provide necessities (food, water, shelter and space) animals may continue to inhabit them.

It is the goal to maintain the natural spaces as true natural areas providing the needs of native animals as well as plants. Diversity of plant species is essential to animal life and should be maintained.

**Food-** Deer are the primary browsers near inhabited areas but occasionally moose or elk will frequent some of the natural areas. Each has its preferred food source. Deer browse on tips of woody trees and shrubs and broad-leaved forbs. Moose covet the same browse, but elk are grazers and prefer herbaceous plants such as grasses and forbs. Bird species benefit by a variety of plants that provide seeds, berries, nectar and those which are hosts to insects. Removing a large percentage of any type of flora may have an impact on animal species.

**Water-** Water is not usually an issue in our area due to the numerous lakes, springs and small creeks. However, a very dry season can impact small animals and especially amphibians.

**Shelter-** Removal of understory plants can have a severe impact on availability of two types of cover. Thermal cover is very dense and provides animals with protection from the elements. Security cover protects animals from predators and provides travel corridors, areas for resting, bedding, feeding, and rearing young. A mixture of these components provides the essential requirements for animal species.

**Space-** Many of the natural open spaces will not be large enough to provide a territory for some larger animal species. They may only serve as a corridor, or a resting or feeding area. Natural open spaces which are contiguous with other natural areas will likely be more attractive to many animal species.

There are many management decisions and practices which are not compatible with maintaining lands suitable for all species of wildlife. These must be balanced with the goals for each open space.

For example: Leaving snags and downed trees will provide shelter and food for wildlife while fire prevention practices might advocate for removal of all fuels. Understory shrubs such as serviceberry and ninebark provide food and host many insect species which, in turn, provide food for wildlife. These and ocean spray are usually removed by fire prevention practices.

## **Exotic and Feral Animals**

Exotic animals are animal species intentionally or accidentally introduced into the natural environment by humans. Some exotic animal species have spread from their original habitat by taking advantage of human migrations and movements (such as various insects, mollusks, and rodents).

Humans have also intentionally introduced new species for a variety of reasons including sport hunting, collecting, and in attempting to control other invasive animals. Many aquatic animal species have been accidentally released into the wild with devastating effects (including Asian carp and lamprey eels). Feral animals are domestic species that have escaped into the environment and reverted to wild animals. Well known examples of feral animals in North America include domestic cats, wild hogs, and mustangs. Exotic and feral animals can become a problem when they disrupt the ecosystem where they were introduced by changing the natural habitat or out-competing native species.

At the present, known exotic and feral animal species that pose significant problems to the natural habitat in North Idaho are limited primarily to aquatic species. The state of Idaho has developed a comprehensive strategy for preventing the spread of exotic aquatic species and containing or controlling established populations detailed in the Idaho Aquatic Nuisance Species Plan, a supplement to Idaho's Strategic Action Plan for Invasive Species. This plan was written by the Idaho Invasive Species Councils Technical Committee in 2007 and is available online at the Idaho Department of Fish and Game's website. In order to prevent the establishment or spread of exotic and feral animals, the City of Coeur d'Alene should support the state of Idaho's efforts and monitor our natural areas to detect, report, and develop an action plan to deal with any exotic or feral animals discovered in these natural areas.

## **Wildlife Protection**

As one aspect of preserving the natural resources of the city's open areas, policies should be implemented that serve to protect the wildlife on our properties. Northern Idaho has extensive, forested areas both publicly and privately owned that are suitable and used for hunting. In itself, hunting is a valuable management tool and is commonly

accepted as a method of maintaining healthy populations of many animal species. As the city's publicly-owned, natural areas are located in or on the edge of urbanized development and are intended for passive recreational use year around, hunting in these areas is neither desirable nor feasible. As a matter of policy, all of our natural open areas should be considered wildlife sanctuaries.

# ***Fire Prevention and Protection***

## **Background**

Wildfire has historically been a natural component of the environment in North Idaho forests. With the settlement of the region, suppression of wildfires became standard, resulting in the modification of the natural habitat. Specifically, the lack of regular fire resulted in an over-accumulation of fuels in our forests creating conditions that increased the long-term danger and severity of wildfires when they occurred. The negative consequences of uncontrolled wildfires are extensive. Uncontrolled wildfires constitute a serious danger to people and property as well as being detrimental to the ecology, aesthetics, and wildlife of the affected area. Over the ensuing decades land managers have used prescribed fire to reduce fuel loads and return the forests to a more natural state. The practice of prescribed burning in addition to the many benefits it provides also contains serious risks and detrimental side effects that limit the practicality of using this method in or near urbanized areas. The inherent negative aspects of using prescribed burning in or near urban areas include

- Liability coverage
- Cost and budgeting
- Smoke management and associated health concerns
- Negative effects on water quality
- Public approval of burning methods
- The need for perfect weather conditions
- Extensive site preparation required
- Aesthetics
- Protection of critical wildlife habitat
- Controlling access to the burn site for extended periods
- Providing resources to protect adjacent properties
- Federal and state restrictions
- The physical safety of the public and fire crew
- Potential loss of future federal grant money

In conjunction with prescribed fire, alternative methods of mitigating the danger of serious wildfire by reducing and modifying the fuels in our forest habitat have been developed. These alternative methods are much safer and have the added benefit of restoring the habitat of these sites to a more natural condition. In order to protect the public and our natural open spaces, it is imperative that uncontrolled wildfires be prevented and, if they do occur, that they be suppressed as soon as possible. To accomplish this it will be necessary complete a series of management actions on each of our natural open spaces based on the unique characteristics of each property and a risk assessment created by the Coeur d'Alene Fire Department.

## **Fire Hazard Severity Rating**

Each of the natural open areas owned by the City of Coeur d'Alene and managed by the Coeur d'Alene Parks Department will be evaluated by the Coeur d'Alene Fire Department using a fire hazard severity form. This evaluation will assign a rating to each site based on a number of factors including,

- The design and layout of the road system and accessibility to the site
- Fire department response time to the site
- Multiple entrances and exits accesses or the lack of such
- Vegetation on the site as it relates to fuel types and defensible space
- The topography of the site and adjacent properties
- Materials used, including roofing in buildings and structures both in and near the site
- Availability of water sources
- Location of utilities

Based on the findings of this evaluation each natural open area will be designated as a moderate, high, or extreme fire hazard. Deficiencies identified in this evaluation that can be mitigated by the city will be addressed for each of our natural open areas.

## **Wildland Urban Interface (WUI)**

The wildland urban interface is the place where undeveloped natural areas meet and co-mingle with developed areas containing infrastructure and residences. There are several definitions of the wildland urban interface based on geography, sociopolitical conflicts, and natural resource management. For the purposes of the Fire Prevention and Protection section of this management plan, the interface is defined from a wildland fire perspective. On an individual homeowner scale the wildland urban interface is an area where human-made infrastructure is in or adjacent to areas prone to wildfire. On a community scale the interface is an area where conditions can make a community vulnerable to a wildfire disaster. Most of the natural open areas owned and managed by the City of Coeur d'Alene are located in designated wildland urban interfaces. These wildland urban interfaces have been identified by the Coeur d'Alene Fire Department.

## **Access**

For the safety of the public and to protect public and private property in and around our natural open areas it is important that adequate access be provided. Access is critical to allow firefighting personnel and equipment to quickly and efficiently deploy to the site so that efforts to contain and extinguish any wildfire can be made with the least delay possible. Access is also critical for the delivery of emergency medical services and to swiftly and safely transport victims from the site. Early detection of wildfires is important and made more likely by having suitable means of accessing the site which in turn

makes regular monitoring possible. Factors critical to fire fighting efforts related to access include providing for access of fire fighting apparatus, turnouts, turn arounds, staging areas, drafting sites, and access from both the land and lakeshore. In order to be able to evacuate the public and allow for the quick removal of firefighting personnel if conditions warrant, the creation and maintenance of safe exit routes is extremely important. The maintenance of defensible space is critical at all locations used for access into our natural areas. At our large natural open areas, multiple points of access should be available for emergency personnel, each with adequate defensible space for emergency equipment to operate.

### **Public Roads**

Access to our natural areas is dependent on a large extent to the limitations of the local public road system. This system has an impact on the response time of emergency personnel, the ability to evacuate people from the site and the area around it, and location of possible access points into the natural areas. While the limitations of the local public road system are out of the scope of the management plan for our natural areas, deficiencies need to be identified and possible solutions recommended. Possible deficiencies that have been identified include narrow roads, steep grades, only one entrance road, poor surface condition, no turn-around room on dead ends, and roads vulnerable to being closed due to wildfire.

### **Park Roads**

Access roads into our natural open spaces need to be designed and built to standards that allow for their use by fire fighters so that they can gain access to, contain and suppress wildfires. At developed facilities in our natural open areas such as trailheads and picnic areas, public access roads and parking areas should be designed and built to support the safe operation of all firefighting equipment including engine trucks. This will necessitate that the surface of these roads be stabilized and meet stringent slope requirements. Access roads into developed facilities must have adequate space for large equipment to turn around in and/or an alternative means of exiting the site. Access points at developed sites need to have defensible space according to the standards determined by the fire hazard rating assigned to that site. Generally, public access roads should have fifty feet of defensible space on each side of the roadway. Service roads built into the interior of our natural open areas should be built and maintained to allow for the use of fire department brush trucks. These roadways should have a surface that allows heavy four wheel drive vehicles to safely operate on them and should avoid steep slopes. The terminus of these roads needs to have adequate level space for firefighting equipment to safely and quickly turn around. Whenever possible these service roads should have more than one entrance point to allow for faster response and to provide additional means of exiting the property. The sides of these service roads need to be kept free of heavy accumulations of flammable fuels. Generally thirty feet on each side of the roadway should be thinned to create defensible space unless conditions warrant additional clearing. At the terminus of these service roads additional defensible space should be created and maintained.

## **Trails**

Trails created in our natural areas should be built to allow for use by emergency personnel. Wherever possible, trails should be built free of constrictions, slopes, and obstructions that would prevent the occasional use of ATVs by emergency responders. Trails can be used as fire lines by hand crews and to evacuate injured persons. A comprehensive trail system can be used to quickly access small fires in the interior of our natural open spaces. At any locations where trails either dead end or become inaccessible for ATV use, adequate space to safely turn the ATV around should be provided. Sections of trails that cannot be made accessible for occasional ATV use, mostly because of the restrictions imposed by the terrain of the site, need to be identified and clearly communicated to the fire department and other emergency responders.

## **Vegetation Management**

The two main reasons to manage vegetation in our natural open spaces from a fire prevention and protection stand point is to reduce the fuels present on the site and to create the defensible space needed to effectively fight wildfires. As the use of prescribed fire has become increasingly difficult in the wildland urban interface of Coeur d'Alene, alternative methods of managing the habitat will be preferred and recommended. Modification of the natural habitat to mimic the effects of low intensity fire has the additional benefit of reducing fuels and creating defensible space. This is often referred to as FireSmart. Methods of habitat modification used in FireSmart include selective removal, mowing, cut and scatter, cut and pile, and chemical application. To be effective, it is important that, once the initial clearing is completed, regular maintenance of the treated area take place. It is much easier and effective to maintain an area treated with FireSmart than to have to retreat the same area in a few years. In the future, the reintroduction of fire may become an option as a method of vegetative management to reduce fuels and to maintain defensible space in our natural areas with the approval of the Coeur d'Alene Fire Department based on a site-specific risk assessment founded on access and water supply.

### **Managing the Fuels in the Forest**

A key method of reducing the likelihood and severity of wildfires is to limit the amount of vegetative fuels that are available and to change the structure of those fuels. The amount of fuel available can be reduced through the use of selective removal of dead, diseased, and highly flammable trees and tall shrubs. Ladder fuels which allow the fire to reach the crown of the forest can be reduced by pruning branches, removing piles of dead brush, and favoring low growing grasses and forbs over more flammable shrubs. By maintaining an open canopy forest, there is less chance for a crown fire to develop. Removing large dead wood and cutting and scattering small debris will help to lower the intensity of any wildfire on the site. Fuel reduction through vegetative management and fuel removal needs to be balanced with the other management goals of each natural open area.

## **Defensible Space**

In order to effectively control and suppress wildfires, it is important that defensible space be maintained in sensitive areas. Defensible space is the area that is maintained with reduced fuel loads, open canopies, and plants that tend to produce low-intensity ground fires as opposed to overgrown forests with high fuel loads and ladder fuels which are more likely to allow the creation of high-intensity, destructive wildfires. Defensible space is critical at all locations and is likely to be used by firefighting personnel for access, to create fire lines, and to protect buildings and structures both inside and adjacent to our natural open areas. The size and location of required defensible spaces will be based on the specific fire hazard at each natural open space.

## **Topography**

Topography directly affects the behavior of wildfire. The topography of our natural open areas can severely impact site access, available resources, and response time. The most important aspects of topography in relation to fire prevention and protection are the steepness of the site as fire moves rapidly upslope, the orientation of the site in regards to the prevailing wind direction and, and the fragmentation of the natural habitat through transverse gullies to the primary slope. The topography of our natural open areas can present challenges to firefighting efforts. Although the topography of these sites cannot be changed, the special challenges they create need to be identified and mitigated.

## **Water Sources**

Water is the single-most important tool used to contain and suppress wildfires. The lack of accessible water in our natural open areas can severely handicap efforts to fight wildfires. At all of our natural open areas, every available source of water should be identified. Water sources include municipal water available from hydrants or stand pipes specifically designed to be used in fire suppression, natural water bodies that can be accessed by using fire boats or pumps, and private water systems and storage facilities. Ideally, a municipal water supply should be available at each primary access point in our natural open areas. Additionally, municipal water supplies should be located at intervals of 1000 feet on the perimeter of our natural open areas where they are adjacent to residential developments. Local water storage capacity needs to be identified at each site and a determination made if the existing capacity is adequate based on the fire hazard severity evaluation. Efforts to increase the water capacity and/or the availability of municipal water should be made if deficiencies are identified. The Coeur d'Alene Fire Department is currently in the process of rehabilitating a fire boat. This asset will be an important part of the fire prevention and protection plan at our waterfront natural open areas. A concept that should be studied is the installation of dry fire hydrants at some of our natural areas. This concept can take advantage of our natural water bodies to create an additional unlimited source of water at otherwise difficult to reach locations.

## **Buildings and Structures**

The materials used in the construction of buildings and structures can greatly affect the vulnerability of these facilities to wildfire. Any buildings and structures located in our natural open areas need to be constructed using fire-resistant materials including class A fire-rated roofing material. The greatest threat to buildings comes from windblown embers landing on roofs, the placement of combustible materials next to windows, and the accumulation of fuels next to and near the building. Buildings in natural open areas need to have defensible space around them. As buildings represent a significant investment, a water source adequate for use to fight wildfires should be present in close proximity.

## **Incompatible Uses**

Due to the danger posed by wildfire in our natural areas, certain activities are incompatible with the management goals related to fire prevention and protection. Activities determined to increase the likelihood of wildfire should be regulated and, based on the fire risk assessment conducted by the Coeur d'Alene Fire Department, prohibited whenever necessary. Identified incompatible activities include:

- The use of fireworks
- Camping
- Open fires
- The use of grills for cooking
- Motorized recreational vehicle use

In addition to restricting these uses, the Parks Department should plan adjacent facilities to support compatible uses.

## **Public Safety**

In the event of a wildfire or other emergency, actions need to be taken to protect people and property both on and off of the site. For the purpose of fire suppression, it is imperative that non-emergency personnel be evacuated from the site and steps taken to prevent the entry or re-entry of unauthorized persons. Under the direction of the Coeur d'Alene Fire Department, a unified command with Coeur d'Alene Police Department and the Parks Department will be established. Under this command, designated public officials will inspect the site, locate and contact all public users, and direct them to safety. Once the site has been cleared of the public, all primary entrance points will be monitored until the emergency is declared to be over to prevent unauthorized entry. In order to effectively and efficiently locate the public and evacuate them from the site, it is important that properly-sited access roads and trails be available. Ideally these roads and trails need to include loops and be connected with multiple means of exiting the

property to reduce or eliminate the possibility of entrapment. In the event that a wildfire threatens people and property off of the site, the Coeur d'Alene Fire Department will provide direction and determine the actions necessary to mitigate the danger. During periods of extreme fire weather as defined by the Idaho Department of Lands, an assessment should be made by the Coeur d'Alene Fire Department on whether or not to temporarily close specific sites to public use.

## **Interagency Cooperation**

Under the Incident Command System, the Coeur d'Alene Fire Department will work with other agencies through a series of mutual assistance agreements to contain, suppress, and extinguish wildfires in the city's natural open areas. Mutual assistance agreements are in place with a number of state and local agencies and will be continued in the future.

## ***Access and Connectivity***

In order to promote the enjoyment of Coeur d'Alene's natural open areas, it is important that public access to these properties be provided. During the creation of the city's 2008 Parks and Master Plan, 95% of the respondents to the public involvement surveys indicated that they felt that natural areas are important. In line with their demonstrated interest in natural areas and trail-related activities, residents would like to see more natural areas and natural area-related facilities and an enhanced trail network. Public outreach has also demonstrated that more waterfront access and opportunities are wanted by the public.

### **Minimum Public Access**

Minimum public access to all city-owned natural open areas should include a comprehensive trail system connecting significant points of interest, including scenic viewpoints, outstanding natural features, and waterfront access (if applicable), with a point or points of public access.

Any trail system will be built and maintained to the standards laid out in the trails and maintenance sections of this document. At a minimum, on-street parking must be provided near the trail entrance of any natural open space to provide access for residents and visitors who do not live within walking distance of city-owned natural areas.

Provisions for residents and visitors with physical disabilities to access city owned natural open areas will be considered and provided wherever practical. In order to encourage the public use and enjoyment of Coeur d'Alene's natural open areas, all city-owned natural areas should be identified with clear signage at the entrance or entrances to these properties. Ideally, access to the city's natural areas should be provided at multiple locations to disperse public use of the facility and to better connect the site to neighborhoods, parks, schools, other public facilities, and alternate transportation routes such as bikeways.

### **Access for Public Safety**

In order to protect the public, access should be provided to city-owned natural areas for the purpose of fire control, medical emergencies, law enforcement, and maintenance of facilities. This access should include areas to park emergency vehicles with adequate room for emergency personnel to perform their duties. Any maintained trails on the property should be free of obstructions and hazards to emergency personnel accessing the area on foot including emergency medical teams and fire fighters carrying equipment. Where possible, provisions should be made to construct or route the trail

system in a way that would not block or prevent ATV use for emergencies. This can be accomplished by locating the trails with adequate clearance between obstructions, building any bridges wide enough, and avoiding the use of steps or extremely steep grades on these trails that would impede the use of ATVs in emergency situations. Ideally multiple access points to evacuate injured people or to control and extinguish fire should be provided, especially on large sites. Existing and future service roads on the city's natural areas should be improved and maintained to a standard that allows fire equipment and other emergency vehicles to safely use them. Wherever practical, off-street areas should be made available for emergency services to use so as not to block public roads and to provide a safe staging area. These areas could include public parking lots on the site, utility easements, and adjacent private property with the consent of the land owner.

## **Trailheads**

In order to provide access to the city's natural open spaces for a wide range of our citizens and visitors, trailheads should be included on these sites where possible. Consideration should be given to identifying or acquiring property suitable for the establishment of trailheads at existing and future natural open areas. Sites used for the creation of trailheads need to be relatively level, have good road access, access to utilities, and be reasonably free of sensitive habitat. At locations where a city-owned natural area is adjacent to a public park, the existing facilities of that park should be utilized as a trailhead whether or not this is the primary access to the natural area or an additional access point.

Trailheads should be designed to include off-street parking adequate for normal use of the site. This parking should include provisions for access by persons with disabilities, such as one or more parking spaces specifically designed and maintained for that purpose.

Depending on the level of use and environmental conditions such as topography and soil type, on-site parking may be constructed of pervious or impervious material. Trailheads should include restroom facilities such as portable toilets enclosed in permanent shelters, vault toilets, or full restroom buildings as is appropriate to each site based on level of use, security concerns and practicability of maintenance. Providing restroom facilities will allow and encourage use of our natural open areas by a wider range of people and address the sanitary needs of the site. Other facilities that may be considered at trailheads should include, but not necessarily be limited to, picnic tables, benches, shelters, drinking fountains, and interpretive displays. All trailhead facilities will be accessible to people with disabilities with accessible trails directly accessible from the trailhead. All access locations at natural open areas should be clearly identified by appropriate signage visible from the nearest public roadway and trailheads should be clearly identified.

## Trails Standards

### Nature Trails

- *Trail Design*

Trail routes should be designed with the intended use of the trail user in mind. Hiking trails should incorporate loops into the design to lead hikers through a variety of landscapes, vegetation, and vista points and return them to the same, or close to the same, starting location. Trails that include mountain bikes should avoid sharp switchbacks whenever possible.

- *Length*

The size and terrain of the property will have an impact on planning for hiking trails. The overall length of a nature trail should have two options: a shorter trail and a longer trail to provide for different levels of interest and ability. City trails in Natural Open Spaces are intended for day use only and trails should be designed to last no longer than a few hours at a 1-3 mile per hour rate of walking. Connector trails that link to adjoining trails in other properties and loops can be used to offer different trail lengths and can provide options for people wanting to hike for different periods of time.

- *Clearing Width*

Vegetation should be cleared to a width sufficient to avoid injury by protruding vegetation. For light use, the trails should be cleared from 4 to 6 feet across. Heavier use trails are typically wider and the clearing of vegetation also will have to be wider at 7 to 10 feet. However, steeper side slopes are more at risk of erosion and trail clearing width should be reduced to a minimum width of 3 feet.

- *Clearing Height*

The clearing height for natural trails is 8 feet. Additional clearance may be needed to compensate for branches with heavy rain or snow.

- *Trail Width*

Trail width for light use trails should be 2 to 3 feet wide and heavy use trails should be 4 to 6 feet wide to accommodate two-way traffic.

#### *Accessible Trails*

Accessible Trails must be at least 42 inches wide. Passing spaces, or turn-outs, are required every 1000 feet of trail unless the trail has no natural wide spots where users can easily move off the trail, turn-outs should be provided on a more frequent basis. Each turn-out must be 60 inches wide by 60 inches deep minimum with a cross slope not to exceed 5% in any direction.

- *Trail Surface*

Trail surface on city-owned nature trails should be natural or graveled.

***Accessible Trails***

Accessible Trails are required to be firm and stable. There is a spectrum of surfaces considered firm and stable and appropriate surfaces are not limited to surfacing materials such as asphalt and concrete. Many naturally occurring surfaces, such as crushed aggregate or soils containing some clay and a spectrum of sieve sizes, are considered firm and stable. Other natural surfaces may also become firm and stable when combined with a stabilizing agent. *Firm*, as defined by the Access Board, means “does not give way significantly underfoot”. Similarly, *Stable* means “does not shift from side to side when turning”. Acceptable standards range from moderately firm and stable to very firm and stable.

The degree of firmness and stability desired or most appropriate is related to the intended use of the trail and the overall length of the trail. For example, a surface which is both very firm and very stable is recommended for trails of more than .5 mile in length due to the duration of travel for a person with a disability. However, it may be acceptable for the surface to be moderately firm (using calculations and classifications in the table) for trails less than .5 mile but greater than .1 mile in length. It may also be acceptable for the surface to be both moderately firm and moderately stable for trails less than .1 mile in length, and where the trail is moderately level (< 3% slope). Tread obstacles cannot exceed 2 inches in height on an accessible trail.

<b>Trail Surface Firmness and Stability Classification</b>	
<b>Firmness Classification</b>	<b>Amount of Penetration</b>
Very Firm	0.3 inches or less
Moderately Firm	Greater than 0.3 inches and less than 0.5 inches
Not Firm	Greater than 0.5 inches
<b>Stability Classification</b>	<b>Amount of Penetration</b>
Stable	0.5 inches or less
Very Stable	Greater than 0.5 inches and less than 1.0 inch
Not Stable	Greater than 1.0 inch

- o ***Grade***

Ideally the slope should be between 0 and 5% for the majority of a trail. Sustained grades up to 15% maximum are permissible if there are no other options, but should be avoided for long stretches. However, when the slope of a trail has to be steep to cover certain terrain, grades of up to 40% can be included if the steep portion of the trail is 50 feet or less. Erosion problems tend to develop on steeper slopes and out-sloping the trail surface up to 4% to shed water outward is important.

### ***Accessible Trails***

Trail slopes on Accessible Trails shall be between 0 and 5% for the majority of the trail. Sustained grades up to 12% are permissible if level landings areas are provided. Any slope in excess of 5% must have resting areas, or level landings, at intervals consistent with the increase in slope (see table below).

<b>Trail Grade Standards</b>	
<b>Max run of trail slope</b>	<b>Max distance between level landings</b>
0-5%	Any Distance
6-8%	50 feet of run
9-10%	30 feet of run
11-12%	10 feet of run

Level landings must be 60 inches long and as wide as the trail which it is built upon and have a cross slope of no more than 5% in any direction. Level landings shall be provided between uphill and downhill segments of the trail where the segments exceed 8%. No more than 30% of the total trail length shall exceed a grade of 8%. The cross slope of any portion of an accessible trail cannot exceed 5%.

- ***Crossings***

Structures for crossing water, seeps (soils saturated by natural springs), or seasonal runoff beds are occasionally needed. Bridges should be used for areas that have water year round or high water levels seasonally. Culverts can be used in areas that receive lower levels of seasonal flow. Turnpikes (i.e. raised trails), French drains, and boardwalks may be necessary in areas that have seeps.

- ***Facilities***

Trailheads with parking areas should always be considered and, if no area is available, neighborhood input on street parking is needed. Benches, viewpoints and interpretive signs are important amenities to have, but should be designed to fit with the natural landscape.

- ***Technical Trails***

Trails that provide access to remote areas utilizing difficult terrain while providing a more challenging hiking experience exist at some of our sites and may be created in others. These trails should be maintained using standards that prevent the degradation of those sites while preserving the unique characteristics of the hiking experience. Generally these trails support much lighter public use and may contain sections requiring climbing or crawling. Modifying these trails to support heavy use or to make them accessible is neither feasible nor desirable.

In conjunction with a comprehensive pedestrian trail system at each natural area, multiuse trails should be established where appropriate, based on environmental and topographical considerations, as long as they do not conflict with or adversely affect other uses of the property. These trails may be used for a wide range of recreational activities in addition to hiking including mountain biking, horseback riding and exercising. These trails should utilize service roads whenever possible and be specifically designed not to interfere with other public uses. To encourage a wide range of passive recreational activities, where appropriate, technical trails and provisions to provide rock climbing opportunities should be pursued. Ideally each natural area will have a diverse cross section of trails designed to challenge individuals of all abilities.

## **Connectivity**

One of the primary goals of the Coeur d'Alene Natural Open Space Management Plan is to set forth recommendations for creating a sustainable, connected system of natural areas. In the short term, efforts will be made to protect natural areas as they exist today. Long term efforts to connect our natural open areas with the surrounding landscape should be made by partnering with other conservation-based organizations and agencies and with the citizens of Coeur d'Alene. Connecting people with the land will create numerous benefits including a sense of ownership, expanded recreational opportunities, and a healthier environment. This emphasis on connectivity is vital to the future of natural areas. The city's natural open spaces should be connected to the community and to natural areas owned or managed by other entities whenever possible. These connections should include trails to adjacent natural areas as long as the uses are compatible, direct access to the city's bikeways and trails utilizing transportation and utility right of ways, connections to active and passive-use parks, access through water resources via boat trails and shoreline access points, and entrances located near neighborhoods. By connecting our natural areas to those owned by other entities, greater opportunities for habitat protection and resource-based recreation are created. Connecting the city's natural areas to the community will encourage the responsible maintenance and use of these properties and create a greater opportunity for all citizens to access and enjoy our publicly-owned natural areas.

## **Public Outreach**

One of the most important aspects of managing our natural open areas is to connect people to their environment. Through encouraging the responsible public use of our natural open areas, the city will benefit by creating a sense of ownership of our properties and reinforce a feeling of community. Providing opportunities for citizens and visitors to enjoy the outdoors through passive recreation is an essential component of this management plan. Passive recreation encourages healthy lifestyles, environmentally-based tourism, and an appreciation of the natural environment. In addition to supporting passive recreational uses, our natural areas should be utilized to provide educational opportunities whenever possible to inform the public about their surroundings and to create a sense of ownership. In addition to providing interpretive displays and materials at suitable locations, the Coeur d'Alene Parks Department should work with organizations such as school groups, service organizations, and clubs to encourage the use of these properties for educational purposes. Additionally, the parks

department should promote the use of our natural areas through publicizing these properties by the creation and maintenance of brochures, pamphlets, television spots and the use of the city's website.

## ***Public Services and Amenities***

Public facilities include any man-made structures, amenities, or improvements present or added to the property to support public use and provide for the maintenance of the site. In all cases where site amenities are placed inside of our natural open areas, efforts need to be made to ensure that these amenities complement the landscape and do not detract from the outdoor experience.

### **Litter and Graffiti**

To provide a positive experience for the public and to protect the city's investment in these properties, it is important that litter and graffiti as well as other vandalism be rectified in a timely and effective manner. Trailheads and other heavily used areas of our natural open spaces should be checked daily for litter, graffiti and vandalism. Other areas should be inspected on a regular basis as is appropriate for each site. Litter will be removed as soon as identified by park staff. Each site will be evaluated to determine if trash cans are needed or desirable and where they should be placed. Volunteer groups will be utilized for large-scale seasonal cleanups in difficult-to-reach areas. Graffiti is addressed by City Ordinances covered in chapter 9.30 and needs to be removed within 48 hours of its discovery. Incidents involving graffiti or vandalism need to be documented by picture and reported to the Coeur d'Alene Police Department. A report needs to be filed which should include a reference to the police report. Vandalized city property needs to be completely repaired or replaced as soon as is practical. Public facilities too badly damaged to repair need to be removed from the site. Ongoing vandalism needs to be evaluated to determine if additional enforcement actions should be taken or if the vandalized facility is appropriate to the site.

### **Regulatory Signage**

At all of our natural open spaces it will be necessary to post signage to identify which activities are allowed and to explain any restrictions related to public use. In addition, signage regulating traffic will likely be needed in public parking lots located on the sites. Most signs prohibiting specific activities or uses are covered by state or city statutes and ordinances. The applicable statute or ordinance should be referenced on all signs. Regulatory signs should use standard formatting and colors already employed by the City of Coeur d'Alene, generally green, red or black on white with a border of the same color as the print. Regulatory signs relating to traffic in our parking lots should be mounted on approved signposts currently used by the city's street department. Signs intended for pedestrians should be placed on unpainted rounded wooden posts with the top of the sign located four feet above the ground level of the viewer.

## **Interpretive Signage**

Interpretive signage designed to enhance the public's experience and to educate individuals about specific features, management issues, or general interests related to the sites may be added at many of our natural open spaces. Topics may include, but are not necessarily limited to, natural habitat descriptions, wildlife historical information, and points of interest. Interpretive signs represent a substantial expense and care needs to be taken in the placement, design and protection of these assets. The base and support structure for interpretive signs should blend in with the environment as much as possible and, if practical, should be constructed using natural materials such as rock and large rough-cut dimensional lumber. Framework for the signs should be neutral earth tones.

## **Site Amenities**

Facilities that may be present or added to our natural areas to support public use may include benches, bike racks, drinking fountains, fencing, picnic shelters, picnic tables, restroom shelters, restroom buildings and trash can holders. As much as possible, natural materials should be used in the construction of these facilities such as rocks and large rough-cut dimensional lumber. The colors of these facilities should be neutral, utilizing shades of greens, grays, and browns. Each natural area will be continuously evaluated to determine if any facilities should be added to that site as well as the type, number and location needed at each site. In many cases the site amenities needed to support public use of our natural areas will be located in adjacent parks. If feasible, site amenities located in public parks that are adjacent to entrance points of our natural areas should conform to the standards of this plan so as to complement and not detract from the natural beauty of the site.

## **Support Facilities**

To support the maintenance of our natural areas, it may be necessary to provide a location to store materials and supplies and to perform work. In general these facilities should be located off of the site at a nearby active-use park or at one of the city's existing maintenance facilities. In the future it may be necessary to include a small shop on one or more natural areas to support the maintenance of that site. In this event, any shop or work area should be designed to blend in with the natural habitat and be positioned not to interfere with the public's enjoyment of that site. In the event a public restroom is provided on any given site, it is necessary that a storage area or closet be included in the facility to keep janitorial materials.

# **A. Tubbs Hill**

## ***Introduction***

1. *Site Description*
2. *History*
3. *Goals*

## ***Habitat Management***

1. *Natural Habitat Description*
2. *Management History*
3. *Recommended Management Actions*

## ***Wildlife Management***

1. *Wildlife on Tubbs Hill*
2. *Recommended Management Actions*

## ***Fire Prevention and Protection***

1. *Site-specific Fire Dangers*
2. *Recommended Management Actions*

## ***Access and Connectivity***

1. *Existing Site Access, Trails, and Service Roads*
2. *Recommended Management Actions*

## ***Public Facilities***

1. *Existing Public Facilities*
2. *Recommended Management Actions*

# Tubbs Hill

McEuen Park

Private Property

Main Trail

Summit Trail

Main Trail

Fire Road Trail

Water Tower

Main Trail

Oscar/Alene Lake

**Legend**

-  Park Boundary
-  Hiking Trails
-  Fire Road Trail
-  Proposed Fire Road Extension
-  Proposed Accessible Improvements
-  Access Roads

# ***Introduction***

## **Site Description**

Acquired by the city through several separate transactions between 1936 and 1992, Tubbs Hill is Coeur d'Alene's best known and most used natural open space. With the exception of a handful of small privately owned parcels, the entire hill is owned by the city and is open for compatible passive outdoor recreation by the public. The property known as Tubbs Hill is approximately 120 acres and is located on Lake Coeur d'Alene immediately south of the central business district and is between the Sanders Beach neighborhood and the Coeur d'Alene Resort. The hill is accessed through McEuen Field and East Tubbs Hill Park, both of which are owned and managed by the city. Tubbs Hill forms a peninsula jutting out into Lake Coeur d'Alene and has almost two miles of natural shoreline on that body of water. The shoreline contains a number of sandy beaches with rocky shores and some cliffs. Tubbs Hill is completely forested and has a wealth of rock formations throughout the site. Elevations on the hill vary from 2,128 feet at the normal summer water line to approximately 2,533 feet at the high point of the property. This 120-acre park is unique not only for its lakeside scenery, but also because it has remained in a relatively natural condition. As a public area in the heart of downtown Coeur d'Alene, Tubbs Hill has been a central element in the history of Coeur d'Alene and its residents. Primary public uses of Tubbs Hill include hiking, swimming, exercising, and nature appreciation. In keeping with the goal of maintaining a natural environment, almost all amenities and public facilities related to the use of Tubbs Hill are located off the site in the adjacent public parks. The hill itself has over four miles of primary hiking trails, a mile and a half of gated access roads and is the site of a city-owned water storage facility.

## **History**

In 1936, the city's first purchase of Tubbs Hill property was made for the sum of \$19,000, funded by a bond issue. With this sum, paid to the Coeur d'Alene Lumber Company, the city acquired some 35 acres, included what is now McEuen Field (site of the old lumber mill) and a strip of land along the west side of the hill extending to the southwest point. Thirty-three years later, in 1969, the city purchased a 34 acre parcel on the south side of the hill from the Idaho Water Company for \$115,000, with half of the money coming from a federal Land & Water Conservation Fund grant. In 1974, the city acquired the Idaho Water Company water business in the city, and with it the remaining 34 acres of Idaho Water Company's land holdings on the hill.

Finally, after two years of negotiations and fund raising, the city acquired the last remaining large parcel, an additional 34 acres, from K.A.W., a local investment group, at a cost of \$276,100. Again half of this amount came from a federal Land & Water

Conservation Fund grant. The city council appropriated \$72,237, approximately 25% of the total. The balance came from a local public subscription drive, aided very substantially by a contribution of \$44,000 from the Jewett Foundation of Spokane. This purchase brought the total of public land to approximately 137 acres, which allowed for the establishment of McEuen Field, a city parking lot, and approximately 120 acres on Tubbs Hill. In 1992, a parcel of land in private ownership on the Hill was purchased by the city for \$20,000 with half of that amount being raised by a non-profit group, Tubbs Hill, Inc.

In 1979, the main lakeshore trail, which until that time had ended on the west end at the foot of Third Street and on the east at the foot of 10th Street, was extended across the north face of the hill so that for the first time one could walk entirely around the hill. This trail was designed by volunteer U.S. Forest Service employees and constructed by a Young Adult Conservation Corps (Y ACC) group financed and supervised by the local Bureau of Land Management office.

In 1987, an interpretive trail program was implemented on Tubbs Hill. The trail has numbered markers which correspond to a guide book depicting the natural and historical resources on Tubbs Hill. The current guide brochure is available at City Hall, the Parks Department office, and some local businesses.

A severe ice storm hit the Coeur d'Alene area in November of 1996. Many trees on Tubbs Hill were uprooted, broken off, or otherwise damaged by the heavy weight of accumulated ice. After consultation with experts in the fields of forestry, forest pathology, entomology, and wildfire prevention, it was decided to remove the downed and severely damaged trees by helicopter. In March of 1997 over 1,850 tons of logs and woody debris were removed from the hill by helicopter.

The value of the saw logs covered the cost of the job, with the city receiving a profit of \$16,400 from Idaho Forest Industries. This amount was set aside for recovery and improvement projects on Tubbs Hill. Later that spring, debris within 25 feet of the major trails was removed by chipping or piling and burning. To further address insect problems resulting from the ice storm, an anti-aggregant pheromone was applied to 50 acres of Tubbs Hill in spring of 1999 to discourage attacks of the Douglas-fir Bark Beetle. In the spring of 1998, trail improvements were made at the Third Street entrance to Tubbs Hill to improve access.

Since 2000, a trailhead park was developed on land formerly used by the Coeur d'Alene Water Department on the east side, at the Tubbs Hill 10<sup>th</sup> Street entrance. East Tubbs Park includes parking and a restroom shelter and serves as a primary access to the trail system on the hill.

In 2002, a \$70,000 trail repair and improvement project was completed on the main loop trail around the perimeter of the hill. The Tubbs Hill Foundation contributed \$12,500 to this project.

In 2003, a 60-foot wide fuel break was completed by the FireSmart program on both city and private land along the north side of the hill.

In 2010, non-native Norway maples and exotic cherry trees were cut and the stumps chemically treated to minimize sprouting. This was done on portions of the east and north sides of the hill and was funded by a federal grant for fire hazard fuels reduction.

In the spring of 2011, the city coordinated a planting project working with volunteer service groups for restocking the fuel reduction areas. Species of seedlings planted included, ponderosa pine, blister rust-resistant white pine, western larch, native syringa and chokecherry. This planting totaled 2450 trees and shrubs.

A management plan was developed and adopted by the city council in September 1988 to guide the city's efforts to preserve the natural habitat and provide access to Tubbs Hill. A replacement for the "Tubbs Hill Management Plan" prepared and adopted in July 2000, focused on the next ten year period. Many of the goals of these management plans have been accomplished and much of the recommendations contained within them are of an ongoing nature. This management plan (the third) is intended to continue efforts to restore the natural habitat while providing expanded public access.

## **Goals**

To preserve Tubbs Hill for future generations, it is critical that ongoing efforts to restore the natural habitat be continued and expanded. Maintaining access for public use and expanding that access to serve a larger segment of our population, while maintaining the visual integrity and natural condition of the site, will continue to be a challenge. In order to prevent wildfires, preserve the natural resources and protect adjacent properties, conditions on the site have to be created and maintained that enhance public safety and allow the effective use of emergency services.

Situated close to the city center and waterfront, Tubbs Hill uniquely provides the public with opportunities to enjoy an area that has the aesthetic values of a forest setting. The primary goal for the management of Tubbs Hill is to provide the public with diverse, safe opportunities for use while retaining the natural setting. For the continued quality of recreational experiences, management activities will be implemented which enhance, protect, and maintain the diversity of natural resources on Tubbs Hill.

# **Habitat Management**

## **Existing Natural Habitat**

The natural habitats on Tubbs Hill are largely dependent on the aspect of the slope of the hill. South facing, and to a lesser extent west facing, slopes tend to be dominated by ponderosa pine forest while the north and east slopes are primarily made up of a Douglas-fir associated forest. The forest on Tubbs Hill now consists primarily of Douglas-fir and a lesser component of ponderosa pine. On the northern and eastern sides, which have more moisture, additional tree species can be found in varying amounts. These include western larch, grand fir, Norway maple, cherry, Rocky Mountain Maple, and a few western white pine. A more complete listing of trees, shrubs, forbs, grasses, and other plants will become available. The conditions now existing on Tubbs Hill are those of a "late succession" forest. The natural habitats on Tubbs Hill have been extensively surveyed and categorized according to the definitions contained in publication [The Forest Habitats of Northern Idaho a Second Approximation](#). The identified habitats on the site include

- **Ponderosa Pine/Idaho Fescue** habitat type (*type 1 on the map*) is found on the lower slopes of the south side of Tubbs Hill, which have shallow soils and are the driest sites. Ponderosa pine is the primary tree species capable of reproducing on these dry sites and currently comprises 93% of the stand. The remaining 7% is Douglas-fir that has been able to become established on incidental micro-sites where a little deeper soils have developed. Grasses are the primary ground cover in these open stands.
- **Douglas-fir/Snowberry** habitat type (*type 2 on the map*) is found on the upper south and west facing slopes. This habitat type has deeper soils that hold enough moisture for the Douglas-fir to grow. Ponderosa pine can become established in full sunlight. On the sunny southern slopes of this type, ponderosa pine comprises 75% of the stand. Because of the exclusion of fire, Douglas-fir is seeding in thickly under the shade of the ponderosa pine trees. On the west slope of this type, ponderosa pine is only 20% of the stand, with the remaining 80% Douglas-fir.
- **Douglas-fir/Ninebark** is the type that covers the largest area on Tubbs Hill. It is found in the moist areas on the north, east and west facing slopes (*type 3 on the map*). As the name suggests, Douglas-fir will dominate these sites as they progress toward late succession. Ponderosa pine can also be an integral part of this type when direct sunlight is available to the ground. The exclusion of fires that would have naturally occurred has favored the development of a dense

- Douglas-fir component (approximately 80%) and an increasingly smaller ponderosa pine component (approximately 20%).
- ***Douglas-fir/Ninebark/Wild Lily*** (type 4 on the map) occurs within the Douglas-fir Ninebark type where more soil has accumulated in draw bottoms. These are the wettest sites on Tubbs Hill and are capable of sustaining the greatest variety of tree species. Removal of the ponderosa pine by logging (early 1900s) and protection from fire has resulted in a dense stand of Douglas-fir (74%). These stands have the greatest occurrence of root disease and received the greatest damage during the 1996 ice storm. Openings created by Douglas-fir trees dying from root disease are being colonized by non-native Norway maple and domestic cherry trees. These non-native species now comprise 12% of the stand and are reproducing. The remaining 14% of the stand is western larch, ponderosa pine, grand fir and western white pine.
  - ***Douglas-fir/Ponderosa Pine Mosaic*** (type 5 on map). The most significant moisture limiting factor on Tubbs Hill is the shallow soil. There are areas with very shallow soil and rock outcroppings that cannot be adequately defined by one habitat type. Both Douglas-fir and ponderosa pine of various ages are growing in between the rocks where pockets of soil are available.
  - For more detailed descriptions of these habitat types see "Tubbs Hill Vegetation: Habitat Types" in the Appendix.

### **Insects, Diseases, and Invasive Species**

Factors negatively affecting the natural habitat on Tubbs Hill include insects, diseases and invasive plants. The current tree mortality levels (2011) are what would be expected in a late successional forest. In many areas there are too many trees for the site to adequately support, therefore, they have become stagnated or are being "thinned" out by insects, diseases, or drought. These losses are creating irregular holes in the forest and increasing amounts of fuels, increasing the risk of high intensity fires.

The exclusion of fire which would occur naturally has encouraged the proliferation of shade-tolerant species such as Douglas-fir and grand fir. Unfortunately, Douglas-fir and grand fir are the most susceptible species to root diseases, so it is not surprising to see increasing losses from root diseases wherever these species are dominant. A recent survey found root disease is most common in the Douglas-fir/Ninebark/Wild Lily type, but is causing various amounts of mortality on all of the sites containing Douglas-fir.

Root disease "pockets" or "centers" tend to expand radially as infection moves from infected trees to healthy trees via root contacts. Openings created by this gradual mortality are usually regenerated by the shade-tolerant climax species. However, since root diseases can survive for many years on old roots, replacement through regeneration is usually unsuccessful as the young trees commonly fail when they come

into contact with older infected roots. Therefore, it is unlikely that any Douglas-fir will survive to maturity in root rot pockets. Many of the large Douglas-fir near root disease centers on Tubbs Hill are either dead or have symptoms of infection and cannot be expected to live much longer.

In the areas where ponderosa pine still predominates, many are infected with ponderosa pine dwarf mistletoe. Dwarf mistletoe is a disease that slowly saps the health of mature trees and can kill younger trees. This particular species of dwarf mistletoe is host-specific so that it cannot spread to other species such as Douglas-fir or western larch. The disease can often be recognized by the distinctive proliferation of branches (called "witches brooms") on infected portions of the tree. These tend to create unusual "character" trees which may be rather photogenic, but can also become hazards since they are weak and tend to break off rather easily.

When trees are too crowded they become stressed and weakened. When stress is great enough, the trees become targets for attack by numerous insects. The insects of greatest concern on Tubbs Hill are bark beetles. Bark beetles have been actively killing trees in the ponderosa pine component of Tubbs Hill for many years. A 1997 survey showed 75 to 100 ponderosa pine have been attacked and killed by bark beetles. The survey also showed current activity at that time, identifying 12 green trees with bark beetles in them. The survey also found woodpeckers actively feeding on the beetle populations and significantly reducing their numbers. Another beetle, the pine engraver, is known for its ability to build up populations in downed material. Because of this, a great effort was made to clean up the downed material after a November 1996 ice storm to prevent high population build-ups. This was accomplished by removing downed and severely damaged trees 'by helicopter. Despite these efforts, a surge in the populations of Douglas-fir Bark Beetle and wood borers was experienced and over 200 dead and dying trees were tallied in a 1999 survey.

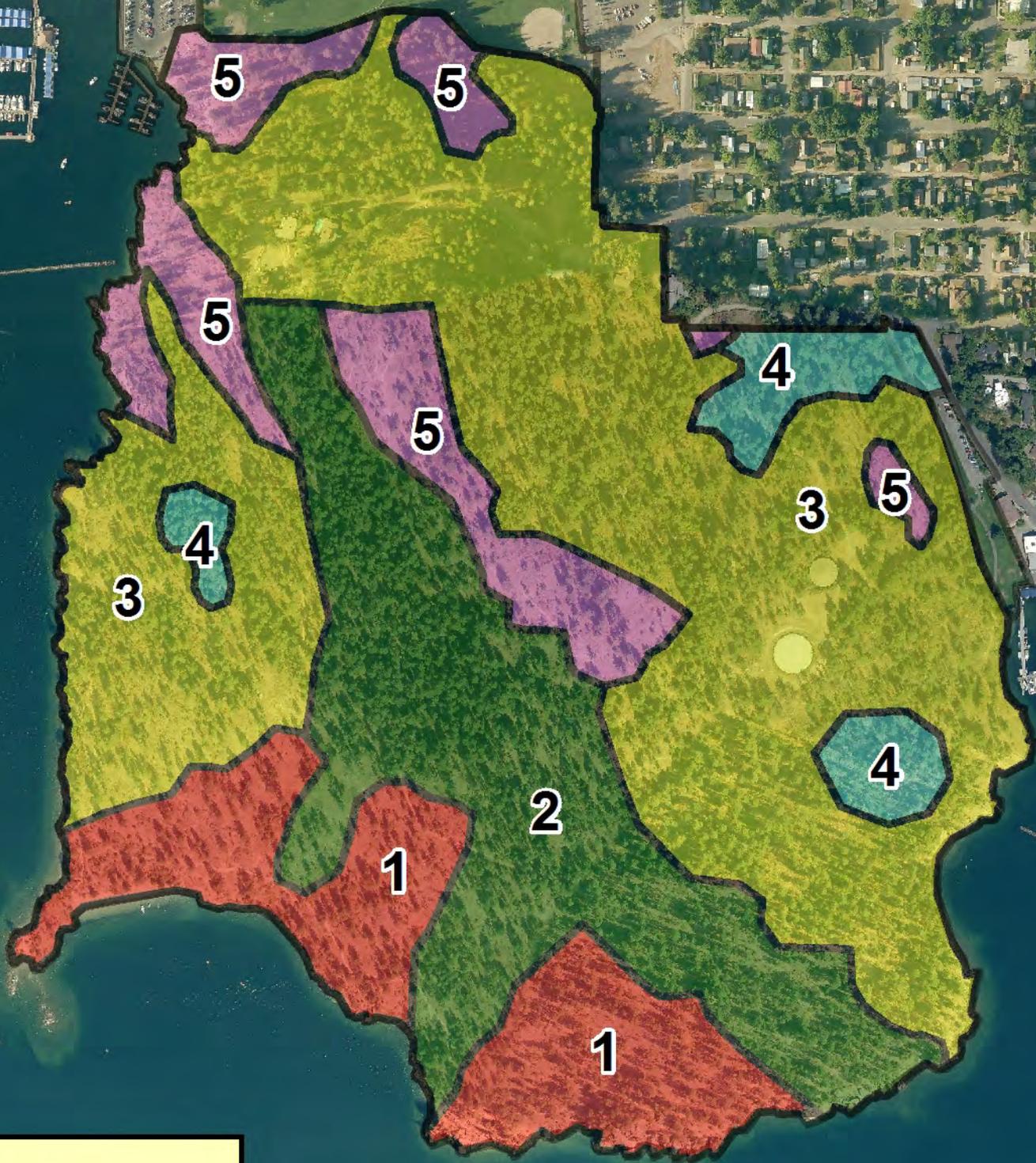
Non-native trees will continue to establish and reproduce where there is sufficient moisture and sunlight. The most prevalent non-native species are Norway maple and cherry. Most of these species were cut and the stumps chemically treated in the summer of 2010. Noxious weeds are those specified by state law to be detrimental to the public welfare. There are several noxious weeds on Tubbs Hill, with the one of greatest concern being spotted knapweed.

Without active management, it can be expected that the natural habitat on Tubbs Hill will evolve in a direction incompatible with the long term goals for the property. However, if no specific actions were to be taken, with the exception of those to maintain safety and prevent/contain fires, the following vegetative changes can be expected over the next 50 to 100 years:

- Ponderosa pine dwarf mistletoe will spread and intensify. It is not a rapid killer of large trees, but will slowly reduce the health and vigor of infected trees. Younger

- ponderosa pine growing under infected trees will become infected and will probably not reach maturity.
- Due to lack of clearing ground fires, the more shade-tolerant Douglas-fir seedlings will continue to out-compete the ponderosa pine seedlings which require direct sunlight for growth. There will be an overall increase in Douglas-fir and a decrease in the numbers of ponderosa pine trees.
  - Root diseases will become more wide-spread on Douglas-fir sites (north, east and west sides of the hill) because the susceptible Douglas-fir is so dominant and then spreads through root grafts. A mortality rate of as much as 3% per year within the Douglas-fir stands can be expected, with few to no Douglas-fir reaching maturity and significant mortality in the Douglas-fir regeneration.
  - As significant mortality of Douglas-fir occurs on the northern and eastern sites, eventually there will be openings large enough to provide the sunlight needed to establish ponderosa pine seedlings. However, this will occur naturally only if a seed source is available, and the litter layers of dead leaves, needles, and twigs are reduced to expose an adequate amount of mineral soil. In an unregulated forest, fire would "prepare" the site for the ponderosa pine seeds, and competition from grasses, shrubs and the more shade-tolerant, non-native maple trees is reduced.
  - The non-native Norway maple and cherry trees will continue to grow and expand into other root disease clearings where sufficient moisture is available. This will effectively prevent establishment of conifers on these sites.
  - The few remaining large old ponderosa pine and Douglas-fir trees will eventually die due to age and other natural forces. Such large ponderosa pine trees will likely not occur again naturally due to increasing competition from the Douglas-fir on ponderosa pine sites. Large Douglas-fir will likely not occur naturally on the Douglas-fir sites due to competition and root disease problems.
  - Mortality from root diseases will create hazardous trees and gradually increase the fuels and fire hazard. The amount of damage that can be caused by wildfire is dependent on factors such as fuel dryness, wind velocity, speed of detection, and the response time of fire-fighters. In the presence of heavy fuel loadings, wildfire has the potential for great negative impacts on forest vegetation as well as soil, the safety of the public, and the private properties close to Tubbs Hill.
  - Overall forest health will steadily decline as root disease and dwarf mistletoe increase and competition of understory vegetation continues to decrease vigor of both large and small trees. As tree and stand growth slows due to disease and over-crowding, insect populations will increase. This will increase rates of mortality above that caused by the spread of root disease.

# Tubbs Hill Forest Habitat Type Map



## Legend

### Tubbs Hill Forest Habitat Type

-  1 - Ponderosa Pine/Idaho Fescue
-  2 - Douglas-Fir/Snowberry
-  3 - Douglas-Fir/Ninebark
-  4 - Douglas-Fir/Ninebark/Wild Lily
-  5 - Douglas-Fir/Ponderosa Pine Mosaic

## Management History

Prior to 1900, ponderosa pine, a seral species, was dominant over the whole hill with a smaller component of Douglas-fir and western larch. In the early 1900s, sawmills were located at what is now McEuen Field and the Coeur d'Alene Resort golf course. Photos from this era show that Tubbs Hill was heavily logged during this time. The young Douglas-fir that began life in the shade of the ponderosa pine became a large component of the new forest as the ponderosa pine was removed. As a popular recreation area, Tubbs Hill was protected from fire over the years, allowing a dense understory of shade-tolerant shrubs and conifers, mostly Douglas-fir, to develop. The Management Plan for Tubbs Hill Park written in 1988 identified threats including invasive and exotic weeds, failure to replant burned areas, and excessive fuel accumulations. Prior to 1988, records related to habitat management activities on Tubbs Hill were close to non-existent

A severe ice storm in November of 1996 caused a great deal of destruction and damage to trees on Tubbs Hill. This event was a catalyst for implementing active natural habitat management on Tubbs Hill. In order to restore safe conditions for public use, reduce fire fuel loads, and help minimize build-ups of populations of destructive insects, the damaged trees were removed by helicopter in March of 1997. Unfortunately, insect populations still built up in surrounding forests and many Douglas-fir on Tubbs Hill were attacked by the Douglas-fir bark beetle and wood borers during the summer of 1998. In response to the presence of the Douglas-fir bark beetle on Tubbs Hill, 50 acres of the Douglas-fir sites were treated with an anti-aggregant pheromone in the spring of 1999 to prevent further losses.

Since the spring of 1999 management actions related to the maintenance of the natural habitat have included:

- In March of 2000, a prescribed burn was completed on 50 acres on the south and southwest sides of the hill. Additional information including photographic documentation prepared by the Idaho Department of Lands is available.
- In the spring 2002, a second prescribed burn also on the south and southwest face of the hill was completed.
- The city planned to conduct prescribed burns in 2006 and 2008, but did not get the weather conditions required to carry them out. The 2008 plans included a fall burn that would reduce fuels on the east and west sides of Tubbs Hill. However, due to weather conditions this fuel reduction burn was not completed.
- In 2001, a wildfire burned a small area on the north side of Tubbs Hill. This fire killed several trees and burned the understory in an area less than an acre in size. A member of the Urban Forestry Committee, a member of the Tubbs Hill Foundation, and two more volunteers planted ponderosa pine and western larch seedlings in this area in April 2002.
- In 2003, with the assistance of FireSmart funding, brush was cleared and low tree branches were pruned in a buffer strip next to private properties on the north side of Tubbs Hill.

- From 2005 to 2009, because of the loss of Douglas-fir to root rot on the north side of the hill, small openings were cleared (6 feet) to plant ponderosa pine. Volunteers from a variety of groups helped with the clearing and planting. Two Hundred seedlings were planted in 2005, with replacements and additional seedlings planted over the next few years. In the ensuing years, re-clearing of the plots was completed by volunteers as well as by hiring a contractor to apply herbicide. The same contractor also used GIS to locate/inventory the north side seedlings.
- In 2010, over 43 acres on the north and east sides of the hill were treated by a combination of fuel reduction and non-native tree control. The fuel reduction involved the removal of a percentage of shrubs and other undergrowth to reduce and slow down the spread of wildfire. Part of the treatment was to eliminate ladder fuels, as tall shrubs and low-hanging tree limbs created conditions by which ground fires could climb into the tops of trees. Funding assistance came from a grant through the local WUI (Wildland-Urban Interface) Committee.
- In conjunction with the fuel reduction, Norway maple and cherry trees 5" in diameter or less were removed and stumps treated with herbicide to prevent re-sprouting. Non-natives that were larger than 5" diameter at breast height were later treated with herbicides, but were not cut down. Funding for the herbicide application was provided from the city's Tubbs Hill fund (dock fees).
- In 2011, volunteers helped plant 2,300 tree seedlings and 100 native shrub starts in the 43 acres treated in 2010 for fuel reduction and non-native control. Tree species planted included ponderosa pine, white pine, and western larch.
- Between 2000 and 2007, with the assistance of Kootenai County, large areas of Tubbs Hill were treated for exotic invasive weeds, specifically Dalmatian toad flax and spotted knapweed. These chemical applications occurred every other year on three occasions and were successful in reducing the amount of undesirable plants in the areas treated.

## **Recommended Management Actions**

To achieve the desired conditions in the natural habitat, it is important to identify the long term goals for the forest health on Tubbs Hill. Vegetation management should be directed toward a future forest (50 to 100 years from now) that will be in a healthy condition. There will be some mortality, which can be expected in any natural system, but significantly less than can be expected if no management actions are taken.

This healthy forest will reflect the biological distribution of trees and plants that would have been found on Tubbs Hill at the time that Euro-Americans arrived in the Coeur d'Alene area. It will be a "multi-aged" forest with a variety of tree ages and tree sizes, ranging from some quite large, mature trees (greater than 36" in diameter) to healthy reproduction. There will be as much diversity of native tree species as can be supported by the variety of Forest Habitat Types present.

To enhance forest health, the density of the trees will be at or below a maximum level that can be supported by the environmental factors of each habitat type. This "stocking" level will allow undergrowth, such as shrubs and grasses, to be present.

For the benefit of forest health and public safety, some unobtrusive measures will be taken to minimize the danger of the spread of wildfire, both on Tubbs Hill and into surrounding private properties. As stand composition and stocking levels are adjusted to reduce Douglas-fir mortality due to root rot, and to more closely reflect historic levels, forest health will improve. Losses will not be eliminated, but potential for bark beetle outbreaks will be dramatically reduced and losses from diseases will also decline. Root diseases are part of the natural ecosystem, but historically were of only minor consequence since their preferred hosts (Douglas-fir and grand fir) were not dominant species on Tubbs Hill. As the stocking levels of these highly susceptible species are reduced or replaced with less susceptible species such as ponderosa pine and western larch, the effects of root disease will decline. The increased presence of ponderosa pine or other species will help reduce the potential for root contacts that allow the root disease to spread.

Dwarf mistletoe in ponderosa pine will occur only on scattered large trees where it will have little effect. Infections on young trees will be minimized by creating disease-free buffer zones where ponderosa pine regeneration is desired.

Reduction of crowding will alleviate some of the stress on the Tubbs Hill trees. Healthier trees will be less attractive to destructive insects as well as better able to repel or withstand insect attacks.

Numbers of non-native species and noxious weeds will be minimal. This will allow the habitats now being invaded by these species to be utilized in growing the widest variety possible of native species.

Ongoing efforts to restore and maintain the natural habitat on Tubbs Hill will require the continuation and expansion of the management actions taken over the last twenty years. Much progress has been made towards reestablishing an uneven-aged open-canopy mixed coniferous forest relatively free of exotics. To move forward with improving the natural habitat on Tubbs Hill, the following management actions will be completed

1. Continue Efforts to Restore Ponderosa Pine Habitat Over the past ten years, progress has been made on efforts to restore the ponderosa pine habitat on Tubbs Hill through the use of prescribed fire and selective vegetation management. These efforts need to be continued and expanded while additional management activities are developed and used.

- Where ponderosa pine regeneration is being established, create a 60' wide buffer zone of dwarf mistletoe-free ponderosa pine
- Prune off branches off sapling trees infected with dwarf mistletoe utilizing volunteer labor supervised by park personnel
- Plant ponderosa pine seedlings in small openings as opportunities arise.
- Selectively remove immature shade-tolerant trees to allow for ponderosa pine regeneration

- Create and burn small slash piles in a mosaic pattern to remove excess fuel accumulations and use the resulting cleared area to reestablish ponderosa pine through the planting of seedlings
- Restore ponderosa pine habitat through implementing a planned fuel-reduction project on the west side of the hill

2. Continue Working to Eliminate Exotic Trees and Plants Although ongoing efforts to reduce and eliminate exotic trees and plants have generated impressive results, this project needs to be continued. Major projects to cut down and treat exotic trees on the north and east side of the hill have recently been completed. To ensure that these areas are not recolonized by invasive plants, regular actions should take place including

- Surveying the site annually to determine which areas need retreatment
- Cutting down re-sprouted trees and bushes on previously treated areas once every three years to allow for desirable replacement tree to become established
- Planting native species appropriate to the habitat type(s) in the resulting openings
- Treating noxious weeds, as identified by state law, by monitoring them and using approved methods to eliminate them from the area.
- Educating parks personnel in noxious weed recognition to assist in this effort through the acquisition and continuing accreditation of pesticide applicators licenses
- Working with Kootenai County Noxious Weed Department and volunteer service groups such as The Friends of Tubbs Hill and The Tubbs Hill Foundation on specific projects

3. Create a Diverse Open Canopy Coniferous Forest .The existing habitats on Tubbs Hill are dominated by two plant communities, ponderosa pine forest and Douglas-fir forest. Historical evidence indicates that areas of Tubbs Hill were historically dominated by open ponderosa pine forest with a smaller component of Douglas-fir, western larch and white pine. To improve the habitat and to restore the natural conditions on the hill as part of an effort to create and maintain a diverse forest the parks department should

- Gather historical documentation related to identifying the forest types on the hill at the time of European settlement
- Based on that documentation and the present conditions of the site, identify areas that have in the past and can now support western white pine, western larch and other forest habitats
- Work towards establishing those habitats by selective removal of shade-tolerant species such as Douglas-fir and the planting of the desired tree species
- Continuously maintain these areas by the use of selective vegetation management
- If a location is identified, establish a western white pine grove on the north side of the hill (Note: these micro-sites have been identified and were planted in the spring of 2011)
- Plant desirable shade-intolerant, root-rot resistant species in areas of Douglas-fir experiencing root rot mortality

- Maintain good growing conditions for the 2011 tree plantations on the east and north sides of the hill by cutting re-sprouted brush and chemically treating trees and stumps missed in the 2010 fuel reduction project every three years, or as needed, to provide maximum sunlight and reduce moisture competition

4. Reduce Tree Crowding Reducing competition among trees will improve the overall health of the forest by encouraging the growth of vigorous healthy trees, reduce the incidence of insect and disease outbreaks, and create a more attractive forest environment. Additional benefits of maintaining tree density at or below the maximum stocking levels that the habitat will support include allowing the growth of ground cover and understory vegetation. To maintain tree densities at the desired levels it will be necessary to

- Develop data (stand tables) on the distribution of ages and sizes within habitat types in order to achieve a stand distribution based on maximum stand density, tree size, and multi-aged stand principals , as this information will be helpful in making future decisions regarding under-planting and thinning
- As habitat types reach maximum stocking levels, control the amount of reproduction by mechanically thinning trees 4" d.b.h. or smaller.
- Change the composition of the natural habitat by favoring early secession, shade-intolerant tree species through selective removal of late secession shade-tolerant trees

# Wildlife Management

## Wildlife on Tubbs Hill

Tubbs Hill is located adjacent to heavily developed residential neighborhoods in Coeur d'Alene. The hill is noteworthy for the large numbers of white-tailed deer and wild turkey residing on and around it. Additionally, numerous species of birds, small mammals, reptiles and amphibians are found on the property. Tubbs Hill is relatively isolated from other large natural areas and many species of animals are unlikely to migrate across residential and commercial areas of the city to the hill. The residential neighborhoods east of Tubbs Hill are heavily wooded and often used as an extension of the natural habitat on the hill by wildlife. To maintain adequate habitat to support the wildlife found on the hill and to create and maintain conditions that may allow for the re-introduction of species formerly found, management activities directed at protecting, maintaining, and creating suitable habitat need to be taken. Because of its waterfront location near the central business district and the relatively heavy visitation of the site, Tubbs Hill is an excellent location for environmental education.

### Birds found year round on Tubbs Hill

Black-capped Chickadee	Evening Grosbeak
Mountain Chickadee	Pine Siskin
Pygmy Nuthatch	Cassin's Finch
Red-breasted Nuthatch	Red Crossbill
Dark-eyed Junco	Red-necked Grebe
Common Raven	Western Grebe
House Finch	Double-crested Cormorant
Ring-billed Gull	Canada Goose
Downy Woodpecker	American Crow
Hairy Woodpecker	Common Merganser
Northern Flicker	Rock Pigeon
Golden-crowned Kinglet	European Starling
Pileated Woodpecker	Townsend's Solitaire
Ruffed Grouse	Black-billed Magpie
Steller's Jay	Great Blue Heron
Pacific Wren	Wild Turkey

### Spring or Fall Migrants, Neotropical Breeding Birds:

Common Loon	American Robin
Osprey	Violet-green Swallow

Calliope Hummingbird  
Rufous Hummingbird  
Black-chinned Hummingbird  
Brown-headed Cowbird  
Black-headed Grosbeak  
Bufflehead  
Common Goldeneye  
California Gull  
California Quail  
Cassin's Vireo  
Cedar Waxwing  
Chipping Sparrow  
Clark's Nutcracker  
Western Flycatcher  
Western Wood Pewee  
Hammond's Flycatcher  
House Wren  
MacGillivray's Warbler  
Yellow Warbler  
Nashville Warbler

Yellow-rumped Warbler  
Orange-crowned Warbler  
Townsend's Warbler  
Mourning Dove  
Ruby-crowned Kinglet  
Red-naped Sapsucker  
Song Sparrow  
Vaux's Swift  
Varied Thrush  
Swainson's Thrush  
Warbling Vireo  
Western Tanager  
Horned Grebe  
Ruby-crowned Kinglet  
Red-eyed Vireo  
Spotted Towhee  
White-crowned Sparrow  
Herring Gull - winter  
Bohemian Waxwing - winter

#### **Mammals found on Tubbs Hill**

White-tailed Deer  
Moose (Occasional visitor)  
Red Fox  
Yellow-bellied Marmot  
Red Squirrel  
White-footed Mouse

Gray squirrel  
Vole  
Shrews – several species  
Yellow-pine chipmunk  
Bats – several species  
Raccoon

#### **Reptiles and Amphibians found on Tubbs Hill**

Rubber boa

## Recommended Management Actions

To maintain the diversity of wildlife presently found on Tubbs Hill and to create conditions that may allow the re-establishment of animal species no longer found on the site, efforts should be made to educate the public and manage the natural habitat for the benefit of wildlife. Activities detrimental to native wildlife should be regulated or prohibited. To protect wildlife on Tubbs Hill the parks department should work towards educating the public on the needs of native animals and the protection of sensitive habitat.

### 1. Provide Educational Opportunities Focusing on Wildlife

- Encourage the use of the park for wildlife education by creating and making available interpretive materials for the general public
- Installing and maintaining wildlife interpretive signage at the entrances to the park
- Work with the Coeur d'Alene Police Department to enforce city ordinances prohibiting dogs off leash

2. Protect and Maintain Habitat for Wildlife To ensure that adequate habitat for small mammals and birds is preserved, the following actions related to habitat management should be taken

- Leave snag and cavity trees in the natural habitat within safety and fire danger limitations
- Protect the rock habitat found on Tubbs Hill by selective placement of trails
- Maintain areas with ground covers and native brush within fire safety limitations

# ***Fire Protection and Prevention***

## **Site-specific Fire Issues**

Tubbs Hill is classified as an extreme fire hazard by the Coeur d'Alene Fire Department. The park is located in the Tubbs Hill Wildland-Urban Interface. Resources at or near Tubbs Hill related to fire prevention and protection include access to the municipal water system through fire hydrants located along public streets at the base of the hill, along Pine Street to the beginning of the fire road, and at the water storage facility on the northeast slope above East Tubbs Park. In addition to access at the base of the hill through McEuen Field and East Tubbs Hill Park, two one-way narrow fire roads provide access to the interior of the site. Fuel accumulations on the site are moderate to heavy, depending on the specific location, and the forest contains large areas of closed canopy Douglas-fir-dominated habitat. Identified deficiencies include:

- One way in and out access roads
- Roadway grades in excess of 5%
- Roadways less than 20 feet wide
- Dead end access roads longer than 200 feet
- Limited defensible space
- Topography in excess of 30%
- Several residences located within the property and adjacent to the property at the base of the hill
- Lack of water sources in the center of the property
- Areas with heavy fuel accumulations
- Above ground utilities
- Lack of fire rated building materials on adjacent structures
- Multiple security gates on access roads

Historically, wildfire suppression efforts coupled with a lack of vegetative management have contributed to the over accumulation of fuels. Over the past decade steps have been taken to reduce fuel loads on the property by selective vegetation management and the use of prescribed fire. Controlled burns in 2000 and 2002 reduced fuel loads on the south side of the hill in the ponderosa pine habitat. Large fuel reduction projects in the Douglas fir habitat on the north and east sides of the hill have been completed over the past ten years. An area of defensible space, 60 feet wide, on the northeast property line next to residential development was created by selective vegetative management in 2003. Thinning of flashy fuels and ladder fuels was accomplished along the Fire Road and along much of the loop trail. A fire behavior model for Tubbs Hill was created by the Idaho Department of Lands in 1997. A follow up based on the existing fuel conditions was created in 2012. Because of its recreational use, proximity to dwellings and being located in the downtown area, the exclusion of uncontrolled wildfire on Tubbs Hill is critical. Conditions related to the risk of wildfire that can be managed include fuel loads, the creation and maintenance of defensible space, availability of water sources, and suppression response time. To prevent wildfire and protect Tubbs Hill, reduction of fuels

and the creation and maintenance of defensible space is very important. Fuel reductions through vegetation management and fuel removal activities will be balanced with the objective of maintaining the natural setting of the Hill.

## **Recommended Management Actions**

To prevent wildfire and to successfully contain and extinguish wildfires on Tubbs Hill when they do occur, the following management actions should be completed.

1. Connect the Fire Road to the Water Tank Service Road In order to provide access to the interior of the site, the narrow fire road should be connected to the water storage access road by any primitive trail or travel way to create a loop road that will improve access and increase the margin of safety for emergency personnel. This road, primitive trail or travel way can also be used to support additional management activities related to improving and protecting the natural resources on the hill such as fuel reduction, selective vegetative management and exotic plant and weed control. The creation of a primitive trail or travel way may require

- Extending the current fire road from its terminus to connect with the water storage facility service road
- Construction of this road, primitive trail or travel way may reference standards that allow the safe operation of Fire Department brush trucks
- Maintenance of the security of the water storage tanks at the end of the existing service road through limiting access to this site
- Seeding the surface of this road with native grasses to prevent erosion and the establishment of exotic weeds
- Runoff and erosion be minimized through proper design and maintenance of the roadway(s), primitive trail or travel way
- That every effort be made to minimize the visual impact of this road, primitive trail or travel way to the hill and preserve the natural character of Tubbs Hill

2. Manage Fuels on the Site The danger of uncontrolled wildfire should be mitigated by managing the fuel loads and structure of the fuels on Tubbs Hill. Activities involved with managing the fuels on Tubbs Hill include

- Creating and maintaining an uneven-aged, diverse, open canopy mixed coniferous forest through habitat management
- Annual monitoring of fuel accumulations including mapping of areas with excessive buildups of woody debris and the removal of excess materials or changing the structure of the fuels to inhibit wildfire
- Accelerating the decomposition of dead wood by cutting up downed trees to increase ground contact along with chipping and scattering branches and limbs
- The use of winter burning of slash piles created during fuel reduction projects in specific areas
- Accurate GPS mapping and documentation of areas subjected to fuel reduction projects and wildfires so that accurate assessments can be made

3. Create and Maintain Defensible Space To protect private and public property on Tubbs Hill and to better enable fire fighting personnel and apparatus to access, contain and extinguish wildfires, the creation and maintenance of strategically located defensible space is critical. Specific recommendations related to creating and maintaining defensible space on Tubbs Hill include

- Reducing fuels within 30 feet of primary service roads through the use of selective vegetation management by removing vegetation subject to becoming flashy fuels, removing ladder fuels and eliminating excessive fuel accumulations by chipping and scattering debris
- Creating a 100 foot wide strip of defensible space adjacent to residential development on the north side of Tubbs Hill near the base of the hill through the use of selective vegetation management
- Maintaining planned defensible space by the annual retreatment of existing defensible space

4. Partner with Other Agencies and Organizations to Mitigate Deficiencies Tubbs Hill is located largely on a peninsula in Lake Coeur d'Alene. Access to the lake by fire boats is highly desirable. Both Kootenai County Fire and Rescue and The Coeur d'Alene Fire Department own and maintain fire boats. As the Coeur d'Alene Fire Department is primarily trained and equipped to suppress structure fires, it is beneficial to partner with organizations that specialize in suppressing wildfires.

- Work with the Coeur d'Alene Fire Department to find suitable locations to access the site and to potentially use as access points and staging areas
- Maintain interagency assistance agreements with the U.S. Forest Service, the Idaho Department of Lands, and other agencies
- Work with the Idaho Department of Lands to create accurate and current fuel model assessments of Tubbs Hill to determine the estimated intensity and rate of spread of wildfires based on existing conditions
- Seek out and utilize the best advice and assistance to implement fuel reduction projects
- Continue efforts to educate the adjacent property owners and nearby residents on preventative measures they can take to protect their property by working with the Coeur d'Alene Fire Department

5. Improve Access to the Site for Emergency Services In addition to connecting the water plant service road to the fire road, additional improvements should be made to existing park service roads. Improvements to the existing park service roads should

- Investigate methods of mitigating the excessive slope of the fire road at the point where it connects to Pine Avenue and if feasible implement the most practical and unobtrusive option
- Improve the clearance at the designated turn around points through selective and limited vegetation thinning
- Improve the surface of the road through selective actions including rock removal, grading, and filling holes
- Maintain the unobtrusive appearance of the fire road by leaving low ground covers in place

6. Install a Dry Fire Hydrant. At the 3<sup>rd</sup> Street entrance to Tubbs Hill next to the mooring docks, an opportunity exists to create an alternative source of water for fire-fighting personnel to access. It is possible to install a dry water hydrant at this location which would provide an unlimited supply of lake water that can be pumped out and used by fire-fighting apparatus. This dry hydrant should

- Utilize a connection to lake water with a filter screen
- Be compatible with standard fire-fighting apparatus connection systems
- Be placed in an easy to reach location, close to the trail entrance for Tubbs Hill and easily accessible to fire-fighting apparatus
- Be independent from any potable water system and isolated from them to avoid cross contamination

7. Regulate Incompatible Uses In order to minimize the incidence of human-caused wildfires on Tubbs Hill, certain activities should be prohibited such as unauthorized camping, illegal fireworks use, and illegal dumping of trash and debris. To protect the site from wildfires the following regulations need to be adapted and enforced

- Continue enforcing the prohibition on the use and possession of all fireworks
- Continue enforcing the prohibition on any camping on the site
- Continue enforcing the prohibition on the use of open fires
- Continue enforcing the prohibition on the use of grills for picnicking as well as not providing them for public use
- Continue enforcing the prohibition on the dumping of trash and debris on the property and monitor areas where this has occurred
- Consider closing the site to public use during periods of extreme fire weather events as defined by the Idaho Department of Lands and through order of the Coeur d'Alene Fire Department

# ***Site Access and Connectivity***

## **Existing Site Access**

Existing public access to the natural area on Tubbs Hill is provided through off-street parking lots located south of Front Street on the north side of the hill and off of Lakeshore Drive in East Tubbs Park. Entrances to the trail system are located next to the boat mooring docks at McEuen Field and at East Tubbs Park. These entrances to the trail system are clearly marked and signed. An approximately two mile main loop trail encircles the hill providing scenic views of the lake, providing access to several beaches and connecting the various access points to Tubbs Hill. A secondary trail over a mile long traverses the hill from north to south and accesses the summit. Spur trails at various locations provide other access.

## **Trailheads**

Currently there are two primary trailheads that provide access to Tubbs Hill. Located at McEuen Park, the main trail entrance to the hill is located at the south end of 3<sup>rd</sup> Street. Interpretive signs are located at this access point. A second trailhead is located at East Tubbs Park on East Lakeshore Drive in the Sanders Beach neighborhood on the east side of the hill. This trailhead was developed over the past decade on an old water department site that was once used as a fish hatchery. East Tubbs Hill Park was created specifically to serve as an access point for hiking Tubbs Hill. It contains a parking lot, drinking fountain and restroom shelter in addition to public art and educational signs. Well-maintained and used trails originating at the south and north ends of East Tubbs Park connect the main loop trail to the parking lot via a paved walkway.

## **Trails**

The main "loop trail" circles the hill (approximately 2 miles) following the lakeshore, and has numbered points that correspond to an interpretive brochure. There are two bridges along this trail, a stationary bridge near the 10th Street entrance, and a swinging bridge near interpretive post 18. The surface of the swinging bridge can become slippery in inclement weather. A rough trail, created by public use to bypass the swinging bridge was improved to the standards of the main loop trail and provides an alternative to crossing the swing bridge. There is also a short section of boardwalk constructed over a seasonally wet area near marker 17. A longer boardwalk section near the 10th Street entrance was removed after drainage improvements were made to that section of the trail. An alternate trail that goes over the hill's summit starts above the Tubbs Hill Road

near interpretive post 23, crosses the summit in a north-south direction, and intersects the loop trail at interpretive post 13 on the southeast side of the hill. There is a connecting trail from the summit trail to the fire road, and the loop trail near 3rd Street. With the exception of the above-mentioned constructed surfaces, trail surfaces are dirt and rock native to the hill. The loop trail is suitable for nearly all walkers of all ages with minimal exertion. The summit trail is steeper and physically more challenging and is classified as a technical trail. Parts of the steeper sections of the summit trail are suffering from moderate erosion. The spur trail connecting the main loop trail to the city hall parking lot is poorly located and the upper portion has a severe erosion problem. The Tubbs Hill trails do not meet handicapped accessibility guidelines due to some narrow widths and rough trail surfaces. These impediments are mostly caused by natural rock outcroppings. The steep section of trail at the 3rd Street entrance, although short in length, makes it difficult for some people to access trail sections that, once reached, are fairly level and easy to walk on. Main trail access points are located at 3rd Street next to the mooring docks and at East Tubbs Park off of 10<sup>th</sup> Street. In addition, trails can be reached from Tubbs Hill Road (the extension of Pine Avenue) and from the fire road. There are many secondary trails created by public use. Some are so well-used that tourists and other users unfamiliar with the hill sometimes leave the main trail without realizing it. A city ordinance prohibits the use of bicycles or motor vehicles on any publicly-owned portion of Tubbs Hill except on the public section of Tubbs Hill Road. Despite the posting of this prohibition, bicyclers do use the trails and gated roads as well as off-trail areas. This has resulted in some damage to trail and off-trail areas. Heavy trail use by hikers, especially on steeper trail sections, has also contributed to trail compaction and erosion.

## **Service Roads**

The water reservoir road is negotiable by most vehicles but access is restricted. The lower section of the road crosses private property and is gated at two points to prevent access by unauthorized vehicles. Signs directing trail users away from private property have been placed where the main trail crosses the water service road in order to discourage foot use of the lower section of that road. The fire road starts at the end of Pine Street. A steep pitch at the entry of the fire road is the most difficult section and has some minor erosion problems. At the end of the road a small loop provides space to turn vehicles around. This road is judged by the Fire Department to be sufficient for use by large 4-wheel drive "brush" fire vehicles. This road is also gated to prevent access by unauthorized vehicles.

## **Accessibility**

Tubbs Hill is presently the most heavily-visited natural area in Coeur d'Alene. Because of its proximity to the central business district and the lakefront as well as ease of access from developed public parks, visitation on this site by trail users can be very high, especially in the summer months. Public use of Tubbs Hill is concentrated on the

shoreline and on the west side of the hill. Improvements to the existing trail system related to safety and environmental concerns can also provide access to the interior of the site for those seeking a greater amount of solitude. Due to physical constraints of the existing trail system, none of the trails on Tubbs Hill are currently classified as accessible. In 2011, an Ad-Hoc committee was formed to make recommendations to the Parks and Recreation Commission and ultimately the City Council, related to improving access to Tubbs Hill for our citizens and visitors with mobility impairments. The recommendations of this committee should be implemented to provide access to Tubbs Hill for a larger segment of our population. Recognizing that our community is made up of people with all levels of physical ability and different needs, the city needs to work towards creating and maintaining a mix of trail diversity that ranges from very accessible to challenging.

## **Recommended Management Actions**

Encouraging the responsible use of Tubbs Hill for a wide range of citizens and visitors, while preserving the natural environment, is an important goal of the management plan. In order to create and maintain the conditions that allow the public to experience Tubbs Hill in a safe and enjoyable manner while protecting the natural habitat and landscape that make it a special place, the Parks Department needs to take the following actions.

1. Implement the Recommendations of the Ad-Hoc Accessibility Committee. In 2011, an Ad-Hoc committee was formed to make recommendations to the Parks and Recreation Commission and ultimately the City Council related to improving access to Tubbs Hill for our citizens and visitors with mobility impairments. Based on the recommendations of this committee the Parks Department should

- Implement the Accessible Trails Committee's recommendations related to improving the existing trail from East Tubbs Park in a southeasterly direction to the point near interpretive trail marker # 14 where there is a southern panorama view of Lake Coeur d'Alene.
- Reduce excessively steep sections through the construction of retaining structures, filling areas with natural materials and selective rock chipping
- Widen selected areas of the trail to meet minimum width requirements and to provide for turnouts at regular intervals
- Construct this trail to be as accessible as the terrain and site conditions allow
- Create signage to identify this trail as an accessible trail at East Tubbs Park
- Monitor construction and use of this trail to determine if additional accessible trails are desirable or necessary through a public process similar to that used on the east side trail

2. Minor Improvement to the Existing Trails. The existing two to three miles of maintained trails were constructed over the past twenty years. As public use of this trail system has increased, minor deficiencies have become evident and need to be

addressed. These deficiencies need to be identified through the regular inspection of this trail system and rectified by

- Locating any areas where runoff has or is creating washouts and building drains, swales, and retaining structures as needed to repair and eliminate the problem
- Rerouting of short sections of the trail where grades exceed recommendations and/or in areas where minimum width requirements are not being met
- Adding natural surface material to any sections with excessive erosion and in areas where excessive moisture creates extended muddy conditions
- Blocking unauthorized trails with natural vegetation and materials such as boulders and logs found on the site to encourage the eventual re-vegetation of these areas
- Mitigate severe erosion on the summit trail by creating steps. This will also serve to discourage bicycle use

3. Mitigate Unauthorized Trails Numerous unauthorized and unplanned trails have become established on Tubbs Hill over the past decades. Some of these trails have caused environmental degradation through being routed on sensitive habitat and have created erosion problems by not being constructed to approved standards. The parks department needs to document these trails and accurately map those using GIS and use that information to determine the best course of action to remediate the problems associated with each trail. In the past, efforts have been made to eliminate these trails with generally unsatisfactory results. A determination needs to be made for each identified trail to ascertain if the trail in question should be eliminated or modified based on the level of use, the points connected and the extent of undesirable effects on the landscape. Based on the conditions of each trail actions should be taken by

- Mitigating runoff concerns through installation of barriers utilizing natural materials from the site such as boulders, rocks and large diameter logs to prevent the expansion of washouts and gullies
- Replanting old roadways and trails with natural vegetation with an emphasis on shade-intolerant trees such as ponderosa pine, western white pine and western larch.
- Seeding open areas on old roadways and trails with native grasses and forbs
- Blocking unauthorized trails through the strategic placement of on-site logs, rocks and brush
- Rerouting overly-steep sections of highly used unauthorized trails to avoid creating erosion and improving safety

Of particular concern is an unauthorized trail connecting the turnaround at the end of the fire road with the loop trail on the east side of the hill, the presence of which has created negative environmental conditions and safety concerns. This trail is extremely steep and heavily used by illegal mountain bikers and lost hikers. This trail should be blocked off and use of an alternative route from the turnaround down to the loop trail should be encouraged. The proposed fire road extension would effectively guide trail users back to the main loop trail.

# ***Public Services and Amenities***

## **Existing Public Facilities**

The existing public amenities on Tubbs Hill are limited to structures related to stabilizing and preserving the main hiking trail, several small foot bridges on the trail system and directional signage. It has been the policy of the Coeur d'Alene Parks Department to keep Tubbs Hill in as natural a state as possible while still providing public access by limiting site amenities and structures to public facilities outside the natural area. These are located at the base of the hill, including McEuen Field and East Tubbs Park. In the past, Tubbs Hill had various structures such as grandstands used to view boating events and fireworks displays, a flag pole and garden area at the summit and at least one private residence above Corbin Point.

There is private property remaining within the public property on the hill with five residences located on the south side of Pine Avenue, west of 8<sup>th</sup> Street (this extension of Pine Avenue is also known as Tubbs Hill Dr.). Two of the three residences located on the north side of Pine Avenue, west of 8<sup>th</sup> Street were purchased by L.C.D.C. in 2010. Additional homes and properties adjoin Tubbs Hill south of Pine Avenue between 8<sup>th</sup> and 10<sup>th</sup> Streets. Other structures on the hill include a water reservoir, a water tank, and a water pump station (east side). A Washington Water Power (Avista) depth gauge in the lake at the east side has some historical significance.

Developed amenities are provided around the borders of Tubbs Hill. Paved parking is provided south of Front Street, next to City Hall, and off of Lakeshore Drive at East Tubbs Park. Public restrooms are located within McEuen Park and East Tubbs Park. Maps of Tubbs Hill and trash receptacles are located at the 3<sup>rd</sup> Street and 10<sup>th</sup> Street entrances to the trails.

Recreational use of Tubbs Hill is high, consisting mostly of hikers and beach users. The west side of the loop trail receives the most use. A self-guided tour publication, Nature Trails, has information which corresponds with numbers located along the loop trail and is available through the Parks Department office, City Hall, and Chamber of Commerce Visitors Center.

Maintenance on the hill itself is performed by the Coeur d'Alene Parks Department staff as needs are identified. Volunteer groups, such as Friends of Tubbs Hill, Idaho Drug Free Youth, Panhandle Kiwanis, and the Juvenile Diversion program of the Kootenai County Sheriff's Office, helped at various times with projects including litter pick-up and trail maintenance.

## Recommended Management Actions

Recreational use of Tubbs Hill is likely to continue to grow. A desirable future view includes a minimum of conflicts between recreational users and private property holdings on and surrounding Tubbs Hill. To maximize natural experiences, man-made structures will be kept to a minimum and those that exist will be as aesthetically unobtrusive as possible. The amenities needed to support the users will continue to be in the border areas in order to maintain the natural feel of the hill. The amenities to be optimized in the border areas include parking, restrooms, trash receptacles, picnic facilities, water fountains, and maps of Tubbs Hill. User loads will be dispersed over the hill in order to minimize environmental impacts and maintain high quality recreational experiences. Conflicts between user groups (hikers, dogs/hikers, boaters/beach users) will also be minimized. Negative impacts caused by users such as litter, graffiti, campfires and fireworks, will be minimized. Those impacts that do occur will be mitigated in a timely manner to the greatest extent possible. Amenities will receive regular maintenance to keep them in a clean and aesthetically pleasing condition. The involvement of volunteers to pick up litter and accomplish improvements on Tubbs Hill will be continued and expanded. This not only increases the amount of work that can be accomplished, but also engenders within the volunteers an awareness and appreciation of this resource within the community.

1. Additional Amenities on the Existing Property There is a need for the following amenities on the existing site

- Increased directional signage utilizing routed plastic sheets with white text on a brown background, the same as the existing signs
- A trail map sign at the city park entrance to the existing trail system with a protective kiosk able to support informational materials and constructed of natural materials to blend in with the site
- Establish “Pack it in and pack it out” trail bag stations at the park entrances

2. Maintain the Existing Amenities To mitigate the effects of public use and user group conflicts on Tubbs Hill, the parks department should

- Continue efforts to educate citizens of the care needed by visitors to maintain the natural setting of Tubbs Hill and ordinance restrictions regarding use
- Continue offering the self-guided Nature Trails brochure and maintaining the numbered markers on the loop trail
- Support volunteer interpretive programs that periodically offer organized wildflower walks, bird-watching tours, historical walks, etc.
- Work with volunteer organizations such as the Tubbs Hill Foundation, The Friends of Tubbs Hill and other service groups to organize projects such as litter pick-ups and trail maintenance and recognize these efforts
- Continue to support cooperation with fund raising efforts for Tubbs Hill, Inc. to finance property acquisition, park facilities and other management/maintenance tasks identified in this management plan.

- Consider purchase of adjacent properties as they become available

## **B. Fernan Lake Natural Area**

### ***Introduction***

4. *Site Description*
5. *Goals*

### ***Habitat Management***

4. *Natural Habitat Description*
5. *Recommended Management Actions*

### ***Wildlife Management***

3. *Wildlife Management on the Fernan Open Space*
4. *Recommended Management Actions*

### ***Fire Prevention and Protection***

3. *Site-specific Fire Dangers*
4. *Recommended Management Actions*

### ***Access and Connectivity***

3. *Existing Site Access, Trails, and Service Roads*
4. *Recommended Management Actions*

### ***Public Facilities***

3. *Existing Public Facilities*
4. *Recommended Management Actions*

# Fernan Lake Open Space Trails and Roads



Fernan Lake

Kootenai County  
Fernan Lake  
Boat Ramp

Connection to  
Fernan Village

Fernan Open Space

Maintain  
Access for  
Emergency  
Services

Shoreside Access

White Pine  
Restoration

Proposed  
Hiking Trails

Eagles Nest

Buffer Zone for Eagles Nest

Area Maintained as Defensible Space

Possible Expansion

Connection to  
Silver Beach

## Legend

-  Park Boundary
-  Eagles Nest
-  Eagles Nest Buffer Zone
-  Proposed Hiking Trail
-  Proposed Hiking/Biking Trail
-  Proposed Parking Lot
-  Buffer Zone

98

190

# ***Introduction***

## **Site Description**

The 54-acre Fernan Lake Natural Area was acquired by the city in two separate transactions. The original 47 acres was donated to the city by three residents of Fernan Village in 2008 for the purpose of preserving the property from development and providing public access to the site. This 47-acre parcel lacked access to public roadways, severely handicapping the city's efforts to provide recreational opportunities for the public on this site. A narrow strip of privately-owned forest land south of the site separates the western half of the original 47-acre parcel from Potlatch Hill Road. The remainder of the south side of the 47-acre parcel is bordered by private residences. In 2011, the city purchased a parcel of seven adjacent acres for \$475,000. This parcel has direct access to Potlatch Hill Road and is adjacent to extensive properties associated with the easement for Interstate 90 which is owned by the Idaho Transportation Department. It also shares a common boundary with the original 47-acre parcel. The Fernan Lake Natural Area is located on the south shore of Fernan Lake and includes approximately 4200 feet of shoreline. Fernan Lake is a 381-acre body of water with a watershed of 12,038 acres and 5.4 miles of shoreline. The lake averages 19 to 20 feet deep with a maximum depth of 28 feet. The lake is a direct source of recharge for the Rathdrum aquifer and designated beneficial uses include cold water aquatic habitat, salmon spawning, primary contact recreation and domestic water supply. Although Fernan Lake is one of the most productive fisheries in the state of Idaho with over 23,000 fish stocked annually, the lake is eutrophic, meaning that excessive nutrients combined with shallow depth and periods of warm weather regularly cause algae blooms that degrade water quality and are harmful to wildlife and potentially to human health. The key to protecting the lake is to prevent sediment and runoff containing nitrates and phosphates from reaching the water.

The shoreline includes two well-defined coves: a western cove located directly across the lake from Kootenai County's Fernan Village boat ramp and an eastern cove situated about 900 feet east of the western cove and separated from it by a high ridge. The western shore of the lake is part of an ITD easement that connects the Fernan Lake Natural Area to the Kootenai County boat ramp. In addition to the lakeshore, the Fernan Lake Natural Area has a seasonal creek running from the southeast to the northwest starting in the draw behind the Armstrong Park subdivision and heading towards the western cove. The Fernan Lake Natural Area is located on the steep north-facing slope of Potlatch Hill and varies in elevation from 2125' at the shore of Fernan Lake to 2560' above sea level at the site's high point near the eastern property line. Most of the site is extremely rugged with slopes in excess of 35% containing rock outcroppings and cliffs. Relatively level areas are located under an Avista Power Corporation easement in the southeast corner of the property and at the seven-acre addition adjacent to Potlatch Hill

Road. The majority of the property is covered with natural vegetation and site improvements are very limited. In addition to an Avista Power Corporation easement, there is a Verizon telephone line above ground that crosses the lake from the Kootenai County boat ramp and traverses the site north to south towards Potlatch Hill Road. Additional improvements include a small service road between the Armstrong Park RV lot to the utility poles in the Avista easement and a small parking area off of Potlatch Hill Road in the seven-acre addition that is suitable for four to five light vehicles. This lot is bordered by steel poles connected by a chain to prevent unauthorized persons from driving further into the site. Parks department employees have written permission to access the property through the RV lot from the Armstrong Park Home Owners Association.

## **Goals**

The Coeur d'Alene Parks Department, working with other organizations, will balance the need to provide meaningful public access with protecting the natural environment and wildlife on the Fernan Lake Natural Area. The Fernan Lake Natural Area will be managed to provide a safe environment for public use. Steps should be taken to restore the natural habitat by creating and maintaining a diverse, uneven-aged, open-canopy coniferous forest with the tree species most suitable to each location on the site. Actions need to be taken to protect wildlife in general and specific animal species present on the site such as Bald Eagles. These actions may include, but not be limited to, restricting access to part of the property. Measures to mitigate the danger of uncontrolled wildfire need to be put in place. Connecting this property to other publicly-owned lands and to the community should be a major element of this management plan. Providing public access for all of our residents and visitors regardless of ability is an important consideration of any plan to develop this site. Making this property available to the public and putting into place facilities to support the public's use of the property, while maintaining its natural attributes and protecting its wildlife, will be an important part of the recommended management plan of the Fernan Lake Natural Area. The Coeur d'Alene Parks Department should work with Kootenai County Parks and Waterways and the Idaho Transportation Department to create a comprehensive plan to connect these properties to the larger community.

# ***Habitat Management***

## **Natural Habitat Conditions**

The existing habitat consists primarily of mixed coniferous forests with areas on the higher ridges dominated by open ponderosa pine forest and more sheltered locations largely covered with grand fir and Douglas-fir. There are also areas of western redcedar, western larch and a handful of mature western white pine. The entire site has been selectively logged within recent decades. However, the seven-acre addition on the west end of the Fernan Lake Natural Area has been logged more extensively and has a noticeable lack of mature trees. This area of the property also has the most extensive problems with invasive weeds. The ponderosa pine habitat concentrated on the higher ridges is generally open and in good condition. Areas of the site covered with this habitat have a mix of all ages of ponderosa pines, with scattered western larch, western white pine, and fir. The ponderosa pine habitat in the Fernan Lake Natural Area has an open canopy with an understory consisting of native grasses, forbs, and shrubs. Areas of the Fernan Lake Natural Area dominated by grand fir and Douglas-fir are found in the more sheltered areas of the site and have developed into a closed-canopy forest. Areas of closed-canopy fir are experiencing root rot throughout the property indicating that these trees were not originally on the site in their present densities and have taken advantage of fire exclusion to develop into large stands. An area that appears to have been dominated by western redcedar exists in the valley associated with the western cove. This area was extensively logged less than ten years ago leaving the stumps of a redcedar forest as well as many small and immature cedars. Immediately south of this site on private property there is still a large number of mature western redcedar. Western larch is found throughout the property with the greatest concentrations along the southern property line. A few mature western white pines are located on the property and white pine regeneration is taking place near the shore of the western cove. Western white pine forest was likely much more prevalent on the site, based on environmental conditions such as north facing slopes, adequate moisture, and understory vegetation as well as historical knowledge of the range and extent of this habitat. To meet the management goals for the Fernan Lake Natural Area relating to natural habitat the following management actions should be taken:

## **Recommended Management Actions**

In order to improve the natural habitat on Fernan Lake Natural Area the following activities need to take place

1. Habitat Map A map should be made delineating the extent of the primary natural habitats found on all 54 acres of the Fernan Lake Natural Area based on a comprehensive field survey. This habitat map should

- Include boundaries showing the dominant habitat in each area of the site such as ponderosa pine and Douglas-fir/grand fir mixed coniferous forest
- Indicate various stand densities within the different habitats and define areas of closed and open canopies
- Show the location of noteworthy plants including the trees associated with eagle nests and heron rookeries, remaining mature white pines, and any rare or endangered understory species present on the site
- Display areas with invasive and exotic weeds and identify those weeds

2. Western White Pine Restoration: The parks department should work on restoring western white pine to the Fernan Lake Natural Area. Efforts to reintroduce western white pine in its historic range on the property should

- Use blister rust-resistant seedlings and practice accepted sanitation methods such as pruning
- Take place initially around the existing remnant of western white pine found on the site
- Occur as part of an effort to reforest the heavily-logged area in the seven acre addition to the site
- Be part of any effort to increase forest diversity in area of Douglas-fir and grand fir that are removed in the future due to insect and disease such as root rot

3. Control Exotic and Invasive Weeds and Plants: A program to control and eliminate exotic and invasive weeds should be developed and implemented on the Fernan Lake Natural Area. An exotic and invasive weed control program will require that

- Areas of exotic and/or invasive weeds on the site are documented and that the specific species of weeds are identified
- Control methods for each identified exotic and invasive weed are researched and investigated
- The best control method for each species be implemented based on priorities established by funding limitations, immediate threat of the exotic or invasive weed, and location of the pest
- Areas of invasive and exotic trees be identified and steps taken to eliminate these invasive species.

4. Protect the Natural Habitat by Expanding the Fernan Lake Natural Area: To preserve the integrity of the site and to protect the aesthetic and natural assets from incompatible uses of adjacent properties the city should

- Explore the possibility of acquiring the parcel of land south of the Fernan Lake Natural Area and north of Potlatch Hill Road.
- Look into securing a conservation easement on this parcel if acquisition of the above property is not feasible
- Work with the Armstrong Park Home Owners Association to maintain compatible management of their adjacent buffer-preserve properties

# ***Wildlife Management***

## **Wildlife on the Fernan Lake Natural Area**

The Fernan Lake Natural Area is home to a wide variety of wildlife. In addition to insects, amphibians, reptiles, numerous species of birds and small mammals, important animal species affecting the management of the site include moose, elk, herons, and Bald Eagles. Moose have been documented on the site for many years. Because of their size and unpredictable nature, moose and elk can pose a significant threat to human safety. These large animals need space and if they are found in areas frequented by the public, steps need to be taken to promote safety and awareness. A Great Blue Heron rookery is located on the high ridge between the two coves. In recent years this rookery (nesting colony) has supported up to twenty-eight nesting pairs of herons and their offspring. Over the past years this rookery has experienced a significant decline due to natural factors including predation. One of the large ponderosa pine that supported many of the nests recently died and a nesting pair of Bald Eagles has been preying on the young herons. Within the last year (2011), the Bald Eagles took up residence on the property and constructed a nest about 500 feet southeast of the heron rookery. This pair has successfully hatched one eaglet. Bald Eagles are classified as a threatened species and are protected by federal laws. The state of Idaho also has guidelines relating to the protection of Bald Eagles.

The Fernan Lake Natural Area is a very small part of the Fernan Lake Watershed. This entire area is discussed in the [Fernan Lake Watershed Management Plan](#). Several species of animals that are included in the watershed are very unlikely to exist in the Fernan Lake Natural Area because the 54 acres are close to Coeur d'Alene, human habitations and US Hwy 90.

Attached are species lists seen over the previous 18 years (1993-2011.) Some of these species are one-time sightings or fewer than 5 sightings. Several of the large herbivores such as elk, which frequented the area, seldom do now because of more homes which cover favorite bedding spots and interrupt game trails. The community bordering the 54 acres (Armstrong Park) still harbors numerous white-tailed deer, Wild Turkey and many other species of birds. Black bears are common visitors to the site.

FireSmart trimming and cutting of undergrowth is present but still minimal. It definitely removes cover for ground-nesting birds and some mammals, as well as browse for the herbivores and a base for many sustaining insect species. Extensive plant removal on the 54 acres could have an impact on the wildlife.

At this time there are adequate snags left from previous management practices. They

should be retained as there are fewer and fewer large trees and most new snags are small to medium in size. Snags are important to many forms of wildlife because they provide shelter and host insects for food.

The Great Blue Heron rookery on the southwest end of the lake has varied from 12-28 active nests. The birds appeared approximately 12 years ago. Last year the appearance of the pair of Bald Eagles had a serious impact on the future of the rookery. It is very likely that the rookery will not survive.

The pair of Bald Eagles has remained in the area and nested this spring (2011). A nest on the property requires federal and state adherents to encroachment guidelines and some limits to human activity, primarily during nesting season from February 1 to August 15. The nest has been identified and will continue to be observed for nesting activity each spring (2011). The location is centered on the slope above the eastern bay. This will impact the location of trails and the plans for any trail leading from that bay. It has been recommended by the Idaho Department of Fish and Game that plans for any trails into the property be postponed for at least two years (until the fall of 2012) in order to give the eagles a chance to establish their territory. Once they have done this, they are more likely to be bonded to the site, regardless of some human activity.

#### **Birds of the Fernan Lake Natural Area**

B indicates breeding record

(Nest or young observed.)

- Northern Saw-whet Owl
- Great Horned Owl B
- American Goldfinch B
- Pine Siskin B
- Red-breasted Nuthatch B
- Pygmy Nuthatch B
- Bald Eagle B
- Osprey B
- Sharp-shinned Hawk B
- Cooper's Hawk B
- Ruffed Grouse B
- Wild Turkey B
- Common Raven B
- Black-capped Chickadee B
- Mountain Chickadee B
- Chestnut-backed Chickadee B
- Red-shafted Flicker B
- Hairy Woodpecker B
- Pileated Woodpecker B
- Downy Woodpecker
- Red-naped Sapsucker B
- Red-tailed Hawk
- Merlin
- California Quail B
- American Robin B
- Townsend's Solitaire
- Varied Thrush
- Swainson's Thrush B
- Western Tanager B
- Mourning Dove
- Red Crossbill B
- Great Blue Heron B
- Dark-eyed Junco B
- Cassin's Finch B
- House Finch B
- Violet-green Swallow B
- Turkey Vulture B
- Spotted Towhee B
- Steller's Jay B
- Winter Wren
- House Wren B
- Calliope Hummingbird B
- Rufous Hummingbird B
- Black-chinned Hummingbird B

- White-crowned Sparrow
- Chipping Sparrow B
- Yellow-rumped Warbler B
- Nashville Warbler
- Yellow Warbler B
- MacGillivray's Warbler
- Townsend's Warbler B
- Orange-crowned Warbler
- Gray Catbird B
- Cassin's Vireo B
- Warbling Vireo
- Ruby-crowned Kinglet
- Golden-crowned Kinglet B
- Hammond's Flycatcher
- Cordilleran Flycatcher B
- Brown-headed Cowbird B
- Red-winged Blackbird
- Double-crested Cormorant
- Common Merganser
- Common Goldeneye
- Bufflehead
- Mallard
- Red-necked Grebe B
- Common Loon
- Horned Grebe
- Ring-billed Gull
- Canada Goose B
- Cedar Waxwing
- Bohemian Waxwing
- Evening Grosbeak B
- Black-headed Grosbeak B
- Belted Kingfisher
- Western Wood Pewee B
- Olive-sided Flycatcher
- Song Sparrow B

OCCASIONAL VISITORS (Observed fewer than 5 times)

- Western Grebe
- Tundra Swan
- Rough-legged Hawk
- Common Redpoll
- Least Flycatcher
- Western Bluebird
- Lazuli Bunting
- Prairie Falcon
- Gray Jay
- Red-eyed Vireo
- American Redstart
- Bonaparte's Gull
- Virginia Rail (B – chicks observed)

**Mammals Reptiles and Amphibians** seen in the Fernan Lake watershed since 1993

- Black Bear
- White-tailed Deer
- Elk
- Moose
- Bobcat
- Cougar
- Snowshoe Hare
- Short-tailed Weasel
- Columbian Ground Squirrel
- Red Squirrel
- Porcupine
- Chipmunk
- Short-tailed Shrew
- White-footed Mouse
- Gopher
- Red Fox
- Beaver
- Muskrat
- Skunk
- Raccoon
- Coyote
- Bats – several species
- Western Toad
- Rubber Boa
- Garter Snake
- Blue-tailed Skink
- Yellow-bellied Marmont
- Western Chorus Frog

**Fish** species in Fernan Lake include

- Rainbow trout
- Cutthroat trout

- Channel catfish
- Brook trout
- Largemouth bass
- Bullhead catfish
- Crappie
- Perch
- Northern pike
- Pumpkinseed

## **Recommended Management Actions**

To meet the management goals of the Fernan Lake Natural Area relating to wildlife management, the following management actions need to be taken:

1. Protection of the Bald Eagles Steps to protect the nesting pair of Bald Eagles and their offspring should be taken. These steps need to include

- Following federal and state laws relating to the protection of threatened animal species
- Establishing buffer zones around the nest and placing these areas off limits to the public during the critical nesting season (February 1 to August 15) in accordance with federal and state guidelines
- Posting signs at critical locations warning the public to stay out of the buffer zone for the nest including at the shore of the eastern cove and along the eastern edge of the seven-acre addition
- Refraining from developing trails east of the ridge separating the eastern and western coves until the Bald Eagle nest is no longer active or it can be demonstrated that additional trails can be developed without adversely impacting the eagles
- Locating any future trails at least 330 feet from and out of direct visual range of the nest
- Installing an interpretive sign about the Bald Eagles that would be located near the entrance to any future trail system or parking area

2. Protection of Aquatic Animal Species in Lake Fernan: To protect the water quality of Fernan Lake from degradation it is important to

- Prevent runoff with nutrients or sediment from entering the lake by making sure all improvements to the property are completed using sound construction methods and design standards
- Leave trees within 100 feet of the lake's shoreline to reduce runoff and limit erosion
- Identify the source of the stream on the property and follow all guidelines to protect the water quality of this body of water

# ***Fire Prevention and Protection***

## **Site-specific Fire Issues**

The Fernan Lake Natural Area is rated as an extreme fire hazard by the Coeur d'Alene Fire Department. The site is located in the Armstrong Park Wildland-Urban Interface. Identified deficiencies related to preventing and suppressing wildfires include

- Extreme slopes in excess of 30% from the shore of Fernan Lake to the south side of the property adjacent to Armstrong Park
- Adjacent residential development including several residences abutting the property
- Limited access to the area based on one serpentine narrow two-lane road with grades in excess of 7% and bordered by areas of heavy vegetation
- No secondary identified usable route to evacuate the area
- Lack of access into the interior of the Fernan Lake Natural Area and a lack of defensible space within the property
- Limited water supply of 180,000 gallons with no hydrants within a half mile of the west end of the property
- Very heavy fuel accumulations in parts of the property

In 2112, the Idaho Department of lands created three fire behavior models for the Potlatch Hill-Armstrong Park area, one of which was based on a fire originating in the Fernan Lake Natural Area.

## **Recommended Management Actions**

To mitigate the danger from uncontrolled wildfires on the Fernan Lake Natural Area, the following management actions should be completed

1. Provide Access Areas Making provisions for fire fighters and firefighting equipment to have access with defensible space within the Fernan Lake Natural Area is an important goal of any management plan for this site. Plans to provide access areas should include:

- Maintaining the existing service road to the utility poles in the Avista easement to a width of 12 feet adequate for woodland fire engines used by the Coeur d'Alene Fire Department and other local agencies.
- Creating and maintaining at least 30 feet of defensible space on each side of this entrance road by using selective vegetation management
- Maintaining an area at the terminus of this access road at least 100 feet by 100 feet east of and not under the Avista utility lines by trimming trees and selective vegetative management
- Working with the Armstrong Park HOA to maintain a fire lane through their RV lot so that the emergency personnel can access the site
- Constructing a parking area in the seven-acre addition large enough to accommodate firefighting equipment including fire engines

- Maintaining at least 50 feet of defensible space around this parking lot, including 50 feet on each side of any entrance road to this site, by using selective vegetation management

2. Create and Maintain Defensible Space in Areas Adjacent to Residential Development.

Several residences are immediately adjacent to the Fernan Lake Natural Area and need to be protected from wildfire. Even non-adjacent properties are at risk and steps to protect all houses in the area should be taken. This can be accomplished by

- Creating a strip of defensible space at least 50 feet wide behind private residences in Armstrong Park through the use of FireSmart to selectively remove fire-prone shrubs, ladder fuels, large accumulations of dead wood and selective tree removal
- Maintaining this 50-foot buffer by using selective vegetation management on a regular basis
- Encouraging the adjacent home owners as well as all residents of the area to participate in this project by using these methods on their properties and using practices such as not storing flammable materials near structures and maintaining green lawns next to their houses

3. Construct a Trail System. Any trail system that is constructed to allow public access to the site should also be designed to accommodate the occasional use of authorized ATVs by emergency personnel so that interior portions of the property can be accessed to provide for monitoring, medical evacuation, and assisting with fire suppression through

- Construction of foot-trails with wide enough clearance so as to not prevent the occasional use of authorized ATVs by emergency personnel
- Use of reasonable grades and avoidance of narrow switchbacks that would prevent the emergency use of authorized ATVs
- Locating at least one trail to the waterfront on the west end of the property
- Designing and constructing the proposed multi-use trail from the Fernan boat ramp to the trailhead off of Potlatch Hill Road so that authorized ATVs can access the site
- Identifying any sections of the trail system that cannot be built to accommodate the emergency use of authorized ATVs most likely due to the restrictions imposed by the terrain, and clearly communicate that information to the Coeur d'Alene Fire Department

4. Reduce Fuel Load on the Property To reduce the potential severity of wildfires on the Fernan Lake Natural Area the amount and structure of the existing fuels on the site should be modified. This should take place by

- Creating and maintaining a diverse, uneven-aged, open-canopy forest as part of the natural resource management component of this plan
- Removing large accumulations of dead wood while balancing the needs of wildlife by leaving snags, brush, and large organic debris where appropriate

5. Regulate Incompatible Uses In order to prevent the creation of human-caused wildfires on the Fernan Lake Natural Area, certain activities should be prohibited. The property has a history of unauthorized camping, illegal fireworks use, and illegal

dumping of trash and debris. To protect the site from wildfires, the following regulations need to be adapted and enforced

- Prohibit the use and possession of all fireworks
- Prohibit any camping on the site and the open fires associated with this activity
- Prohibit the use of grills for picnicking as well as not providing them for public use
- Prohibit the dumping of trash and debris on the property and posting areas where this has occurred
- Consider closing the site temporarily during periods of extreme fire weather as defined by the Idaho Department of Lands and through order of the Coeur d'Alene Fire Department

6. Partner with Other Agencies and Organizations to Mitigate Deficiencies There are deficiencies related to the prevention and suppression of wildfire on the Fernan Lake Natural Area and the adjacent area that cannot be mitigated by the Coeur d'Alene Parks Department alone. As part of the management of this site, the parks department needs to work with other agencies and organizations to improve conditions that adversely affect the ability to prevent, contain, and suppress wildfires. In order to mitigate these deficiencies the following needs to take place

- Encourage the Coeur d'Alene Water Department to continue their efforts to increase the water storage capacity in the Armstrong Park water system
- Work with the Coeur d'Alene Fire Department and the home owners to identify a viable secondary evacuation route off of Potlatch Hill, possibly using private roads at the east end of the development
- Coordinate with the Kootenai County Parks and Waterways Department on providing access from the Fernan Lake Boat Ramp for emergency use of the multi-use trail and the launching of the Coeur d'Alene Fire Department fire boat
- Work with the Idaho Department of lands to create fire behavior models based on the current conditions found on the site
- Work with Kootenai County and the Coeur d'Alene Fire Department to explore the possibility of installing a dry fire hydrant at the Fernan Lake Boat Ramp to provide additional and unlimited source of water near the west side of the site

# ***Access and Connectivity***

## **Existing Site Access, Trails, and Service Roads**

Presently there is no designated public access to the Fernan Lake Natural Area. Limited visitation to the property has occurred through boaters landing on and using the shoreline and from people parking in the unimproved existing parking area and walking into the site. It is likely that adjacent property owners have also visited the property to view the wildlife and scenery. The Fernan Lake Natural Area is adjacent to Potlatch Hill Road, a public roadway connecting residential areas to Lake Coeur d'Alene Drive. Immediately east of the property is a large parcel (17 acres) of undeveloped lakefront land owned by the Armstrong Park Home Owners Association and maintained as a natural buffer for that subdivision. West of the Fernan Lake Natural Area is an extensive easement owned by the Idaho Transportation Department for Interstate 90 with the potential to connect to Silver Beach and Fernan Village. Due to the extreme topography and sensitive habitat along with special restrictions pertaining to threatened animal species, public use of the property should be limited to those activities compatible with the other management goals of the site. Desired public uses of this property include hiking, nature appreciation, boating access, and fishing with the opportunity to provide bicycle parking and accessible trails utilizing the seven-acre addition and the ITD easements.

## **Recommended Management Actions**

To provide public access to the Fernan Lake Natural Area and to connect this site to other public facilities and the greater community, the following specific management actions should be completed:

1. Parking Lot. A small parking lot should be constructed on the seven-acre addition to the Fernan Lake Natural Area with access off of Potlatch Hill Road. The parking lot should have

- Approximately 12 to 15 parking spaces
- Two paved handicapped-accessible spaces
- A pervious surface to allow water to percolate, (except for the handicapped spaces)
- Physical barriers to prevent the public from driving beyond the lot and onto the site such as strategically placed boulders or log rail fence
- Adequate room to allow emergency vehicles to safely operate off the public road
- A design that allows for possible expansion of the parking lot if public use is such that this becomes necessary

- Direct connections to a multi-use trail leading to Silver Beach and the Fernan Village area as well as the hiking trail system into the property
- Adequate directional signage at the entrance to the parking lot identifying the property as publicly-owned and identifying it as a Fernan Lake overlook
- A location set aside suitable for a vault toilet if one needs to be added in the future
- Interpretive signage highlighting the eagle nest and other interesting natural features
- A plan for the Coeur d'Alene Street Department to evaluate and monitor the site after its completion to determine if there are any traffic conflicts that may require attention
- Plans to add native trees to the area around the parking lot

2. Hiking Trails: A hiking trail system should be built connecting the parking lot to the rest of the site and include access to the waterfront and possibly the property's high point in the future. The initial trail system should:

- Be designed to meet the Idaho Department of Fish and Game standards regarding heron rookeries and Bald Eagle nest sites both of which are located on the property
- Be constructed to the standards specified by the Bikeways and Trails Master Plan and the Natural Open Space Management Plan
- Be directly connected to the parking lot
- Be designed and constructed to minimize the visual impact on the natural habitat by blending into the site
- Be designed and constructed to avoid channelizing runoff and causing erosion
- Be designed to accommodate hiking but not allow mountain biking with appropriate posting
- Avoid constrictions and extremely steep slopes that could interfere with emergency personnel accessing the site
- Initially include a trail from the parking lot to the waterfront at the western-most cove located in the valley just east of the seven-acre addition
- Include a loop trail accessing the high ridge between the coves with a scenic viewpoint at that location if the heron rookery ceases to exist
- Be constructed as much as possible using volunteer labor, community service groups, and seed trail grants to reduce the cost to the city and to promote a sense of ownership of the site
- Have signs posted on the east side of the trail to prevent hiking towards the eagle nest and heron rookery

If and when the eagle nest is documented to be no longer active, or if it can be demonstrated that the trail system can be expanded without adversely affecting the nesting birds, then opportunities to increase public access could be taken, provided that demand exists by

- Constructing a trail across the site to the property's high point near the power poles in the Avista utility easement while remaining 330 feet away from the nest
- Having the trail located out of close proximity to private residences and if possible, out of visual range

- Incorporating a loop trail to prevent hikers from extending the trail on their own
- Routing the trail away from the eagle nest
- Avoiding construction of any trails during the sensitive nesting season between February 1 and August 15
- Allowing for the eventual addition of a small dock at the location where the trail accesses the shore of Fernan Lake

3. Trail from Fernan Village to Silver Beach The opportunity to construct a multi-use trail between Silver Beach and the area of the Kootenai County boat ramp in Fernan Village should be explored in cooperation with Kootenai County Parks and Waterways and the Idaho Transportation Department. A trail at this location would connect the Fernan Lake Natural Area and parking lot to the Silver Beach area and Fernan Village and allow access for residents of these communities. This trail will:

- Necessitate securing an agreement with the Idaho Transportation Department to allow an easement encroachment in order to build a multi-use trail
- Be part of a plan, developed by working with the Kootenai County Parks and Waterways Department, to create a master plan for the site which would include providing access from the boat ramp to the site
- Use the old alignment of Potlatch Hill Road from near the Beach House Marina to the existing bridge over Lake Coeur d'Alene Drive.
- Utilize the existing construction bench from the Potlatch Hill Road bridge over Lake Coeur d'Alene Drive to the I-90 bridge over Potlatch Hill Road to gain elevation at an even and reasonable grade and to separate trail users from Potlatch Hill Road.
- Utilize the existing construction benches on the I-90 easement from the area of the Fernan Lake boat ramp to the seven-acre parcel to gain elevation at an even and reasonable grade in order to avoid conflicts with the existing fishermen's trail from the boat ramp, and to avoid a sensitive section of shoreline
- Cross Potlatch Hill Road east of the I-90 underpass.
- Incorporate scenic views of Fernan Lake and the surrounding area
- Be directly connected to the parking lot, and specifically, the handicapped parking space
- Be as accessible as possible starting on the upper end adjacent to the handicapped space in the parking lot, and have a surface suitable for wheelchair use to a clearly defined end, ideally with a viewpoint and adequate room to turn around
- Be carefully designed and constructed to avoid channelizing runoff so as to not create erosion
- Utilize the seven-acre addition to incorporate switchbacks to lose elevation at an even and reasonable grade
- Possibly include a loop return to the parking lot near the city-owned pumping station on the west end of the seven-acre addition.

# ***Public Facilities***

## **Existing Public Facilities**

Presently there are no public services or amenities on the Fernan Lake Natural Area. To support the desired public uses of the site it will be necessary to create site improvements. A designated parking area and trailhead will be required. Amenities associated with this trailhead may include benches, a restroom shelter, drinking fountains, interpretive signs, regulatory signs, ADA accessible walkways, and litter containers. All amenities should be designed to blend in with the site and complement the natural setting.

## **Recommended Management Actions**

1. Possible Future Site Amenities and Improvements: If public use justifies or necessitates, additional facilities may be added to the site sometime after the initial development. These may include

- A portable toilet shelter adjacent to the parking lot with a security light to limit vandalism
- Educational and regulatory signage to provide information about the site placed in visible locations and designed to be vandal-resistant
- Picnic tables made of natural materials so they blend in with the surroundings located at the trailhead adjacent to the parking lot
- Benches along the trails made of natural materials to blend in with the surroundings, particularly at scenic over looks
- A multi-use trail to connect the parking lot with the Coeur d'Alene Parkway near the Beach House Marina utilizing the I-90 easement owned by the Idaho Transportation Department and the old alignment of Potlatch Hill Road
- A small dock in the western or first cove to allow boaters and kayakers to access the site
- A water meter to support a drinking fountain and irrigation for native trees at the trailhead
- Grills will not be allowed so as to not encourage open fires which will be prohibited and posted as such

# C. Veterans' Centennial Park

## ***Introduction***

1. *Site Description*
2. *Goals*

## ***Habitat Management***

1. *Natural Habitat Description*
2. *Recommended Management Actions*

## ***Wildlife Management***

1. *Wildlife in Veterans Centennial Park*
2. *Recommended Management Actions*

## ***Fire Prevention and Protection***

1. *Site-specific Fire Dangers*
2. *Recommended Management Actions*

## ***Access and Connectivity***

1. *Existing Site Access, Trails, and Service Roads*
2. *Recommended Management Actions*

## ***Public Facilities***

1. *Existing Public Facilities*
2. *Recommended Management Actions*

# Veterans Centennial Park

Possible Park Expansion



## Legend

-  Park Boundary
-  Proposed Road
-  Proposed Hiking Trail
-  Proposed Hiking/Biking Trail
-  Proposed Parking Lot
-  Proposed Buildings
-  Proposed Amenities

# ***Introduction***

## **Site Description**

Veterans' Centennial Park is a 16-acre parcel owned by the Coeur d'Alene Parks Foundation and managed by the City of Coeur d'Alene as a passive-use public park. The site was originally homesteaded in 1885 by Harry Seagraves. The Seagraves family lived and farmed on the site until 1997 when Emma VanLaken, Harry Seagraves daughter, donated the remaining sixteen acres of the family's homestead to the City of Coeur d'Alene. A condition of this generous donation specified that the property was to be named Veterans' Centennial Park in honor of Emma VanLaken's late husband and all other veterans while also celebrating the State of Idaho's Centennial. A second condition of the donation was that the park only be used for passive recreation, specifically, no ball fields or field lighting are to be installed on the property. Veterans' Centennial Park is located off of Fernan Hill Road next to the Fernan Hill Estates subdivision in an area of light-density residential development. The property is accessed through a dedicated easement from Fernan Hill Road and from the west end of Balcony Drive in Fernan Hill Estates. The northern property line of the site is approximately 300 feet south of French Gulch Road. The site is divided into two almost-equal parts. The southern half is an open field with scattered ponderosa pines and the northern half is a heavily-wooded, mixed coniferous forest.

## **Goals**

Any facility at this should ideally be accessible to everyone and developed with fully-accessible facilities. The open area of this site could be developed as a native tree arboretum, possibly with a street tree display. Many other possible improvements and amenities in this park may be necessary to support this arboretum. The woodland section of Veterans' Centennial Park should be maintained as a diverse, uneven-aged, open-canopy, mixed coniferous forest with public access through trails. This facility needs to be connected to the greater community and be accessible to the public.

# ***Habitat Management***

## **Natural Habitat Description**

The southern part of the property is mostly an open field. This section of Veterans' Centennial Park was homesteaded in 1885 and in an earlier time was cleared for pasture. Several invasive exotic weeds are prevalent in this field including spotted knapweed. Some young ponderosa pines, up to thirty feet tall are present around the margins of the field. Other notable plants in the open field area include a large apple tree and several wild rose bushes. This half of the property has remnants of old ditches and fence lines as well as extensive views towards the southwest and west. A small area near the west end of Balcony Drive has saturated soils and supports cattails. Because this is a disturbed site, there is an opportunity to develop a unique facility at this location.

The forested section of the park is located on a moderate north-facing slope on the north half of the property and is primarily covered with a dense stand of Douglas-fir, grand fir and ponderosa pine. This site appears to have been logged 20 to 30 years ago. An Avista Power Corporation utility easement runs through the forested area from southeast to northwest. Areas covered by firs are predominant in the interior of the forested section and have severe root rot problems indicating that these trees were not present at this location in their present densities. There are also trees showing signs of bark beetle damage on the site. Most of this forest has a closed canopy with only limited understory plants and accumulations of dead wood. On the margins of the forested area mature ponderosa pines and a greater variety of understory plants are found. There is one mature western larch tree on the property. There are a series of trails apparently constructed by cyclists that meander through this forest. The forested area has fractured surface rock throughout the site. A survey using five plots was completed in the forested section of the park in the summer/fall of 2011. Based on this survey, the habitat found on the property is classified as grand fir/ queenscup beadleily (ABGR/CLUN).

Low story plants found in the open southern half of the property include

- Clover
- Salsify
- Oxeye Daisy
- Jacobs-ladder
- Larkspur
- Spotted Knapweed

Low story plants found in the forested northern half of the property include

- *Mahonia repans*
- Twisted Stalk
- Western Baneberry
- Small Bedstraw
- Columbine
- Wild Strawberry
- Arnica
- Viola
- Fairy Bells
- Giant False Solomon's Seal
- Pinedrops
- Miner's Lettuce

- Mitrewort
- American Vetch
- Common Brone
- *Berberis*
- Oregon Grape
- *Calamagrossus rubscens*
- *Abies grandis*
- Mountain Sweet Cicely
- Bracken Fern
- Woods Buttercup
- *Trillium ovatum*
- Wild Ginger
- Snowberry

Mid-story plants found in the forested northern half of the property include

- Grand fir
- Douglas-fir
- Rocky Mountain Maple
- Honeysuckle
- Mountain Spray
- *Amelanchier ainifolia*
- Ocean Spray
- Paper Birch
- *Rosa rugosa*
- Elderberry
- Ninebark

## Recommended Management Actions

The following management activities to improve the natural habitat on Veterans' Centennial Park should be considered

1. Increase Species Diversity. Activities to improve tree species diversity include
  - Removing Douglas-firs and grand firs with root rot in selected areas
  - Creating openings in the forest canopy to allow penetration of sunlight by removing diseased and dead trees.
  - Planting trees such as rust-resistant western white pine, western larch, western hemlock, and western redcedar in appropriate sites
2. Eliminate Exotic and Invasive Weeds. In order to protect the natural habitat of the site, the spread of exotic and invasive weeds needs to be contained and a program to eliminate them from the site should be implemented. This program should
  - Identify invasive and exotic weeds present on the site by type and location
  - Identify the best methods of eradicating invasive and exotic weeds
  - Focus on eliminating the known infestation of spotted knapweed in the open field area of the park
  - Include an educational component to inform the public about the importance of preventing the spread of invasive and exotic weeds
3. Evaluate the Saturated Area. The moist area near the west end of Balcony Drive needs to be analyzed to ascertain if it is, in fact, a permanent feature, and, if so, plans need to be made to utilize this site. In order to make the best use of this resource, the parks department should
  - Investigate this area to determine if a natural spring exists at this location and, if so, determine the extent and duration of the saturated area

- If this spring is a permanent feature, incorporate it into the arboretum by using it as the centerpiece for a small wetland display
  - Determine if this water source could be used to benefit wildlife on the site
4. Planting Native Trees in the Open Field Area As part of the proposed development of a native tree arboretum in the park, the natural habitat on Veterans' Centennial Park should be improved by
- Creating a western white pine grove with a plan to add younger trees at five-year intervals
  - Including south-facing slope trees such as ponderosa pine, Douglas fir and lodgepole pine
  - Having an area for moist forest trees such as western hemlock, western redcedar and western larch
  - Setting aside an area for high-elevation trees such as subalpine fir, Engelmann spruce, whitebark pine and mountain hemlock
  - Including an area for native hardwood trees including paper birch, quaking aspen, black cottonwood and others

# ***Wildlife Management***

## **Wildlife in Veterans' Centennial Park**

Veterans' Centennial Park is located in a rural residential area with significant, although highly fragmented, natural wildlife habitat in the immediate vicinity. The site supports populations of small and large mammals, birds, reptiles, and amphibians. The wooded half of the park contains significant forage for wildlife and has adequate cover for small animals. The site is near the top of Fernan Hill and relatively removed from water sources. A small, wet area is located near the west end of Balcony Drive but rarely has surface water available for wildlife. In addition to white-tailed deer and evidence of black bear, the open southern half of the site is home to a large number of birds including

- Gray Catbird
- House Wren
- House Finch
- American Robin
- Chipping Sparrow
- Northern Rough-winged Swallow
- Violet Green Swallow
- Brown-headed Cowbird
- European Starling
- American Crow
- California Quail
- Western Bluebird
- Red Crossbill
- Black-capped Chickadee
- Tree Swallow
- Western Wood Pewee
- Calliope Hummingbird
- Black-headed Grosbeak
- Western Flycatcher
- Red-breasted Nuthatch
- Northern Flicker
- Song Sparrow
- Yellow Warbler
- Common Raven
- Sharp-shinned Hawk
- Warbling Vireo

Birds found on the forested northern half of the site include

- Evening Grosbeak
- Yellow Warbler
- Western Flycatcher
- Chipping Sparrow
- American Robin
- Gold-crowned Kinglet
- Brown-headed Cowbird
- Red-breasted Nuthatch
- Western Tanager
- Townsend's Warbler
- Swainson's Thrush
- Song Sparrow
- Dark-eyed Junco
- Chestnut-backed Chickadee
- Downy Woodpecker
- Red Crossbill
- Mountain Chickadee
- Northern Flicker
- Cassin's Finch
- Yellow-rumped Warbler
- Pine Siskin
- Pygmy Nuthatch
- Cooper's Hawk
- Calliope Hummingbird
- California Quail
- Osprey (fly over only)
- Northern Rough-winged Swallow
- Tree Swallow
- Violet Green Swallow

## Recommended Management Actions

In order to promote and protect wildlife in Veterans' Centennial Park, following tasks should be considered

1. Provide a Permanent Water Source for Wildlife. As part of the development of any facility on the site, a water feature should be added in the open half of the property to promote wildlife and to possibly provide a visual focal point. The site currently lacks a permanent water source for wildlife. A water feature in the park should
  - Be easy to maintain and service, and as secure from vandalism as possible
  - Be accessible for small animals and birds to use as a water source
  - Possibly serve as an attractive visual reference point for the park
  - Be separated from the small wet area near the west end Balcony Drive and provide an additional source of water
2. Create and Maintain Habitat for Small Mammals and Birds. Small mammals and birds need safe places to live within a forested environment. It is possible to improve existing cover and create additional places for these animals to live by
  - Installing nest boxes on trees for cavity-nesting birds and perhaps bat houses
  - Creating and leaving brush piles subject to the limitations imposed by fire safety considerations
  - Planting native shrubs and forbs as part of any site development and landscaping in the open field area

# ***Fire Protection and Prevention***

## **Site-specific Fire Dangers**

Veterans' Centennial Park is located in the Fernan Hill Wildland-Urban Interface and is adjacent to residential development. The site is classified as a moderate fire risk by the Coeur d'Alene Fire Department due to several factors. Currently the site is not hooked into the municipal water system. The nearest source of municipal water is from fire hydrants located near the eastern property line in the Victoria Place subdivision. The wooded north half of the site is located on a north-facing moderate slope of up to 12%. The forest has significant problems with Douglas-fir and grand fir root rot and therefore fuel loads are heavier than desired. The north side of the park also lacks access and defensible space, especially on the eastern and northern boundaries. The southern half of the property is accessible from both a dedicated easement off of Fernan Hill Road and through the Victoria Place subdivision at the end of Balcony Drive. This half of the park consists primarily of an open field with limited vegetation and an understory devoid of brush, deadwood, and flashy fuels and is almost entirely defensible space.

## **Recommended Management Actions**

To mitigate the danger presented by uncontrolled wildfire on Veterans' Centennial Park, the following management activities should be considered.

1. Create Access to the North Half of the Property Presently the north forested half of Veterans' Centennial Park has no direct access from the north. In order to effectively contain and extinguish wildfires, it is desirable that the wooded section of the park can be accessed by fire fighters and firefighting equipment from French Gulch Road located approximately 300 feet north of the property's northern boundary. Creating access for fire suppression can be accomplished by
  - Working with adjacent land owners to secure an easement into Veterans' Centennial Park from French Gulch Road
  - Constructing a service road on this easement to the north property line of the park
  - Creating adequate defensible space on the north property line to allow for the safe operation of firefighting equipment by the selective management of the vegetation
2. Improve Access to Water Presently the nearest source of municipal water is from the fire hydrants located along Victorian Drive east of the park including one located at the intersection of Balcony Drive. The proposed development of the park will require the expansion of the city's water supply on to the site. In conjunction with this expansion of the water system, provisions need to be made to allow for use by firefighting equipment. A water connection for emergency use should

- Be compatible with hook-ups used by the Coeur d'Alene Fire Department (the water line for this site will not be big large enough to support a hydrant)
- Be clearly marked and located in an area that is easily reached
- Ideally be located near the north end of the open field area, but far enough away to allow adequate defensible space between it and the forested section of the park

3. Managing Fuels on the Site The danger of uncontrolled wildfire should be mitigated by managing the fuel loads and structure of the fuels in the natural area of Veterans' Centennial Park. A plan to manage fuels at Veterans' Centennial Park needs to be developed and should include provisions for

- Creating and maintaining an uneven-aged, diverse, open canopy, mixed coniferous forest
- Monitoring fuel accumulations and removing excess materials or changing the structure of the fuels to inhibit wildfire
- Focusing on protecting adjacent residential structures by reducing fuel loads near private property and by creating defensible space at these locations
- Selectively removing vegetation such as flashy brush, large accumulations of dead wood and ladder fuels

# ***Access and Connectivity***

## **Existing Site Access, Trails, and Service Roads**

Current access to Veterans' Centennial Park is through an easement off of Fernan Hill Road. The existing, unimproved entrance road meanders off of the legal easement and also serves as the driveway for one of the abutting residences. At this time there is no dedicated parking area and the access road is not signed, making visitation to the site sporadic. A second access to the park is located at the end of Balcony Drive in the Victoria Place subdivision and is also not identified. Fernan Hill Road next to the park is planned to be a signed bike route in the Coeur d'Alene Trails and Bikeways Master Plan. Development of the site will necessitate the creation of a viable access with parking facilities. Due to the moderate topography of the site and the nature of the proposed facilities, all trails and walkways in Veterans' Centennial Park should be built to standards that would make them highly accessible.

## **Recommended Management Actions**

Opportunities to provide greater public access to Veterans' Centennial Park and to connect this facility to the community should be explored and considered. These actions may include

1. Build an Entrance Road to the Park. An entrance road should be built utilizing the existing legal easement to the park from Fernan Hill Road. This entrance road should
  - Be aligned to use the existing legal easement
  - Be paved with shoulders wide enough to support bike lanes
  - Have signage clearly identifying the site as a public park off of Fernan Hill Road
  - Terminate in a public parking lot near the south side of the property
  
2. Construct a Public Parking Lot. In order to support public use and to provide access to the proposed facilities on the site, a public parking lot should be built. This lot should
  - Have adequate parking for the park (12 to 24 spaces) and enough room for school buses to turn around with at least two parking spaces for buses
  - Include two to four disabled parking stalls directly adjacent to any accessible walkways into the park
  - Be located near the south property line of the site so as not to intrude on the proposed facilities
  - Have physical barriers such as curbing, fencing, or boulders to prevent the public from driving into the park
  - Include a service gate for maintenance staff to access the property and facilities

3. Build a Pathway System in the Park. To connect the parking lot to the proposed facilities and to provide disabled access to these facilities, a system of paths should be constructed in the open southern half of the park. This system of paths should include

- A direct connection to the parking lot, specifically the disabled parking stalls
- Adequate and uniform width (six feet) to support wheel chair use
- A loop design around the proposed facilities that will allow for better circulation and greater walking options
- A surface that will support the use of wheelchairs
- Connections to all planned buildings and structures on the site
- A connection to the wooded northern half of the property and the planned trail system in that location

4. Construct a Trail System. A hiking trail should be developed in the wooded north half of Veterans' Centennial Park to enable the public to access and appreciate the natural habitat found at that location. Because of the small size of the wooded area (less than eight acres) a hiking trail will be relatively short, which would be suited to persons unable to negotiate longer and more challenging trails. This hiking trail will

- Be built to be accessible as described in the trail standards of the management plan to allow for greater use of this site
- Have a natural or dirt surface
- Incorporate a loop to allow for one-way hiking
- Avoid steep grades and other obstacles that would limit the use of this trail by disabled persons and children
- Include at least one resting bench
- Be directly connected to the pathway system in the park

5. Connect Fernan Hill Road and French Gulch Road with a Bike Trail. To provide public access for the residents of the French Gulch area and to connect the planned, signed bike route on Fernan Hill Road with lightly traveled roads north of the park, the possibility of creating a bike trail through the park should be explored. A bike trail could potentially be

- Located along the perimeter of the park between the proposed parking lot and the northern boundary of the site
- Paved to provide a suitable surface for bicyclists as well as pedestrians
- Located on an easement from French Gulch Road to the park if one is secured.
- Aligned to utilize the proposed bike lanes on the entrance road
- Separated from the pathway system intended only for pedestrian use

6. Pedestrian and Service Access from Victoria Place. Utilizing the existing easement at the end of Balcony Drive, an entrance for pedestrians and for maintenance of the property should be created. This access should

- Incorporate signage identifying it as an entrance to Veterans' Centennial Park
- Have barriers to prevent access by public motor vehicles
- Include a lockable gate to provide access for official vehicles for maintenance and security

# ***Public Facilities***

## **Existing Public Facilities**

Presently public facilities and amenities at Veterans' Centennial Park are limited to a boulder identifying the site as a public park which includes information identifying the donors of the property. The location, layout, and deed restrictions of this property create the opportunity to provide a unique public facility. The relatively level and open southern half of the property provides a suitable site for the placement of public facilities. The facilities and amenities proposed for this site should take advantage of the scenic location and incorporate educational opportunities.

## **Recommended Management Actions**

Proposed uses of this site, in addition to walking and hiking, may include environmental education, nature appreciation, picnicking, and small events. In order to support these uses and to create a unique facility appropriate for this park the following facilities should be considered

1. Arboretum. A native-tree arboretum should be developed in the open, southern half of Veterans' Centennial Park. This arboretum should be professionally designed to be an attractive addition to the community and should include

- A western white pine grove, ultimately with trees of a wide age range
- An area highlighting southern-slope type vegetation including ponderosa pine, lodgepole pine and Douglas-fir
- A grove of quaking aspen
- An area dedicated to moist forest including Pacific yew, western redcedar, western larch, and western hemlock
- A native hardwood section to include black cottonwood and paper birch
- A high elevation section to include Engelmann spruce, mountain hemlock, subalpine fir, and whitebark pine
- Access to public water to establish and maintain the landscape
- A walkway around and through the arboretum
- Provisions to maintain the expansive views out of the park by strategic placement of the trees
- Means of protecting young trees from wildlife, specifically deer and other large mammals
- Only native trees and plants
- Educational signage identifying the trees
- A water source to support small animals and birds and to possibly act as an attractive focal point for the arboretum

2. Street Trees Display Create a display of approved street trees either next to the proposed parking lot or along the planned entrance road. A street tree display will include

- Trees recommended by the Urban Forestry Committee
- Access to the water supply as the trees will need to be watered for a number of years
- A means of protecting the trees from wildlife by using physical barriers and/or chemical treatments
- Signage identifying the tree species

3. Veterans Plaza A feature recognizing veterans should be incorporated into Veterans' Centennial Park. This feature should be

- Designed as a simple, open plaza with bench seating and a memorial plaque
- Built with the flexibility to add a more elaborate memorial or artwork in the future
- Connected to the hard-surfaced, loop walkway
- Located in or next to the arboretum
- Designed to serve as an attractive focal point for the park

4. Gazebo A gazebo should be constructed in the park. This gazebo should be usable for environmental educational programs and for small events such as weddings and birthday parties. The income from renting this facility will be used in the Parks Capital Improvement Fund. A gazebo should

- Be located in the northwest corner of the open area of the park in an area of scattered ponderosa pines next to the heavily wooded section of the property
- Incorporate an open deck to take advantage of the expansive views out of the property
- Be directly connected to the paved or hard-surfaced pathway system in the park
- Be near an entrance to the hiking trails that lead into the wooded section of the park
- Be constructed of fire-resistant materials, especially the roofing material
- Use natural materials such as large diameter logs or timbers, and/or possibly stone work to give a rustic appearance
- Have a nearby connection to the potable water supply such as a quick coupler

5. Restroom Shelter: A structure to place and maintain portable toilet facilities should be installed in Veterans' Centennial Park. This shelter should

- Be constructed of natural materials such as large diameter logs or timbers and match the style of the proposed gazebo
- Be large enough to accommodate two portable units one of which would be accessible
- Have a drinking fountain located nearby and a station to wash hands
- Be located near the parking lot and adjacent to the accessible walkway system

6. Other Amenities In addition to these facilities, the city should install the following amenities

- In-ground trash receptacles at the parking lot and gazebo
- A drinking fountain near the parking lot and restroom shelter
- Educational signage in the arboretum
- Benches along the accessible walkway
- Possibly a small picnic area with tables and grills in the future

## **D. Cherry Hill Park Natural Area**

### ***Introduction***

1. *Site Description*
2. *Goals*

### ***Habitat Management***

1. *Natural Habitat Description*
2. *Recommended Management Actions*

### ***Wildlife Management***

1. *Wildlife at Cherry Hill*
2. *Recommended Management Actions*

### ***Fire Prevention and Protection***

1. *Site-specific Fire Dangers*
2. *Recommended Management Actions*

### ***Access and Connectivity***

1. *Existing Site Access, Trails, and Service Roads*
2. *Recommended Management Actions*

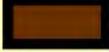
### ***Public Facilities***

1. *Existing Public Facilities*
2. *Recommended Management Actions*

# Cherry Hill Park



### Legend

-  Park Boundary
-  Boundary Line
-  Proposed Parking Lot
-  Proposed Buildings

# ***Introduction***

## **Site Description**

Cherry Hill Park is a 33-acre, multi-use park, located on the corner of 15th Street and Hazel Street. The park is situated on the west-facing slope of Cherry Hill and extends north to the base of Best Hill. The western half of the park is relatively level and is developed as an active-use park with tennis courts, parking lots, a BMX track, playground, and memorial plaza. The eastern half of the site (approximately 15 acres) consists of a combination of woodland containing a disc golf course and an open field used primarily as a sledding hill in the winter. The 15 acres of woodlands and open fields are classified as a natural, open space. The natural open area of Cherry Hill Park is located on a west-facing slope, generally between 10 and 20 degrees. It includes three small ravines running east to west across the property. The natural area is bounded by Hazel Street to the south; a parking lot, Fallen Hero's Plaza, and a BMX track to the west; private wooded property to the north; and a gravel service road to the east. Located next to the gravel service road at the west end of the park in the natural area is a Coeur d'Alene Water Department facility consisting of a large water storage tank surrounded by chain link fence. This facility covers approximately a third of an acre and other than the tank, is covered with natural vegetation. An Avista power easement bisects the property from the southeast corner to the northwest. This easement is relatively small and unobtrusive.

## **Goals**

The Coeur d'Alene Parks Department will work to expand recreational opportunities on this natural area while maintaining the current uses of the site. The natural area of Cherry Hill Park will be fully integrated into the overall design of the park. The woodlands and open fields at Cherry Hill Park need to be maintained to the standards outlined in the Natural Open Space Management Plan, specifically by creating and maintaining a diverse, uneven-aged, open-canopy, mixed coniferous forest and by keeping the site free of exotic and invasive weeds along with destructive diseases and pests. Steps will be taken to protect and promote wildlife on the site.

# ***Habitat Management***

## **Existing Natural Habitat**

The natural area of Cherry Hill Park includes approximately 15 acres of mixed coniferous forest with a three-acre open field used as a sledding hill. Most of the natural area is situated on a west-facing slope of about 10 to 20 degrees. Most of the coniferous forest on the site is composed primarily of ponderosa pine habitat with small stands and scattered individual grand and Douglas-fir trees. The largest of the three ravines, starting near the northwest corner of the water department facility and ending near the starting line of the BMX track, is dominated by a stand of Douglas-fir. Two areas located along Hazel Street at the site's northern boundary and east of the BMX concession stand contain large stands of various hardwood trees including oaks, maples, walnut, and sweet gum trees. The understory is very sparse and consists of mostly native grasses, shrubs, and forbs. There are several large ocean spray bushes and scattered Oregon grapes along with wild rose bushes in the understory. The wooded area of the site was recently thinned (spring of 2011) and efforts were made to improve tree diversity by selective removal. Before this thinning was accomplished, the forest had developed a closed canopy, limiting sunlight to the understory. The open field is a combination of native grasses with invasive weeds including spotted knapweed. This area receives very little foot traffic when it is not being used as a sledding hill. A second large (one-acre) clearing is located near the gravel service road north of the water tank. This smaller clearing contains large amounts of spotted knapweed.

## **Recommended Management Actions**

1. Natural Meadow Areas The open field currently used as a sledding hill should be improved by eliminating exotic weeds and replacing them with a variety of native grasses and flowers. Steps should be taken to maintain the small, open area north of the water tank as a natural meadow for the benefit of wildlife. This should be done in a way that maintains the existing use of the site as a sledding hill while making the area more natural, attractive and valuable as wildlife habitat by

- Using mechanical, chemical, and cultural methods of removing and eliminating exotic and invasive plants.
- Seeding the area with native grasses and wild flowers.
- Timing the mowing of the site to encourage native plants to grow while preventing noxious weeds from seeding.

2. Increase Tree Species Diversity in the Woodland: The Parks Department should work on introducing native trees to the woodland area of Cherry Hill Park, particularly at the margins of the forest containing the disc golf course. Increasing the tree diversity on the site should include

- Planting western white pine seedlings that are blister-rust resistant and practicing accepted sanitation methods such as pruning
- Introducing western redcedars into the large ravine east of the BMX starting gate
- Planting western larch trees where openings in the forest exist

3. Protect the Natural Habitat by Expanding Cherry Hill Park: To preserve the viewshed of Best Hill and to expand the natural area of Cherry Hill Park for the benefit of the environment, wildlife, and recreational opportunities, the city should consider expanding the park. Currently the south and west-facing slopes of Best Hill are undeveloped, covered with native vegetation, and highly accessible. This land consists of several large privately-owned parcels, some of which are directly adjacent to Cherry Hill Park. The park should be expanded by

- Exploring the possibility of acquiring private land north of the park next to and above the BMX track
- Pursuing the acquisition of conservation easements on private land north of the park and above it on Best Hill

# ***Wildlife Management***

## **Wildlife in the Cherry Hill Natural Area**

Cherry Hill Park is located where a large area of natural habitat comes into contact with a highly-developed urban area containing dense residential development and busy roadways. In addition to small mammals, birds, and reptiles, the area is home to a large population of white-tail deer. In recent years there have been several automobile accidents caused by deer wandering into nearby and adjacent public roadways. Due to the limited understory and a lack of large organic debris and snags, there is a lack of suitable habitat for many species of small mammals and birds. To meet the management goals of the Cherry Hill Park relating to wildlife management, the following management actions need to be taken

### **Recommended Management Actions**

1. Creating Suitable Habitat for Small Mammals and Birds Actions to improve wildlife habitat in the park by modifying the natural habitat should include

- Allowing and encouraging the growth of an understory in the wooded areas of Cherry Hill Park
- Creating snags by leaving existing large-diameter trees as they die as long as they do not present safety hazards
- Leaving large, organic debris within fire safety limitations at suitable locations
- Installing nesting boxes designed for desired bird and mammals such as bats and songbirds
- Building small brush piles at locations that will not interfere with the public enjoyment of the site

2. Reducing Conflicts between Large Animals and the Public To protect the wildlife and the public at the Wildland-Urban Interface, the following steps should be considered

- Prevent automobile collisions with deer by improving visibility adjacent to the roadways and installing signage
- Install educational signage warning the public about the dangers posed by unplanned encounters with wildlife

# ***Fire Protection and Prevention***

## **Site-specific Fire Issues**

Cherry Hill Park is classified as a moderate fire hazard by the Coeur d'Alene Fire Department. The park is located in the Stanley-Cherry Hill Wildland-Urban Interface. Resources at or near Cherry Hill Park related to fire prevention and protection include Fire Station #3 located adjacent to the park, access to the municipal water system which is good access especially on the west end of the park, and fire hydrants located at the west end of the park. The entire forested area of the park was recently (spring of 2011) selectively thinned as part of a FireSmart grant. Identified challenges to efforts to prevent, contain and suppress wildfires at Cherry Hill Park include

- Lack of access to the municipal water supply at the east end of the park
- Absence of an access trail along the northeast boundary of the park where it abuts and is immediately down-slope of privately-owned forest land.
- Extensive areas of adjacent, privately-owned forest land located to the north and east of the park

## **Recommended Management Actions**

To mitigate the danger from uncontrolled wildfires on the Natural Area of Cherry Hill Park the following management actions should be completed

1. Maintain a Defensible Space at the East End of the Park Making provisions for fire fighters and firefighting equipment to access the natural areas of Cherry Hill Park is important. The developed sections of Cherry Hill Park have extensive parking lots and cleared areas suitable for use by emergency personnel. The east end of the park is less accessible. Access at the east end of the park should be provided by

- Maintaining the existing open area north of the water department facility as an open meadow without trees and containing native grasses and forbs
- Maintaining the existing gravel road along the eastern boundary of the park and the associated turnout so that heavy equipment can safely operate on it.

2. Managing Fuels on the Site The danger of uncontrolled wildfire should be mitigated by managing the fuel loads and structure of the fuels in the natural area of Cherry Hill Park. This can be accomplished by:

- Creating and maintaining an uneven-aged, diverse, open-canopy, mixed coniferous forest
- Monitoring fuel accumulations and removing excess materials or changing the structure of the fuels to inhibit wildfire
- Encouraging the Coeur d'Alene Water Department to selectively thin and prune the vegetation inside of their water storage facility to protect this important asset

3. Provide Access to the Municipal Water Supply A large city-owned water storage tank tied directly into the city's main water lines is located at the east end of the park. Currently there are no fire hydrants or standpipes in this area. To provide water in the case of a wildfire, the city should install a hydrant near the water storage facility by working with the Coeur d'Alene Water Department and the Coeur d'Alene Fire Department.

4. Create Access at the Northeast Section of Cherry Hill Park At the northeast corner of Cherry Hill Park the natural area comes into contact with a large area of privately-owned forest land. At this boundary the slope increases substantially with the park being located at the base of Best Hill. There is a danger that a wildfire in Cherry Hill Park could rapidly spread up Best Hill and endanger the people and property on that hill. To enable fire fighters to access this area and contain and suppress wildfires, a trail should be built at this location that includes

- A trail accessible by ATVs for occasional emergency use from the far northeast corner of the property to the area of the BMX track
- 30 feet of defensible space on either side of the trail through selective vegetation management
- The possibility of being located on private property if an easement could be secured
- The possibility that the trail could serve as a gateway to a comprehensive trail network on Best Hill in the event that additional adjacent property were to be acquired by the city

# ***Access and Connectivity***

## **Existing Site Access, Trails, and Service Roads**

Existing public access to the natural area at Cherry Hill Park is provided through the facilities present in the developed portion of the park. Extensive parking and restroom facilities are available and located near the natural area. Currently the natural area is primarily used as a sledding hill and as an 18-hole, disc golf course. There are no designated trails in the natural area. However, the forested section of the property is very open and hikers often use the disc golf course to access the interior of the site. There is the potential to create hiking and mountain bike opportunities out of the existing park if adjacent property were to be acquired. The eastern boundary of the park is adjacent to large, privately-owned, undeveloped areas. These undeveloped areas contain healthy mixed coniferous forest on the south face of Best Hill and are used by deer and other animals as a wildlife corridor. A Class I Bikeway has been proposed as part of the Trails and Bikeways Master Plan paralleling 15th Street and utilizing the I-90 ITD easement connecting Canfield Mountain with Fernan Village. This trail would be routed either through or next to Cherry Hill Park.

To maintain public access to the natural area at Cherry Hill Park and to connect this site to other public facilities and the greater community the following specific management actions should be completed:

## **Recommended Management Actions**

1. Designated Parking at the East End of the Park. Four to six parking spaces should be maintained and marked off of the turnout from the gravel road east of the water department facility. This site should have

- A stable pervious surface to allow water to percolate
- Barriers such as posts or strategically places boulders to prevent driving into the natural area
- Signage indicating that parking is allowed
- Adequate room to allow emergency vehicles to safely operate off of the public road

2. Connection to Planned Bikeway. A trail or sidewalk should be constructed between the natural area at Cherry Hill Park and the planned bikeway. This connection should

- Be designed to be ADA compliant so that anyone using the class I trail can gain access to the natural areas of the park along with the developed sections and facilities
- Have signage directing people to the natural area from the Class I Bikeway
- Avoid crossing park roadways and parking lots as much as possible
- Be directly connected to the disabled parking spaces already present in the park

2. Plan for Future Trails. In the event additional natural, open space is acquired or secured by conservation easements, it will be important that provisions for public access are made. This access should include

- Trails built to the standards laid out in the Natural Open Space Management Plan
- Connections to the park at the proposed small parking area at the east end of the park and possibly near the property currently owed by the Coeur d'Alene Fraternal Order of Eagles
- Scenic viewpoints overlooking the park and city
- A route that will protect the privacy of the two, single-family homes north of the park
- A connection with the proposed Class I Bikeway along 15th Street
- Provisions that allow mountain bikes if the terrain and soils will support this use (this property is near the BMX track in the park and would complement this facility)
- A loop to discourage the public from creating unauthorized trails

# ***Public Services and Amenities***

## **Existing Public Facilities**

Presently there are extensive public services and facilities at Cherry Hill Park, most of which are located on the west half of the park. The park lacks picnic facilities which, given the size of the park and the range of other activities, is unfortunate. There have been requests from both BMX users and sledders for some sort of facility to accommodate birthday parties and family picnics.

## **Recommended Management Actions**

1. Create a Designated Picnic Area in the Park Currently there is no designated picnic area at Cherry Hill Park. The area south of the BMX concession, which contains mostly hardwood trees planted by earlier owners of the property associated with homesteads, would be suitable as a picnic area. Utilities and parking are located nearby. The site provides a lot of shade and excellent views of the developed portions of Cherry Hill Park. A picnic area will

- Have four to eight picnic tables that blend in with the natural surroundings, at least two of which should be ADA compliant
- Grills at the tables
- An accessible walkway from the parking lot to the ADA compliant tables
- Trash receptacles

2. Build a Gazebo Cherry Hill Park supports a wide variety of activities. In addition to a picnic area, there have been numerous requests for a rental facility to host events located near the BMX track and the sled hill. The western edge of the natural area would provide an ideal location for a gazebo. A park gazebo should

- Be able to accommodate at least four full-size picnic tables
- Be located at the edge of the natural area between the BMX track and the sledding hill and near the existing concession stand.
- Be constructed of materials that give a rustic appearance and blend in with the natural surroundings
- Include a large, permanent grill

## **E. Canfield Trails**

### ***Introduction***

1. *Site Description*
2. *Goals*

### ***Habitat Management***

1. *Natural Habitat Description*
2. *Recommended Management Actions*

### ***Wildlife Management***

1. *Wildlife on Canfield Trails*
2. *Recommended Management Actions*

### ***Fire Prevention and Protection***

1. *Site-specific Fire Dangers*
2. *Recommended Management Actions*

### ***Access and Connectivity***

1. *Existing Site Access, Trails, and Service Roads*
2. *Recommended Management Actions*

### ***Public Facilities***

1. *Existing Public Facilities*
2. *Recommended Management Actions*

# Canfield Mountain Trails



Proposed Connection  
to Forest Service Trails

Existing  
Trail Head

## Legend

-  Park Boundary
-  Hiking/Biking Trails
-  Proposed Hiking/Biking Trails

# ***Introduction***

## **Site Description**

Canfield Trails is a 24-acre site located at the base of Canfield Mountain on Mountain Vista Drive in the Copper Ridge subdivision. The property was acquired by the City in 2005 as part of the annexation agreement with the developer of Copper Ridge. The site is very steep with elevations on Canfield Trails varying from 2100 feet to 2600 feet above sea level. The property includes south and west-facing slopes and is covered with natural vegetation. Access to the site is from on-street parking on Mountain Vista Drive with a direct connection to the trail system that has been developed on the property. Canfield Trails is bordered by privately-owned forest land to the east and north. US Forest Service land extending to the top of Canfield Mountain is located beyond these privately-owned parcels. Several private residences are located down-slope from Canfield Trails on the south and west boundaries of the property.

## **Goals**

Managing the existing natural habitat, while keeping the site open for diverse public use, will require careful planning and implementation. Connecting Canfield Trails to nearby publically-owned land should be one of the priorities for managing this site. Providing greater access to the site and, thereby, providing more passive recreational opportunities is an important objective.

# ***Habitat Management***

## **Natural Habitat Description**

The natural habitat of Canfield Trails consists of mixed coniferous forest. The habitat on the south-facing slope is primarily an open-canopy, uneven-aged, ponderosa pine, mixed coniferous forest. This forest is relatively healthy and has an excellent mix of ground cover varying from native grasses to native shrubs and forbs. The west-facing slope is dominated by grand and Douglas-fir and has a relatively closed canopy. Numerous rock outcroppings are found throughout the site. A gully on the south face of the property has seasonal water flow.

## **Recommended Management Actions**

1. Habitat Map A map should be made delineating the extent of the primary natural habitats found on all 24 acres of Canfield Trails based on a comprehensive field survey. This habitat map should

- Include boundaries showing the dominant habitat in each area of the site such as ponderosa pine and Douglas-fir/grand fir dominated mixed coniferous forest
- Indicate various stand densities within the different habitats and define areas of closed and open canopies
- Show the location of noteworthy plants including the trees
- Display areas with invasive and exotic weeds and identify those weeds

2. Protect the Natural Habitat by Connecting the Property to the National Forest To protect the habitat on Canfield Trails it is important to maintain a natural connection to the thousands of acres of national forest above and to the east. Present management of the intervening properties is largely compatible with the city's management goals for Canfield Trails. In order to maintain this connection the city should

- Explore the possibility of acquiring private land east of Canfield Trails and between this natural area and the national forest
- Pursue the acquisition of conservation easements on private land above and east of the property
- Work with the U.S. Forest Service to co-ordinate management of nearby publically-owned timberland

3. Close and Revegetate Old Roads and Trails Numerous ATV trails and old logging roads are located on Canfield Trails. Most of these trails are not suitable for use as hiking trails or service roads and should be restored to a natural condition. Abandoned and obsolete roadways and trails should be restored by

- Mitigating runoff concerns through installation of barriers to prevent the expansion of washouts and gullies
- Replanting old roadways and trails with natural vegetation with an emphasis on shade-intolerant trees such as ponderosa pine, western white pine and western larch.
- Seeding open areas on old roadways and trails with native grasses and forbs

# ***Wildlife Management***

## **Wildlife in the Canfield Trails Natural Area**

Canfield Trails is located at the base of Canfield Mountain where thousands of acres of forest land meet the urbanized areas of Coeur d'Alene. The area is home to most large animals found in the region including deer, elk, moose, black bears, mountain lions and, occasionally, wolves. Additionally, numerous species of birds, small mammals, reptiles and amphibians are found on the property.

## **Recommended Management Actions**

1. Maintain a Connection to the National Forest In order for large animals to continue to inhabit this property, it is imperative that a natural connection be maintained between Canfield Trails and the nearby national forest land to the east. Presently two parcels of privately-owned timber land separate the park from the forest. Although the present land use of these parcels is compatible with the management goals of the site, steps should be taken to ensure that this wildlife corridor is preserved including

- Bringing one or both of these parcels into public ownership either by the city or through the federal government
- Working with the land owners to maintain the parcels' current use as timber land
- Coordinating management actions with the goal of maintaining adequate cover for wildlife to move across the site

2. Reducing Conflicts between Large Animals and the Public. To protect the wildlife and the public at the Wildland Urban Interface, the parks department should

- Install educational signage warning the public about the dangers posed by unplanned encounters with wildlife
- Regularly monitor the site and report any evidence of potentially dangerous wildlife

# ***Fire Protection and Prevention***

## **Site-specific Fire Issues**

Canfield Trails is classified as a fire hazard by the Coeur d'Alene Fire Department. The park is located in the Canfield Mountain Wildland-Urban Interface. Resources at or near Canfield Trails related to fire prevention and protection include access to the municipal water system through fire hydrants located on Mountain Vista Drive and access on the west end of the park.. Fuel accumulations on the site are light to moderate, and the forest has a mostly open-canopy. Identified deficiencies include

- Lack of access to municipal water other than at the entrance to the site at Mountain Vista Drive
- No access to the top or east end of the property
- Very steep west and south-facing slopes
- Several residences located adjacent to the property and at the bottom of the slopes
- Extensive areas of adjacent, privately-owned forest land located to the north and east of the park

## **Recommended Management Actions**

To prevent wildfire and to successfully contain and extinguish wildfires on Canfield Trails when they do occur, the following management actions need to be completed.

### **1. Create and Maintain a Defensible Space Behind Adjacent Residential Properties**

In order to protect adjacent residential properties and residents, it is necessary to create and maintain defensible space between these buildings and the forest land contained within Canfield Trails. To accomplish this, the parks department needs to

- Use selective vegetation management to reduce ladder fuels, flashy fuels, and excessive fuel accumulations in a strip thirty feet wide immediately behind developed private property
- Encourage the adjacent property owners to maintain their property as defensible space

**2. Managing Fuels on the Site** The danger of uncontrolled wildfire should be mitigated by managing the fuel loads and structure of the fuels in the natural area of Cherry Hill Park. This can be accomplished by

- Creating and maintaining an uneven-aged, diverse, open-canopy, mixed coniferous forest
- Monitoring fuel accumulations and removing excess materials or changing the structure of the fuels to inhibit wildfire

**3. Partner with Other Agencies and Organizations to Mitigate Deficiencies** Canfield Trails is directly connected to large areas of forest land both privately-owned and owned by

other agencies. To effectively prevent, contain and extinguish wildfires on the site, it is necessary that we work with the agencies and/or organizations that are currently managing these properties. As part of the fire prevention and protection plan for Canfield Trails, the city needs to

- Work with the Coeur d'Alene Fire Department to find suitable locations to access the site and to potentially use these access points as staging areas
- Coordinate management activities with the U. S. Forest Service to ensure that fuel loads on the nearby forest land are within reasonable limits

4. Improve Access to the Site for Emergency Services. At this time, access to the property is limited to the west end adjacent to Mountain Vista Drive. At this location, only on-street parking is available. Access above and to the east is dependent on utilizing old logging roads in the national forest and on private timber land. As a result, it is important that the city

- Coordinate management activities with the U. S. Forest Service to ensure that access is available east and above Canfield Trails through national forest land
- Identify potential locations for a trailhead that can be used to access the site by fire-fighting personnel and fire-fighting apparatus

# ***Site Access and Connectivity***

## **Existing Site Access, Trails, and Roads**

Existing public access to the natural area at Canfield Trails is provided through on-street parking located at the entrance to the trail system on Mountain Vista Drive in the Copper Ridge subdivision. The entrance to the trail system is clearly marked and signed. A one-and-a-half mile, single-track trail system including both an upper and a lower loop, accesses the property. At the high point of the property, old logging roads continue through privately-owned forest land and into the national forest. These privately-owned parcels are posted to prevent trespassing and, therefore, hiking to the national forest is not possible. A long-term goal of the Bikeways and Trails Master Plan is to connect Canfield Trails to other natural, open spaces including Cherry Hill Park. To improve public access to Canfield Trails and to connect this site to other public facilities and the greater community, the following specific management actions should be completed:

## **Recommended Management Actions**

1. Create a Trailhead. To provide greater access to Canfield Trails, it is desirable to acquire and develop a trailhead for the site with off-street parking and amenities to support public use. Possible locations for a trailhead include the small subdivision north of Copper Ridge, a Dalton Gardens trailhead in a joint-city effort, and/or the end of Shaddock Lane south of Canfield Trails. Any trailhead should be developed with

- A stable pervious surface to allow water to percolate
- Barriers such as posts or strategically places boulders to prevent driving into the natural area
- Signage indicating that parking is allowed
- Adequate room to allow emergency vehicles to safely operate off of the public road
- Room for at least 12 vehicles to park
- One or two handicapped parking spaces
- A direct, designated and well-marked connection to the trail system on the property
- Space for a portable restroom shelter
- Natural landscaping if the trailhead is located on a disturbed site
- The potential to connect to a proposed bikeway from the south

2. Connection to the National Forest. The existing trail system should be expanded to connect with existing trails in the national forest on Canfield Mountain and eventually to the Best Hill area. Connecting Canfield Trails to other publically-owned lands will greatly expand the recreational opportunities available to the public and serve to tie the existing and possible future natural areas on the eastern edge of the city together to maximize the benefits to the community. An expanded trail system should be

- Built to the national forest using either dedicated easements or through the acquisition of the intervening properties
- Constructed using the standards described in the trail-construction section of the management plan.
- As accessible as the terrain and site conditions allow
- Directly connected to any future trailhead and the existing trail system on the property
- Planned with the potential to connect to Best Hill utilizing a ridge-top trail

2. Minor Improvement to the Existing Trails. The existing one-and-a-half mile, double-loop trail on the site was constructed between 2007 and 2009 using volunteer labor, and was built to the standards contained within this management plan. As public use of this trail system has increased minor deficiencies have become evident and need to be addressed. These deficiencies have been identified and can be rectified by

- Working with volunteers to fix trail tread, improve switchbacks, widen trail sections, and re-route short sections of the trail where grades exceed recommendations and/or in areas where minimum-width requirements are not being met.
- Constructing fences in areas where the new trail intersects illegal trails to re-vegetate those areas.
- Adapting the present trails to provide an up-bike route at the intermediate level using the eastern two loops. Work the opposite set of trails (left - west) to provide safe downhill biking at the intermediate level. Ensure that the up-bike route can also be ridden down safely at the intermediate level.
- Exploring the possibility of a Downhill/Free-ride trail on the north end of the park. This would use the very steep terrain, not traversed by the present trail system that exists in the park. There is adequate space for a superior alternative trail for downhill-only traffic. This trail would use constructed features to allow technical biking on the steep slope. Construction would satisfy IMBA trail construction and codes, as well as city standards and use specified material and fittings. A separate bike-specific trail would remove much of the bike traffic from trails heavily used by hikers. This work would be done with local volunteers and be funded by local bikers and businesses.

The following management actions are recommended on an on-going basis

- Locate any areas where runoff has or is creating washouts and build drains, swales, and retaining structures as needed to repair and eliminate the problem
- Add natural surface material to any sections with excessive erosion and in areas where excessive moisture creates extended muddy conditions
- Block unauthorized trails with natural vegetation and materials such as boulders and logs found on the site to encourage the eventual re-vegetation of these areas.

# ***Public Services and Amenities***

## **Existing Public Facilities**

The existing public amenities on Canfield Trails are limited to directional signage and one trash receptacle at the entrance to the property. As a natural open space, additional amenities on the existing site should be limited to those needed to support the existing public use. If a suitable location is identified and secured to provide a trailhead for the site, additional amenities may be provided depending on the terrain, size, natural habitat, and location of the site.

## **Recommended Management Actions**

1. Additional Amenities on the Existing Property There is a need for the following amenities on the existing site

- Increased directional signage utilizing routed plastic sheets with white text on a brown background, the same as the existing signs
- A trail-map sign at the entrance to the existing trail system with a protective kiosk able to support informational materials (and constructed of natural materials to blend in with the site)

2. Amenities Proposed for a Future Trailhead. If a site is secured for a trailhead, additional amenities should be provided to support public use. If the site is able to accommodate them based on the restrictions imposed by the location and size, the following amenities should be considered

- A restroom shelter to contain portable toilet units
- A limited picnic area
- Trash receptacles
- Educational signage
- Benches
- A small picnic shelter

## **F. Winton Park Natural Area**

### ***Introduction***

1. *Site Description*
2. *Goals*

### ***Habitat Management***

1. *Natural Habitat Description*
2. *Recommended Management Actions*

### ***Wildlife Management***

1. *Wildlife at Winton Park*
2. *Recommended Management Actions*

### ***Fire Prevention and Protection***

1. *Site-specific Fire Dangers*
2. *Recommended Management Actions*

### ***Access and Connectivity***

1. *Existing Site Access, Trails, and Service Roads*
2. *Recommended Management Actions*

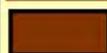
### ***Public Facilities***

1. *Existing Public Facilities*
2. *Recommended Management Actions*

# Winton Park



## Legend

-  Park Boundary
-  Park Facilities
-  Existing Multi-use Paths
-  Proposed Hiking Path
-  Natural Area Boundary

# ***Introduction***

## **Site Description**

Winton Park is a six-and-a-half acre park located at the intersection of Lacrosse Avenue and Melrose Street next to Winton Elementary School in an older, established, residential neighborhood. The park is jointly-owned by the City of Coeur d'Alene with the Coeur d'Alene School District. Approximately three-and-a-half acres on the south side of this park are maintained as a natural open space with the remainder of the park being used to support active recreation. The developed portion of the park includes a large horseshoe pitching facility, restroom building, basketball court and a softball field. The natural area backs up to the exit ramp from US-95 to Northwest Boulevard and overlooks those roadways as well as the Spokane River. Located in the natural area is a park gazebo available for public use and which is connected to the rest of the park by a paved trail. Three benches are also located in the natural area. Chain link fencing separates the natural area of the park from US 95. The site contains informal trails likely created by neighborhood residents. Access to the natural area is through the developed portion of Winton Park. The park is accessed from sidewalks and on-street parking on Melrose Street and through a small parking lot on Lacrosse Avenue owned by the school district. There is no public access from US 95 or Northwest Boulevard. The Coeur d'Alene School Board has expressed interest in acquiring the entire site in order to rebuild Winton Elementary. At least part of the site was originally purchased using a grant from the Land and Water Conservation fund which would complicate any transfer of ownership. In the event that a land transfer or exchange was to be made with the school board, the city should work towards securing a similar-sized natural area in return, and should endeavor to replace the public facilities in this park with equivalent facilities as close to the present location as possible.

## **Goals**

The Coeur d'Alene Parks Department needs to establish the long term status of this property. For the purposes of this management plan, it is assumed that Winton Park will continue to be maintained by the Coeur d'Alene Parks Department in its present configuration. The natural area of Winton Park should be maintained as such with minor improvements. The site should be utilized to provide better access to Winton Park. Enhancing the opportunities to enjoy the views from the natural area and for walking on the site are worthwhile objectives.

# ***Habitat Management***

## **Natural Habitat Description**

The natural area of Winton Park consists primarily of an open-canopy, mature ponderosa pine forest with an understory dominated by grasses. There are almost no shrubs or ladder fuels on the property. Some exotic plants, including spotted knapweed, are present on the site. The natural area of the park is relatively isolated from other natural areas and opportunities to connect this habitat to the larger environment are non-existent.

## **Recommended Management Actions**

1. Eliminate Exotic and Invasive Plants. To maintain a healthy natural environment it is always desirable to prevent the spread of invasive and exotic weeds. At Winton Park these efforts should include

- Identifying invasive and exotic weeds in the natural area of the park
- Using mechanical, chemical, and cultural methods of removing and eliminating exotic and invasive plants.
- Seeding the area with native grasses and wild flowers.
- Timing the mowing of the site to encourage native plants to grow while preventing noxious weeds from seeding.
- Removing dead and dying black locust trees located near Melrose Street
- Pursuing an agreement with the Idaho Transportation Department to allow the city to remove black locusts in the US 95 right-of-way and replace them with more appropriate trees

2. Increase Tree Species Diversity in the Woodland As opportunities become available due to tree mortality in Winton Park, it would be desirable to increase the tree diversity on the site by

- Planting western white pine seedlings that are blister-rust resistant and practicing accepted sanitation methods such as pruning
- Planting of western larch trees where openings in the forest exist
- Planting Douglas-firs and grand firs in appropriate locations

# ***Wildlife Management***

## **Wildlife in the Winton Park Natural Area**

Due to its isolation from larger forested parcels and a lack of cover on the site, wildlife in Winton Park is very limited. Observed wildlife has been limited to small mammals and songbirds. Because of Winton Park's location in a residential neighborhood and near two major roadways, it is not necessarily desirable to encourage larger animals to visit or live in here. Given the limitations of the site, efforts to improve the wildlife habitat for small mammals, songbirds and cavity nesters should be made.

## **Recommended Management Actions**

1. Improve Habitat for Small Mammals and Birds Efforts should be made to improve wildlife habitat at Winton Park for the benefit of songbirds, cavity nesters and small mammals. With the limitations imposed by the parks small size and isolated location the following management actions should be accomplished

- Create one or two dead snags in the park at locations away from trails, facilities, and property borders by utilizing the existing ponderosa pines
- Install several nest boxes in trees
- Leave or place two or three large diameter logs near the west boundary of the natural area where they would not interfere with any public use of the site.

2. Add a Small Butterfly Garden. To encourage beneficial insects and to create an environment to provide educational opportunities while beautifying the park, a small butterfly garden should be developed utilizing native flowering plants in the area containing overgrown plant beds. This garden should be developed by

- Replacing the old plant beds with new planting areas
- Installing dripline irrigation to water the plantings
- Using native flowering plants
- Including informational signage

# ***Fire Protection and Prevention***

## **Site-specific Fire Issues**

Winton Park is adjacent to a residential neighborhood, a public elementary school and a commercial building. Although there is very little accumulation of fuels on the site and the natural habitat has been highly managed, it is critical that an uncontrolled wildfire not be allowed to happen on this site and that any woodland fire that does occur be extinguished promptly. Issues related to wildfire on the site include

- Close proximity of private buildings without fire-rated roofing
- An immediately adjacent elementary school
- Disruption of traffic on highly traveled nearby roadways from smoke

## **Recommended Management Actions**

To mitigate the danger from uncontrolled wildfires on the natural area of Winton Park the following management actions should be completed

1. Continue Managing the Fuels on the Site Currently this site has been highly-managed to reduce ladder and flashy fuels and to prevent them from accumulating. This effort should continue through

- Selective management of the natural vegetation
- Prevention of excess build-up of organic fuels

# ***Access and Connectivity***

## **Existing Site Access, Trails, and Roads**

Existing public access to the natural area at Winton Park is provided through the facilities present in the developed portion of the park. A paved trail connects the gazebo within the natural area to the restroom building and the rest of Winton Park. Sidewalks are located adjacent to the natural area along Melrose Street. A fence prevents public access from the US 95 exit ramp. A well-worn trail is located between the park and the parking lot of the nearby commercial building indicating that this path, although not formally open to the public, is heavily used.

## **Recommended Management Actions**

In order to maintain and improve existing access and to connect the natural area at Winton Park the following actions should be completed

1. Create an access from US 95 East of the Exit Ramp There is no access from US 95 in to Winton Park or the natural area. The south end of Melrose Street is less than twenty feet from US 95. An access at this location would allow additional use of the park. A south side access should include

- A sidewalk from the intersection of US 95 and Lincoln Street to the south end of Melrose Street along and above US 95
- A sidewalk along Melrose Street to the service entrance of the park
- Having this sidewalk directly connected to the existing sidewalk in the park
- Signage identifying the access as an entrance to Winton Park

2. Connection to Northwest Boulevard. A trail or walkway should be constructed between the natural area at Winton Park and the sidewalk along Northwest Boulevard. This connection needs to

- Secure an easement across the vacant commercial land at the intersection of Northwest Boulevard and US 95
- Be designed to maintain a reasonable grade through the use of switchbacks, grade changes to the land, or, steps, if necessary
- Continue to the paved walkway at the park gazebo
- Include signage identifying this access as an entrance to Winton Park

2. Walking Trail on the South Side of the Natural Area. To provide the opportunity to enjoy the natural area of Winton Park, a walking trail connecting the two proposed new accesses to the park should be constructed. This trail should

- Utilize, as much as possible, the unofficial trails already in the park

- Be directly connected to the sidewalk on Melrose Street and the paved walkway near the gazebo
- Include a route to the scenic viewpoints overlooking the river
- Have a natural or dirt surface
- Be designed to the standards laid out in the open space management plan
- Possibly include a small bridge over a small gully as a focal point

# ***Public Services and Amenities***

## **Existing Public Facilities**

Public facilities at Winton Park include a restroom building, picnic gazebo, horseshoe pits, ball field, basketball courts, and picnic tables. All of these facilities are readily accessible from the natural area of the park. The restroom facility in the park is in need of replacement or renovation. The horseshoe facility in the park is used for regional tournaments.

## **Recommended Management Actions**

To provide additional amenities to the public the following may be added to the natural area

1. Educational Signage An interpretive display may be appropriate at the overlook of the Spokane River
2. Burial Trash Cans A burial trash can should be installed next to the gazebo
3. Replace Roof of Gazebo The roof of the gazebo is made of non-fire rated singles and is nearing the end of its useful lifespan. These shingles should be replaced with fire-resistant material
4. Replace Benches in the Natural Area. The two benches along Melrose Street should be replaced with benches that have backs and relocated further into the natural area to focus on a proposed butterfly garden