

Chehalem Ridge Nature Park Access Master Plan

October 19, 2017

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Executive Summary

Chehalem Ridge Nature Park is poised to become a vital part of the region's conservation strategy and a place for community members to enjoy natural wonder.

Rising above the Tualatin Valley, this ridgetop forest offers views from the Cascades to the Coast Range. Streams on Chehalem Ridge flow to the Tualatin River, which provides drinking water for hundreds of thousands of people. Located within easy access from Beaverton, Hillsboro, Cornelius and Forest Grove and with links to important habitat areas, the Chehalem Ridge Nature Park will become an important component of a connected regional system of parks, trails and natural areas. Chehalem Ridge already serves as a vital habitat anchor, and it will soon be a place for the public to relax, learn about the environment and take in the stunning views through a network of trails and other visitor amenities. Once developed, it will be the second-largest contiguous nature park within Metro's portfolio. Nowhere else in the greater Portland region can residents be immersed in nature and inspired by sweeping views of both the Coast and the Cascade mountain ranges.

In 1995 and 2006, voters approved bond measures to protect water quality, wildlife habitat and provide opportunities for nature-based recreation across the region. This public investment is responsible for the growth of Metro's portfolio of

The goals of the Chehalem Ridge Nature Park Access Master Plan include:

Protect significant landscapes

Develop and operate a welcoming place

Provide diverse and meaningful opportunities

Build relationships, awareness and trust



parks and natural areas, including the protection of the Chehalem Ridge Natural Area. In 2013 and 2016, voters approved five-year local option levies to help care for these lands. As a result, Metro is restoring habitat and expanding opportunities to experience and learn about nature across the region, as well as improving parks for visitors and supporting community-led projects with shared goals. This access master plan is funded by both the 2006 bond and the 2013 levy.

When Metro purchased Chehalem Ridge in 2010, it was a commercial timber farm, proposed for development as rural estate homes. Seven years of work including forest thinning, native plantings, stream restoration and road decommissioning have already helped transition the site towards a healthy, maturing landscape that will remain conserved.

Community participation and ideas have helped create this plan to guide the future of Chehalem Ridge. The nature park planning process began in early 2016. Metro engaged community members, stakeholders and technical experts in assessing opportunities and challenges related to the development of a nature park. A diverse Stakeholder Advisory Committee was established for the project and met three times to share expertise and insights into community needs and desires. Committee meetings, seven community events, conversations with community members and thousands of comments submitted online helped to identify community needs and priorities. This input informed activities to be supported at Chehalem Ridge as well as locations for both public access improvements and protection of undisturbed habitat areas.

Based on this input, the Recommended Plan (Figure ES 1) includes the following elements:

- A multi-use trail as a spine along most of the park's namesake ridge, providing a link to multiple site experiences and maximizing opportunities for views in several directions.
- A range of ways to experience and understand the site, with potential to traverse the length of the site and provide a longer 'out and back' walk, cycle or horse ride, with interpretation throughout.
- Habitat protection and enhancement focused in large, contiguous blocks on the nature park's western slopes, although resource conservation will occur throughout the park.
- Habitat connectivity maintained through corridors to the north, west, south and along riparian corridors flowing east and west from the ridge.
- A celebrated viewpoint from the park's highest point, Iowa Hill, where an old oak tree has stood for decades. A trail connection to Iowa Hill culminates in an overlook, with places to sit and interpretive information to encourage visitors to pause and take in the view.
- A trailhead established off Southwest Dixon Mill Road, which was determined to be the most feasible access location.
- A secondary trailhead in the northern portion of the site as a long-term improvement to facilitate access from urban areas and provide efficient access for maintenance and emergency response.

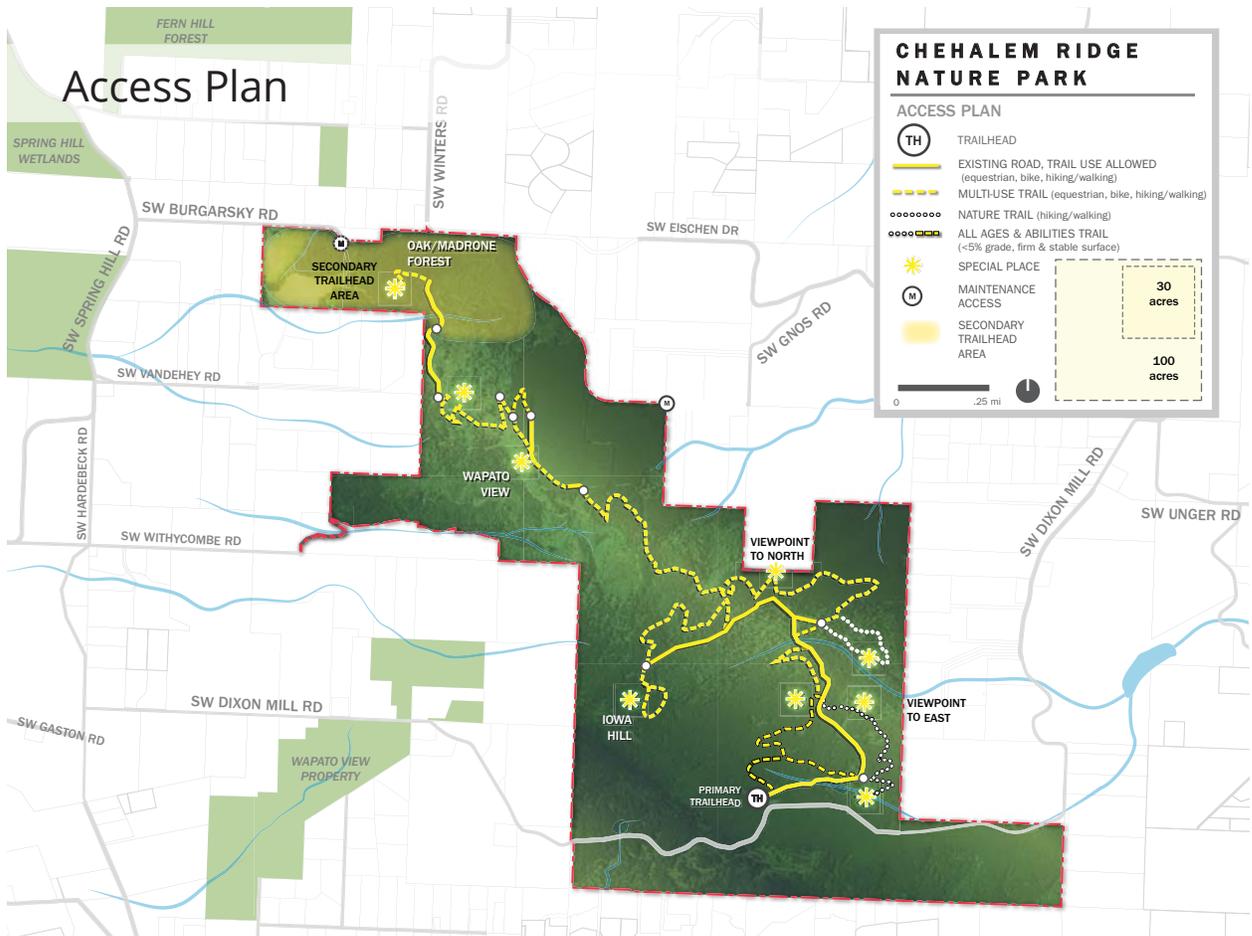


Figure ES 1: Chehalem Ridge Nature Park Access Plan

The primary trailhead will accommodate approximately 70 - 80 cars and include a bus drop-off for groups and students. A small equestrian trailhead is proposed to be adjacent to vehicle parking. A multi-purpose shelter for general use by groups is included, as are restrooms and a picnic area. In the vicinity of this trailhead, nature play facilities are proposed. Given that the bulk of visitor improvements are concentrated at the south end of the park, a small workshop and fenced yard will facilitate operations and maintenance activities.

Chehalem Ridge Nature Park's 1,230 acres offer countless opportunities to enjoy the sights, sounds and textures of the natural environment. There are a number of places that offer a particularly special or unique experience. When planning the system of future trails, the project team considered how to provide access to as many of these special places as possible while also protecting the natural assets of the site.

“Restoration work will be ongoing at Chehalem Ridge Nature Park. Active forest management will continue across most of the natural area for decades. Metro will continue to monitor and treat invasive non-native plants and consider other projects to enhance water quality and wildlife habitat.”

Metro scientist

“The more kids we get outdoors in natural places, the better protected those places will be in the long term.”

“Mientras más niños estén al aire libre en lugares naturales, más protegidos estarán esos lugares a largo plazo.”

Public Comment

Phasing

After the design and permitting process, construction of the first projects is projected to begin during the summer of 2019. Metro’s goal is to open the site to the public in early 2020. Funding is currently set aside to complete an initial first phase project. Depending on costs at the time of construction, the following improvements could comprise a logical Project 1. This would include the following elements (see Figure ES 2):

A trailhead at Southwest Dixon Mill Road

- Passenger vehicle and equestrian parking
- Multi-use shelter and picnic area
- Entry plaza with vault toilets
- Welcome kiosk with map and information signs
- Lawn area for family activities
- Drinking fountain and trash/recycling receptacles

Trails (approximately 3 miles total)

- 1 - 1.5 miles of multi-use trails
- 0.5 miles of nature trails
- A 1 - 1.5 mile subset of all ages and abilities trails
- 1.5 miles of site roadway repurposed for trail use
- Wayfinding and regulatory signs
- Benches and overlooks

Maintenance yard – to support facility operations

Subsequent phases, to be initiated once additional funds are identified, will include an expansion of trailhead features, additional trails, site interpretation, nature-based play opportunities and the secondary trailhead.



Figure ES 2: Proposed Phasing Plan



1. Introduction and Plan Overview

Chehalem Ridge Nature Park is poised to become a vital part of the region's conservation strategy and a place for community members to enjoy natural wonder. Located within easy access from Beaverton, Hillsboro, Cornelius and Forest Grove and with links to important habitat areas, the park will become an important component of a regional connected system of parks, trails and natural areas. The Chehalem Ridge already serves as a vital habitat anchor, and it will soon be a place for the public to relax, learn about the environment and take in the stunning views through a network of trails and other visitor amenities. Once developed, it will be the second largest contiguous nature park within Metro's portfolio. Nowhere else in the metropolitan region are residents able to be immersed in nature and inspired by sweeping views of both the Coast and the Cascade mountain ranges.

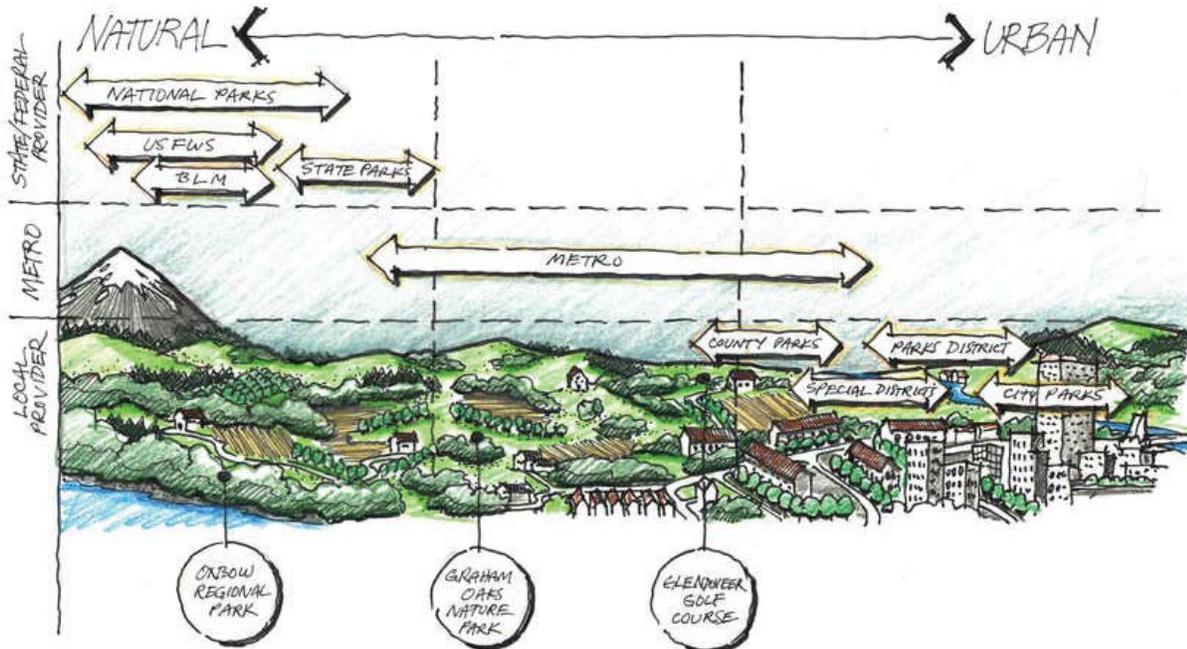
“Protect large, undeveloped tracts of forestland to protect water quality, wildlife habitat and connections and to provide public access opportunities.”

Metro Ridgetop to Refuge Target Area Refinement Plan 2007

Bond Measures

In 1995 and 2006, voters approved general obligation bond measures to protect water quality, restore fish and wildlife habitat and provide opportunities for nature-based recreation across the region. This public investment is responsible for the growth of Metro’s portfolio of parks and natural areas, which today totals roughly 17,000 acres. Recognition of Chehalem Ridge’s ecological value made it a high priority for land acquisition funded by the 2006 bond measure. The 2006 bond measure specifically recognized the northern end of the Chehalem Mountains as a unique opportunity to protect large, undeveloped tracts of forestland to restore fish and protect water quality and wildlife connections from the mountain range to area river bottomlands.

Metro undertook a public refinement process in 2007 to establish specific acquisition strategies, goals and objectives for different “target areas” identified throughout the region. The process included the compilation of available information about the target areas, biological field visits and expert analysis of maps, interviews with key stakeholders and seven public open houses. The Refinement Plan defines the goal for the Ridgetop to Refuge Target Area (which includes Chehalem Ridge) at left (sidebar). Acquired in several portions since 2006, this land and other holdings in what Metro has named the “Upper Tualatin Naturehood” represent a significant addition to the metropolitan region’s protected natural resources.



As a park provider, Metro focuses on large-scale conservation of natural areas close to home in an urban setting. Metro acquires and provides access to large sites that typically are beyond the reach of local jurisdictions, but closer to population centers than those managed by state and federal providers.

Natural Areas Levies

In 2013, voters approved a five-year local option levy to help care for regional parks and natural areas. As a result, Metro is restoring habitat and expanding opportunities to experience and learn about nature across the region, as well as improving parks for visitors and supporting community-led projects with shared goals. Nearly half of all levy funds go toward land restoration and management, including controlling invasive plants, planting native species and improving habitat for fish and wildlife. This access master plan is funded by both the bond and the levy.

The 2013 natural areas local option levy was renewed by community members in 2016. This additional funding extends the support for the care of regional parks and natural areas to the year 2023.

“Naturehoods are defined as places with unique geographic and ecological identities. Each naturehood provides a new way of thinking about where you live, just as meaningful as your neighborhood or the Pacific Northwest.”

2016 Parks and Nature System Plan



Scouters Mountain Nature Park, a Metro Parks and Nature project that opened in 2015.

Access Master Plan Purpose and Objectives

In early 2016, Metro initiated a public master planning process for Chehalem Ridge Nature Park. This access master plan provides a long-term vision and implementation strategy to guide future public use and development of the nature park. This document establishes project goals and objectives, outlines site resources and conditions and summarizes the planning process. Employing principles of landscape ecology and landscape-level design strategies, the plan identifies site access locations and approximate trail locations. It also presents initial approaches for development of trailheads and strategies for implementing future development.

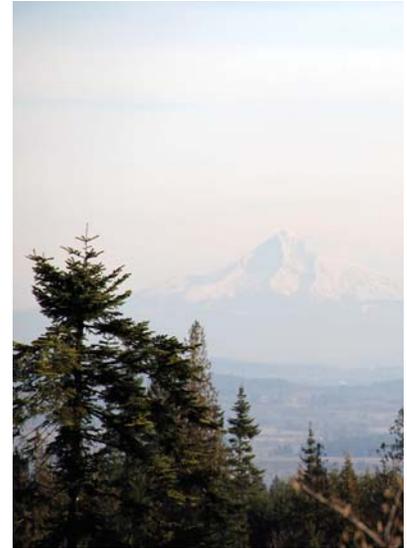
Metro intends to develop public access to the site in a sensitive and balanced way that ensures healthy habitats and continued protection of the many ecological benefits this site provides for our region.



View of the Tualatin Valley from Chehalem Ridge.

Project Goals

Metro Parks and Nature protects water quality, fish and wildlife habitat and creates opportunities to enjoy nature close to home through a connected system of parks, trails and natural areas. The goals of the Chehalem Ridge Nature Park Access Master Plan follow this department mission, as articulated in Metro’s 2016 Park and Nature System Plan. Core elements of the Access Master Plan are protecting nature, supporting outdoor education and connection with nature, ensuring equal access for diverse users and responsibly managing parks and natural areas. The core elements are reflected in the goals below:



Protect and Conserve Nature

Goal: Protect significant landscapes

Objectives:

- Support the unique value of Chehalem Ridge as a large habitat patch, offering regional conservation connectivity.
- Establish a framework for addressing access with respect to conservation issues.
- Provide a vision for public access in balance with natural and cultural resource management of the site over the next twenty years.
- Acknowledge the necessity of restoration management over time.
- Evaluate project opportunities, constraints and alternatives with a conservation lens.



Create and Maintain Great Places

Goal: Develop and operate a welcoming place

Objectives:

- Identify and plan for the recreational needs of underserved community members.
- Implement findings from the Connect with Nature program, which engages underserved communities in planning welcoming parks and natural areas.
- Be inclusive by incorporating universal design elements. Utilize durable and sustainable materials, consider life cycle costs.
- Coordinate with local fire and emergency response providers to enforce rules and ensure public safety.





Connect to Nature

Goal: Provide diverse and meaningful opportunities

Objectives:

- The ways in which people want to experience nature are as diverse as our community members. Program appropriate support facilities to meet the range of potential participants.
- Determine and respond to regional outdoor recreation needs and emerging trends.
- Actively encourage participation and visitation by all demographic groups including people from all cultural backgrounds, ages, genders, and levels of ability.
- Seek opportunities to work with Partners in Nature applicants to increase the capacity of underserved communities to be conservation leaders.



Support Community Aspirations

Goal: Build relationships, awareness, trust

Objectives:

- Reinforce existing relationships while building political will and community support via an open and transparent planning process.
- Through an inclusive process, build capacity for future site stewardship and conservation leaders.
- Acknowledge adjacent agriculture and honor their economic and resource value to our community and state.
- Be accessible to all members of our community. Be present at established community events. Ask how we can best engage and serve diverse communities.



MY VISION FOR CHEHALEM
RIDGE IS
to increase habitat
for native species

Planning Process Overview

Metro engaged community members, stakeholders and scientists in assessing opportunities and challenges related to the development of a nature park. A Stakeholder Advisory Committee was established for the project, and met three times to share technical expertise and insights into community needs and desires. Committee meetings, seven community events, conversations with community members and thousands of comments submitted online helped to identify community needs and priorities. This input informed activities to be supported at Chehalem Ridge as well as locations for both public access improvements and protection of undisturbed habitat areas.

This process relied on available data, principles of landscape ecology, the expertise and experience of local natural resource scientists and wildlife biologists, and landscape-scale design strategies to determine the most appropriate opportunities for public access and connection with nature.

"I think this is an excellent idea in our region, there is nothing like it near and we have to go to other places to find something like it with our family, thank you."

Public Comment



Audience at a Chehalem Ridge Nature Park Public Open House



2. Site Assessment

The Chehalem Ridge Nature Park will incorporate public access, habitat restoration and ongoing management. Designing access to and within the Park requires a clear understanding of its history and context. The early phase of the master planning process was dedicated to understanding detailed site conditions, regional recreation needs and gaps and working closely with habitat specialists so that human access to the site is compatible with habitat conservation and enhancement.



Illustration of the Wapato plant (*Sagittaria latifolia*).

When mapped in 1852 by the General Land Office (GLO), the general area was described as "hilly and broken with deep ravines Timber principally Fir considerably burnt and fallen with dense undergrowth of Hazel, Vine-maple & Fern". These early descriptions indicate the Chehalem Mountains were not forested at the time of Euroamerican contact.

History of the Chehalem Ridge

The following is directly excerpted from the Cultural Resource Survey for Chehalem Ridge Nature Park, prepared by Willamette Cultural Resources Associates (November 20, 2012). There are five federally recognized tribes in Oregon. While they did not confirm the information below, they should be engaged going forward in order to authentically understand their history as well as current relationship with the land.

The Chehalem Ridge Nature Park area lies near the heart of the traditional homeland of the Tualatin Kalapuya People. The center of Tualatin Kalapuya settlement was around Wapato Lake. No winter settlements have been identified in the Chehalem Ridge area, but one winter village (ča-ma'mpit) was probably situated near the mouth of Hill Creek, which formerly emptied into southeastern Wapato Lake and drains the southern slope of Iow Hill (at the southern end of the Park). Subsistence was based primarily on foods gathered in summer and fall, processed and stored for winter consumption. In early fall, families began gathering around Wapato Lake for the major harvest of wapato.

The traditional Tualatin Kalapuya life began to change in the late 1700s as a result of Euroamerican contact. The most devastating impact was the result of the introduction of Euroamerican diseases. The earliest known Euroamerican description of the area was by fur trader John Work of the Hudson's Bay Company, who led a trapping party through the Chehalem Valley in May 1834. He described the Chehalem Mountains as "low hilly country covered with bushes and some trees, principally oak". The group's route appears to have been along the western base of the mountains as Work referenced Wapato Lake ("a kind of swamp or lake") to their west.

Fur traders and trappers were a relatively transient presence in the region through the 1830s. Christian missionaries became a more permanent presence beginning in the late 1830s, with missions in the northern Willamette Valley. The early 1840s witnessed the first major immigration of American settlers to the Willamette Valley. The Tualatin Kalapuya People ceded their traditional homeland but reserved lands around Wapato Lake as a permanent home. The Tualatin Kalapuya who had survived the epidemics were forcibly removed to the newly defined Grand Ronde Reservation in the winter and spring of 1856, after instatement of a removal policy by the U.S. federal government.

In the Chehalem Ridge area, early settlement focused on the lower elevation lands to the north along the Tualatin River and the valleys to the west and east, which offered the best agricultural lands. More mountainous areas were initially viewed primarily as sources of timber and grazing areas for livestock.

The area remained very rural and relatively isolated from other parts of the northern Willamette Valley due to the poor roads and lack of access to river transportation.

Transportation improved substantially with construction of the Oregon Central Railroad in 1869. Joseph Gaston, the major promoter of the railroad, founded the town named for himself. Gaston also undertook the initial efforts to drain Wapato Lake for conversion to farmland. The new town of Gaston served primarily as a service center and transportation node for local farmers. In the early 1900s, logging in the Coast Range began contributing to the local economy. Small sawmills had operated in the area since the first years of Euroamerican settlement, primarily to serve local markets. The thinly forested Chehalem Mountains were not a focus of the lumber industry in the early years but small-scale logging appears to have occurred.

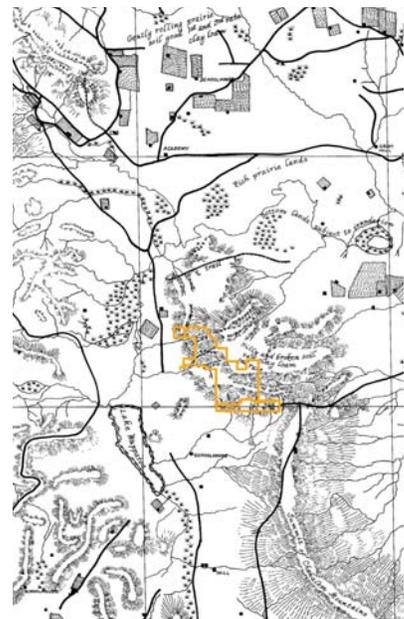
More recently, the majority of the Chehalem site was managed as an industrial tree farm by Stimson Timber Company. Stimson converted approximately 550 acres of farmland into densely stocked Douglas-fir plantations in 1991. Prior to Stimson's ownership the property had been in agricultural or forestry use. The Zaiger family operated a lumber mill on the property and the old mill pond is still present, located just north of Dixon Mill Road near the western property boundary. There were several old homesites on the property used by the Zaiger family or farmers, but none of the structures remain.

There are no significant natural areas or cultural/historic resources on site according to the Washington County Rural Natural Resource Plan. A field survey completed as part of Metro's 2012 cultural resource report examined sites that were deemed likely to contain artifacts; however, no historic or pre-contact archaeological materials were found. The nearest historic farm in the area can be found at the corner of Southwest Spring Hill and Southwest Sandstrom Road.

Between 2008 and 2010, Metro purchased 1,230 acres of Chehalem Ridge's forested ridge on the west edge of the region, -- Metro's largest land purchase to date -- with the long-term goal of transforming the land into healthy forest habitat and a protected, publicly-accessible nature park. The community that surrounds the Chehalem Ridge Nature Park will be a key partner in continuing to protect and manage this important land and its creeks that drain into the Tualatin River, the source of drinking water for over 360,000 local residents (see Figure 2.1—Regional Context).



Aerial views of the Chehalem Ridge in 1994 (top) and in 2016 (bottom) show its conversion from a mix of forest and farmland into dense Douglas fir plantation.



The Park's boundary overlaid on a reproduction of an 1852 Survey Map of the region.

Regional Conservation Context

Chehalem Ridge Nature Park is a critical property in a growing system of protected public open spaces in the Tualatin River watershed. Streams originating at Chehalem Ridge all empty into the Tualatin River, which provides drinking water for over 360,000 residents in Washington County. This makes Chehalem an important asset in pursuing Metro’s mission of protecting habitat and water quality, both through biological rehabilitation and utilizing the park as a tool for education about watersheds, forest health and water quality.

Chehalem has a diverse ecological context and several potential important habitat connections. Fernhill Wetlands is part of more than 700 acres in Forest Grove owned by Clean Water Services and managed in partnership with the City of Forest Grove and Fernhill Wetlands Council. It is also a popular destination for birders who come to see migratory birds using this important stop on the Pacific Flyway. The wetlands include Fernhill Lake, Cattail Marsh, Eagle Perch Pond and Dabbler’s Marsh, all accessible to the public by trails.

Both south and west of Fernhill Wetlands, additional bottomlands have been protected by Metro at Carpenter Creek Natural Area and Penstemon Prairie. These do not offer public access and are often flooded, providing critical habitat for waterfowl and migratory birds. Fern Hill Forest is adjacent to Penstemon Prairie to the southeast, and it protects a steep forested hillside and a key potential habitat connection between Chehalem and the complex of protected wetlands along the Tualatin River.

The 246-acre Spring Hill Wetlands Natural Area consists of two parcels, separated by a private parcel in between. The property also includes significant swathes of wetlands, floodplains and riparian forests that are home to a variety of birds and wildlife. A large parcel to the west owned by the Joint Water Commission is protected through Natural Resource Conservation Service conservation easements. The property continues to be used for agriculture under long-term leases.

To the south of these natural areas, the Wapato Lake National Wildlife Refuge (managed by the US Fish and Wildlife Service) is a key habitat area and stopping point for migratory birds on the Pacific Flyway. A habitat connection between Chehalem Ridge and the Refuge is a conservation goal. (See Figures 2.1 and 2.2 on facing page).



Penstemon Prairie



Wapato Lake



Habitat Connectivity

The January 2014 Metro Site Conservation Plan summarizes Chehalem Ridge Nature Park's habitat conditions and restoration targets. For the purposes of this plan, key excerpts have been summarized. The Site Conservation Plan suggests that the following habitat connections are important considerations in future site planning. (The following text is excerpted verbatim from Metro's 2014 Site Conservation Plan):

- Connections to the east through agricultural lands to key bottomlands are tenuous, with significant woody vegetation gaps. To the west, Metro has purchased 147 acres that includes 5,840 feet of an unnamed tributary draining to the Wapato Lake unit of Tualatin National Wildlife Refuge. The northern and southern branches of Harris Creek also provide connections through farms and fragmented forest and woodland habitat.
- To the north, relatively intact forested areas connect to Fernhill Wetlands and other key Tualatin River floodplains. A segmented riparian corridor initiates from Chehalem Ridge in the same area but veers eastward via Jessie Reservoir to the Tualatin River.
- Christensen Creek and its tributaries provide a complex of linear connections among wetlands and ponds and to upland forests north of Bald Peak Road.
- A substantial forest complex runs from the southeast portion of the Natural Area and provides both a large habitat patch and connectivity to other habitats east and southward.

Wildlife

A biological assessment conducted for the Chehalem Ridgetop to Refuge target area in May 2007 identified the Oregon white oak components of the western slopes of the property as the lands with the most significant habitat value, in addition to the large blocks of upland forest habitat. Important biodiversity connections link the forested ridgetop Douglas-fir, mixed hardwoods and oak woodlands to the Tualatin River floodplain, including the Wapato Lake National Wildlife Refuge. Avian point count surveys have identified the deciduous habitats, particularly those associated with drainages, to be valuable habitat for neo-tropical migratory birds. Preliminary amphibian surveys have identified several wetland and stream complexes that provide habitat for state sensitive amphibian species.

Chehalem Ridge has a diverse wildlife population typical of large areas of forested habitat in the Willamette Valley. Many wildlife species are infrequently observed, but their sign – such as scat or droppings, tree markings, trails, bird songs and scent mounds – are visible to field staff and consulting biologists. After seven years of observations and surveys at the site, Metro has developed an account of many of the species present. Carnivores such as cougar, bobcat and coyote have been observed multiple times, as well as their more common prey such as black tail deer, Douglas squirrel, American beaver and ground-nesting birds such as the spotted towhee. A gap in our wildlife knowledge includes a more comprehensive understanding of the invertebrate, fossorial (ground-living animals), nocturnal and crepuscular (active at dawn and dusk) animals. In the future Metro will look for opportunities to survey for these animals, but expect the typical species found in young upland Douglas fir forests to occur at Chehalem Ridge and will manage for them. As the forest diversifies and ages, it is anticipated that species associated with older forest will begin to occur at Chehalem Ridge.



Wildlife at the Chehalem Ridge Nature Park is varied and includes multiples species of mammals, amphibians, migratory birds, and insects.

Site Restoration

The following text is excerpted verbatim from Metro’s 2014 Site Conservation Plan:

There is a range of habitat and restoration opportunities available at Chehalem Ridge [note, this refers to the Natural Area, pre-Nature Park]. The table below, adapted from the SCP, highlights the four primary Conservation Targets for the Nature Park (also shown on Figure 2.3). Key elements of the conservation strategy have already been initiated, including the decommissioning of old logging roads, forest thinning and restoration of riparian habitat around Christensen and Harris Creeks. High priorities are the restoration of early successional shrub habitat and upland old growth forest. Protection and enhancement of oak woodlands are listed as a medium priority for the site. Work will continue on all conservation targets regardless of rankings, but the rankings will help prioritize time or financial investments for various actions over the next three to five years. Conservation target priorities are likely to change over time.

Conservation Targets	Attributes of Healthy Habitat	Current cover	Desired Cover
Riparian habitats (headwater streams, wetlands, and ponds)	Except for herbaceous wetlands, high quality riparian habitat is generally associated with about equal amounts of native tree and shrub cover with good species diversity. Snags and downed wood are key habitat elements. Oregon ash, cottonwood, western red cedar, willow, and alder are characteristic tree species. This target includes 3.94 acres of forested wetlands.	106 acres	112 acres
Upland shrub habitat	The region’s upland shrub habitat is typically early successional forest. Healthy early successional forest communities may be characterized by 30% or greater shrub cover consisting of a variety of seed and nectar sources and trees less than 15’ tall, and a range of snags and down wood sizes and decay stages.	147 acres	42 acres
Upland forest	Healthy conifer dominated forest includes an overstory of deciduous and conifer trees of varying size, with significant (>25%) shade tolerant shrubs and native herbaceous species in the understory. Snags and downed wood in a variety of sizes and decay stages provide key habitat features. Shrubby forest gaps can increase diversity.	858 acres	937 acres
Oregon white oak woodland	Healthy oak woodlands typically may contain more than 60 oak-associated native herbaceous species and 25-60% native tree canopy, most of which is oak. A mixture of ages, including old trees as well as new growth, is desirable. Typically, the understory is relatively open with grasses, wildflowers, and some shrub cover.	89 acres	134 acres

Conservation Strategy

In our site design and management, Metro applies basic principles of conservation biology and landscape ecology, the latest science, and site-specific knowledge. For each of our natural areas, we develop a site conservation plan that identifies conservation targets. These targets are generally the habitat types, and occasionally individual species, that occur at our natural areas and for which we want to track conditions and changes over time. Some of the key principles we apply at all sites are:

- Protect large blocks of habitat in low or no use state
- Maintain or improve regional habitat connectivity
- Improve habitat via restoration
- Rely on subject area experts for guidance on important species
- Reduce fragmentation via road and structure removal
- Use old road networks for trails where suitable
- Implement Metro's No Pet policy

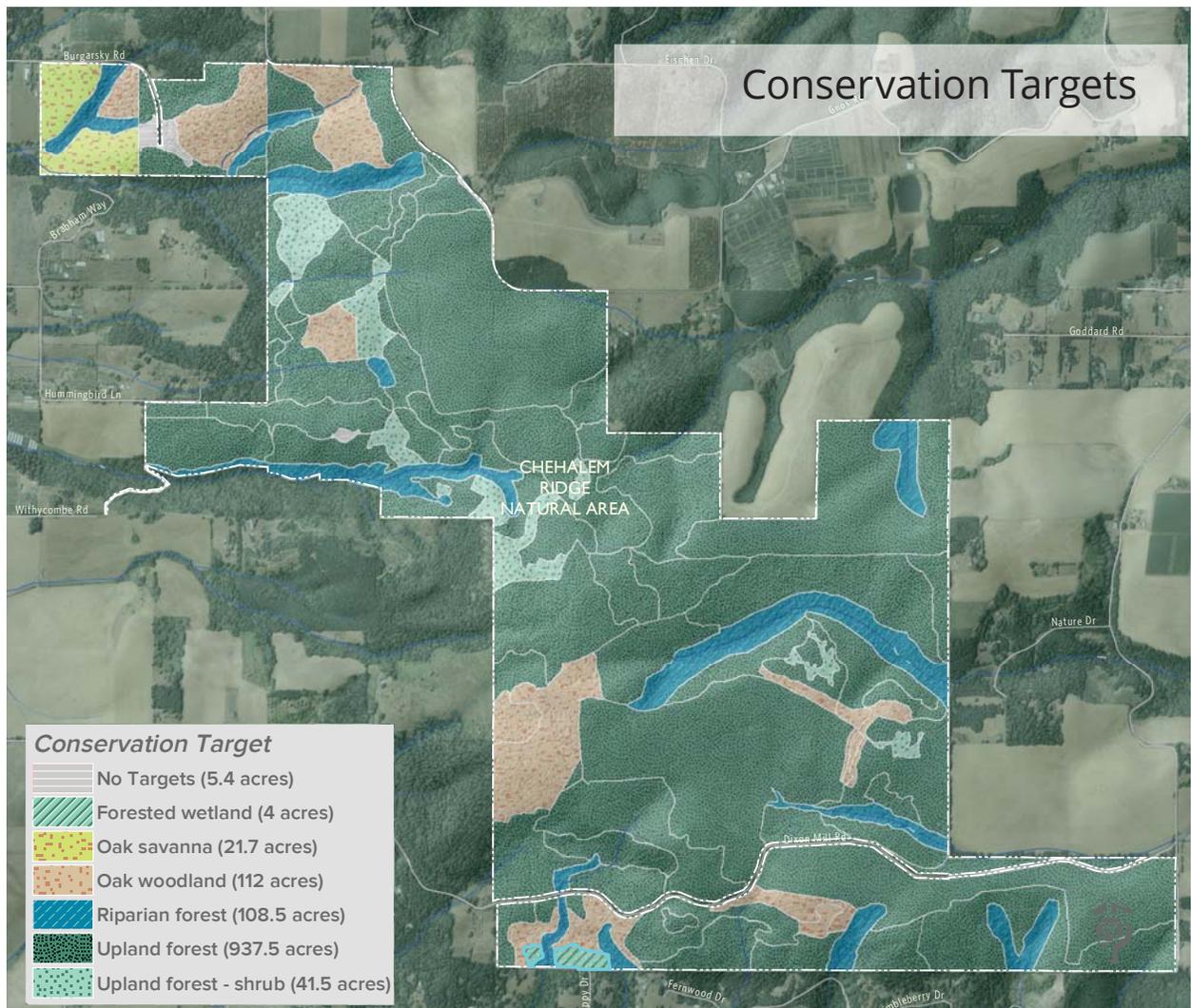


Figure 2.3: Conservation Targets



Metro offers a range of recreational and educational programs for young people at its various nature parks.

Recreational Context

Many parks, natural areas, and other public lands in the region already provide nature-based recreational amenities that complement the recreational opportunities envisioned for Chehalem Ridge Nature Park. Significant examples of these regional destinations are listed, with supporting information, in Appendix A: Precedent Facility Inventory. The most relevant representative examples are listed below.

L.L. “Stub” Stewart State Park (Oregon Parks and Recreation Department)

This 1,800 acre forested area is located on the eastern edge of the Tillamook State Forest and is located along the Banks-Vernonia State Trail. Its size is comparable to Chehalem Ridge, while its remote location (about 15 miles north of Forest Grove) makes it popular amongst hikers, mountain bikers, horseback riders, and other outdoor recreationalists that seek wilder surroundings away from urban areas.

Cooper Mountain Nature Park (Metro, managed by Tualatin Hills Park and Recreation District)

On a sunny weekend, the Cooper Mountain Nature Park is filled with families gathered at the picnic and play area, people taking in the view from the overlook, and joggers and walkers enjoying the 3.5 miles of trails through forest and meadows. The park’s 230 acres are located on the edges of Beaverton and Tigard, about a 15 minute drive from downtown Beaverton, making it a convenient destination for many residents. The park offers parking at no cost, trails (including a wheelchair-accessible loop trail) and a small nature center that holds nature classes and is also available to rent for private events.

Fernhill Wetlands (Clean Water Services)

The Fernhill Wetlands encompass approximately 100 acres of wetland, accessible to the public through 1.2 miles of trails. The wetlands are part of ongoing restoration and management by Clean Water Services, the Fernhill Wetlands Council and the City of Forest Grove. It is a popular location for walking and watching wildlife. Amenities include a parking area, public restrooms, and a picnic shelter. The master plan for Fernhill Wetlands includes a long term plan for a future learning center with space for a building, parking and access for school buses.

Hagg Lake (Washington County)

Hagg Lake Park is a well-used recreational and natural area owned by the U.S. Bureau of Reclamation and maintained and operated by Washington County. Located 25 miles west of Portland and only 5 miles west of the Chehalem Ridge Nature Park, Hagg Lake features numerous picnic areas, two boat launching facilities, wildlife viewing areas, fishing, disc golf, and other recreational attractions. Hagg Lake is a popular hiking and mountain biking destination in the metropolitan region.

Jackson Bottom Wetlands Preserve (City of Hillsboro)

Hillsboro Parks and Recreation owns this 635 acre rehabilitated wetland area. Jackson Bottom Wetlands Preserve (JBWP) includes short trail loops and significant wildlife habitat, drawing birdwatchers and wildlife enthusiasts to its numerous overlooks. The site includes an education center building, picnic shelters, restrooms, and other visitor amenities. There is no entry fee, but a \$2 donation is suggested.

In addition, the neighboring cities of Forest Grove, Cornelius, and Hillsboro complement Metro's mission of providing access to nature by offering numerous parks and facilities that serve the nature-based recreational needs of their community members.



Kids at Jackson Bottom Wetlands Preserve



Example of a park access road with entrance monument.



Southwest Dixon Mill Road, looking east from existing gated access point

Site Access

Vehicular Access

Visitors to Chehalem Ridge Nature Park may arrive from any direction. Several regional transportation routes provide access for vehicles to this future park facility. Public road rights-of way meet the Chehalem property at six different locations; each providing potential opportunities to access the site. Each option was assessed for public access as well as use for maintenance and emergency access. Three roads were deemed unfavorable for public access.

- Southwest Vandehey, a private street which terminates shortly before reaching the park boundary.
- Southwest Gnos Road, a road with several sharp turns and occasional semi-truck use.
- Southwest Withycombe, a road having narrow right-of-way, a creek crossing and steep terrain.

The following routes were found to be feasible options for vehicular travel and access to Chehalem Ridge.

North and West: Highway 47 and Spring Hill Road

- Three miles east from Highway 47, accessed from Spring Hill Road, Burgarsky Road is a straight, gravel, local road. Burgarsky Road extends 0.4 miles before reaching the park's northern boundary.
- Southwest Winters, a local roadway with visibility issues at the intersection with Southwest Blooming Fern Hill Road and ending in a steep gravel lane.

South: Southwest Dixon Mill Road

- Southwest Dixon Mill Road east-west through the southern portion of the Nature Park. Three miles east from Hwy 47, there is an existing access point to the park; primarily used for restoration activities and guided tours;
- An existing gate on Dixon Mill currently provides access to the Park for authorized users. However, existing site distances, in both directions, at the gate are determined to be inadequate.
- Approximately 1.5 miles of Dixon-Mill are currently unpaved.

East: Highway 219 and Southwest Unger Road

- Southwest Dixon Mill Road extends east and ends at Southwest Unger Road, which runs 4.5 miles to Highway 219, a major arterial connection to Hillsboro, the largest nearby city.

Bicycle and Trail Access

No designated bike routes currently connect directly to Chehalem Ridge. However, Highway 47 currently includes marked bike lanes from Forest Grove to Gaston. The Tualatin Valley Scenic Bikeway passes approximately three miles north of the site, by Geiger Road and Fernhill Wetlands. Both these bicycle routes could provide future connections to Chehalem. The County Vineyard and Valley Scenic Tour Route, while primarily a driving tour, is a key recreational route through the area. It passes just south of the site on Southwest Laurelwood Road.

Planned regional trails and scenic bikeways will eventually provide greater pedestrian and bicycle access to Chehalem Ridge. In particular, the following existing and proposed trails will connect cyclists and pedestrians to the park from around the region:

Highway 47/B Street Trail.

The closest dedicated bike and pedestrian trail to Chehalem Ridge is a short segment of path that runs along the north side of Highway 47 between B Street and Pacific Avenue in Forest Grove. A spur trail leads north from the south end of this trail to 16th Avenue, also in Forest Grove.

Yamhelas Westsider/Hwy 47 Trail

This is a grassroots-supported rail-to-trail concept that advocates for a trail on the historic Southern Pacific 'Westsider' rail line into a 17-mile multi-use recreational trail running from north of Highway 99W at Gun Club Road near Lafayette, to just north of Gaston. This trail will link up with the State Highway 47 Bicycle Trail (see above) and Hagg Lake. The railway grade is gradual and will provide recreational opportunities for walkers, hikers, runners, bicyclists, and horseback riders. Access is readily available from the county roads it crosses and nearby Highway 47. This future trail could connect to the Council Creek Trail and then the Banks-Vernonia Trail and the future Salmonberry Trail.

Council Creek Regional Trail

The Council Creek Regional Trail is envisioned as a multi-use pathway for pedestrians and bicyclists connecting the cities of Hillsboro, Cornelius, Forest Grove and Banks. Named for the scenic Council Creek that flows through these communities, the route offers views of both town and countryside. When completed, the 15-mile long trail will serve both recreational and commuting purposes. The trail will also increase access to jobs, schools, and recreational areas such as the Banks / Vernonia State Trail. The trail will also connect to Tri-Met bus routes and the MAX station in downtown Hillsboro.



The Tualatin Valley Scenic Bikeway attracts many touring cyclists during the summer months.



Yamhelas Westsider Trail concept map.

Future Regional Trail Connections

Throughout the master planning process, Forest Grove elected officials, staff and community members expressed support for a future trail connection extending between Forest Grove and Chehalem Ridge. Although a specific location has not been determined, a connection between Forest Grove and Chehalem Ridge could provide habitat and water quality protection as well as serve as a non-motorized connection from the urban area to Chehalem Ridge.

The 2007 target area refinement plan for the Chehalem area includes the following objective: Support future recreational trail opportunities by securing potential trail connections between Wapato Lake and/or Gales Creek to Chehalem Ridge.

The objectives of acquiring and protecting habitat connections between the upland forests of Chehalem and the bottomlands of the Tualatin River are also stated within the refinement plan. Such connections, if realized to both Wapato Lake and north to the Tualatin River, could also connect creating a trail loop linking several natural regional destinations.

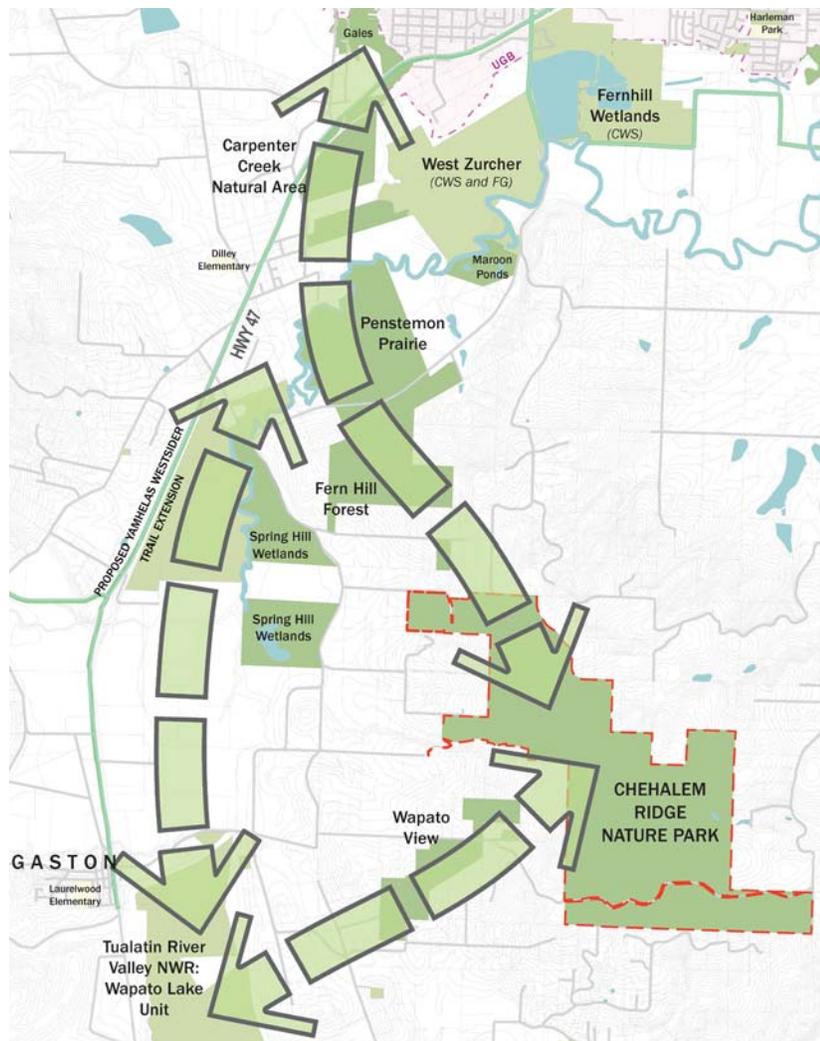


Figure 2.4: Metro already owns several natural areas between Chehalem Ridge Nature Park and Forest Grove and the Wapato Lake National Wildlife Refuge. Metro's objective is to acquire contiguous conservation areas between Chehalem and Gales Creek and/or Wapato Lake. Such connections could also create a recreational trail loop connecting each of the natural areas.

Transit Access

The site currently lacks direct transit access. However, transit routes exist to nearby areas and could bring visitors in relative close proximity to the future Park, especially since transit can accommodate bicycles. The westernmost TriMet MAX light rail station in Hillsboro is about 10 miles from the site. Cyclists currently ride MAX to reach Hillsboro from Portland and then ride on rural roads to regional destinations like Hagg Lake and the Banks-Vernonia Trail. Using future regional trails described above, Chehalem could become a similar destination.

TriMet's bus line 57 serves Forest Grove, about five miles from the site. Farther north, from Banks, riders can catch the Washington County Bus Service to Forest Grove and connect with the Forest Grove Grovelink. From McMinnville in the south, Yamhill County Transit Area runs Route 33 from McMinnville to Hillsboro. This line stops in Gaston at the Gaston Market, three miles west of the site, making this the closest transit access point to the site (and within a 1-hour walk), albeit one that would need to use rural roads without shoulders. A cyclist should find this connection to be much more comfortable. (See Figure 2.2)

The private, non-profit organization, Ride Connection, provides transportation services throughout the Portland metropolitan area and Washington, Multnomah and Clackamas Counties. Although primarily focused on older adults and people with disabilities, Ride Connection offers its' free-of-charge services to the general public in rural Washington County.

During the planning process, tours of the site were offered to the public in both English and Spanish languages. Due to transportation concerns raised by members of the Latino community, the tours lead in Spanish gathered at a central meeting place in the city of Cornelius. A shuttle transported participants eight miles or fifteen minutes to the existing access gate at Southwest Dixon Mill Road. Future nature tours at Chehalem could better serve diverse populations and minimize transportation barriers by meeting at community centers or urban areas and providing a similar shuttle service.



TriMet MAX runs to downtown Hillsboro



Shuttle buses used for nature tours at Chehalem

Site Roads

The property has a system of gravel roads, many of which were developed to access timber harvesting, that provide the main access to and through the property. These have been numbered to organize site management (Figure 2.9). Road 1A runs north-south, creating a main spine through the site. The road designated as 2A offers a loop off this main spine, with access to beaver ponds on Christensen Creek, a legacy oak tree, Iowa Hill and viewpoints to Mt. St Helens, Mt. Hood and the Tualatin Valley. The third major road, 3A, runs parallel to 1A at the top of the ridge and Spring Hill. Numerous dirt logging spurs intersect with these three main access roads. Some of the spur roads provide important access for long-term management activities across the property and have been numbered according to the main road they intersect. However, these “legacy” roads contribute to water quality issues and efforts are underway to decommission them. Some roads have already been decommissioned and no longer accommodate vehicles, but could become trail connections.

The proposed access master plan envisions the continued use of portions of Road 1A and 2A for site management, maintenance and emergency access. While portions of these existing roadways are steep, others will also be open to trail use. This is described in further detail in Chapter 5.



Site Conditions

Geology, Topography, Soils, and Water Resources

The Chehalem Mountains trend generally northwest from the Willamette River near Newberg to the Tualatin River near Forest Grove. They are composed of uplifted and folded Columbia basalts (Geologic Unit Tc), primarily found on the east slopes, overlying marine sediments primarily found on the west slopes (Geologic Unit Tsd).

The Nature Park slopes gently to the east from the ridgeline (which ranges from 900-1120'), and drops steeply to the west. The highest point on the site is approximately 1120' above sea level, at Iowa Hill. The lowest point is approximately 200' above sea level, on the west edge of the park near Southwest Burgarsky Road. There are considerable areas of steep slopes (over 25%) on the site, particularly in the northern and western parts of the site. (Figure 2.7)

The soils mapped in the project area (see Figure 2.8) are predominantly in the Laurelwood and Saum series which formed in wind-blown (eolian) deposits in upland areas. These are silty loams that develop under a forest canopy and have a high fertility. The Laurelwood soil unit is represented on over 60 percent of the property and includes the forests located on the former agricultural lands. According to the National Resource Conservation Service Soil Survey, the Laurelwood series is characterized by very deep, well-drained soils, making them highly favorable for forestry and agricultural use.

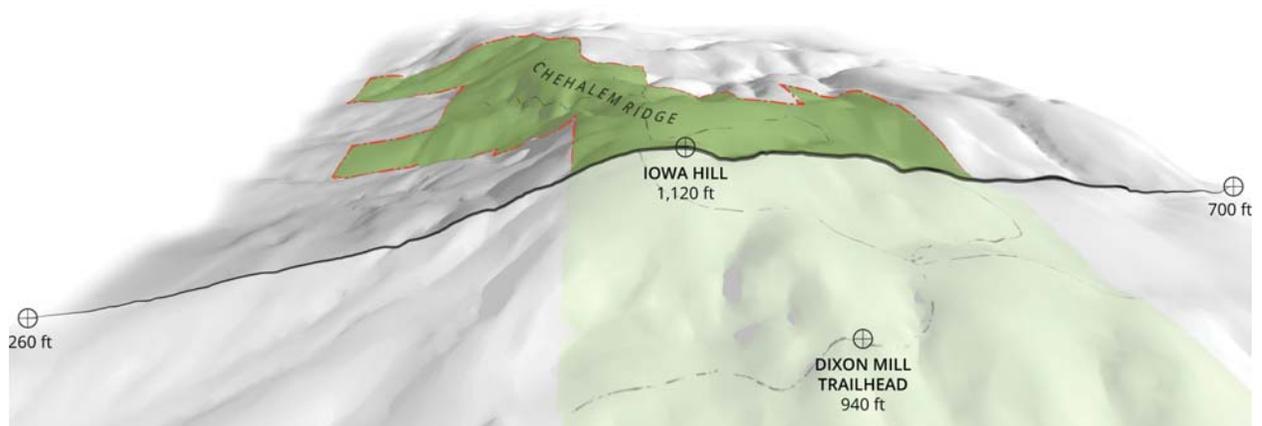


Figure 2.5: Site cross-section



Erosion from all of these soils is high in areas not protected by vegetation. The ridgetops of the Chehalem Mountains, particularly on the west slopes, have an unstable overburden of silt-clay soils. These soils are prone to slumping and sliding, and stream channels tend to define rapidly through the fine-grained material. A slide occurred along the southern boundary of the property in 1996 as the result of heavy rains. The areas most prone to slides and slumps appear to be at the junction of the two geologic units. (More information can be found in the geotechnical report developed for Metro, Preliminary Geotechnical Evaluation, Chehalem Ridge Property, Pacific Geotech LLC, July 2010).

Chehalem Ridge is an important source of clean water, acting as the headwaters to five perennial streams. To the west of the Chehalem Mountains is a narrow valley defined by the Tualatin River and its tributaries to the north. The watershed between these drainages is roughly south of Wapato Lake. On the west side of Chehalem Ridge, Cold Springs Creek and Harris Creek are the largest drainages. Several smaller unnamed creeks also drain the west side, including the creek that splits Metro’s Wapato View property. On the east side of Chehalem Ridge, Christensen and Davis Creeks are the primary drainages, meeting the Tualatin further east in its course to the Willamette River. See Figure 2.6 for stream locations and names. Chehalem also has several springs and seasonal seeps. Four springboxes found at the property edges supply water to nearby properties. To the north of the property Springhill Water Company delivers water to area residents.

(Please refer to the 2014 Site Conservation Plan for more detail.)

- CHEHALEM RIDGE NATURE PARK
- Water Areas & Wetlands
- Wildlife Habitat
- Water Areas, Wetlands, & Fish and Wildlife Habitat
- Historic and Cultural Resources
- Resource Overlap
- Mineral & Aggregate Overlay:**
- District A
- District B

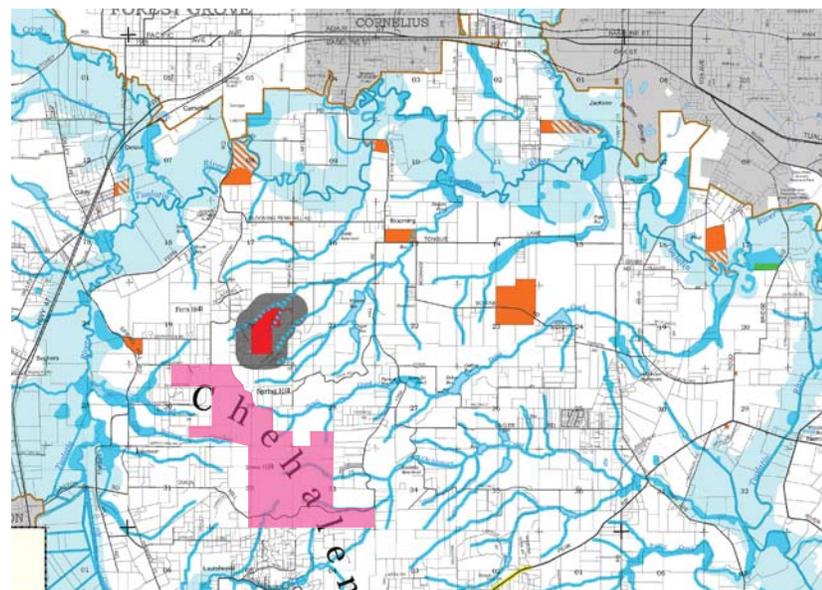


Figure 2.6: Washington County Rural/Natural Resource Plan (with park boundary shaded in pink)

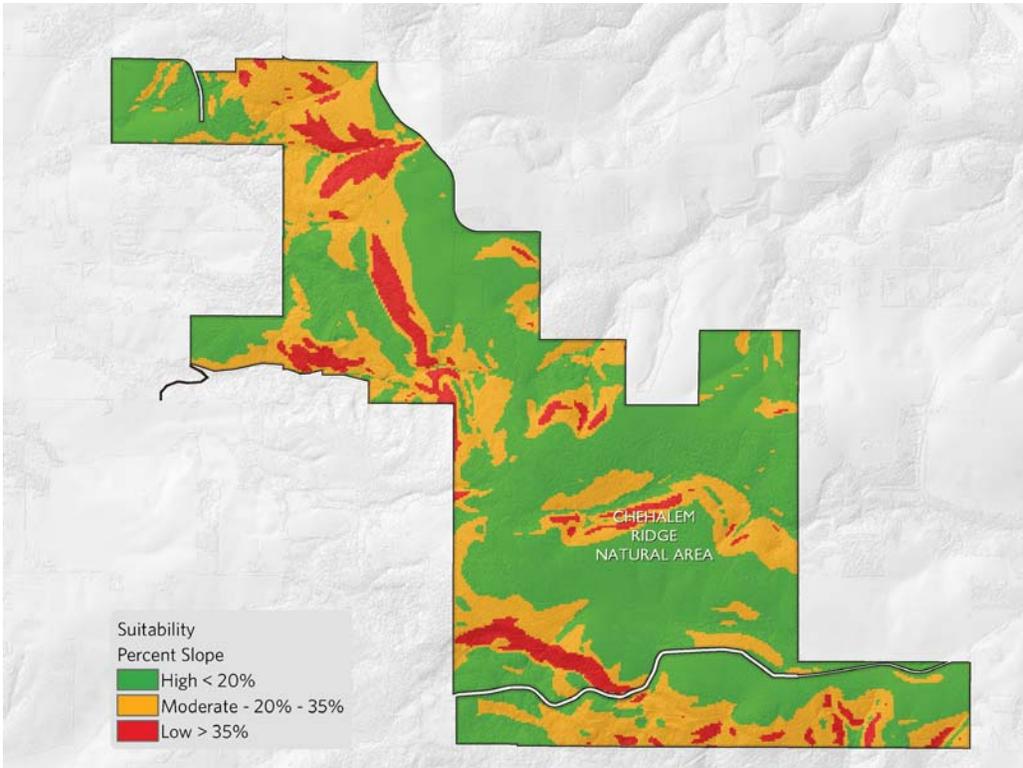


Figure 2.7: Site Slopes



Figure 2.8: Site Soils



Adjacent Land Uses

Chehalem Ridge is surrounded by rural residential homes and a range of agricultural land uses including pastures, crops, small tree farms and orchards. Major nurseries are located on either side of the park, including Fisher Farms to the west and Hochstein Nursery to the northeast. There are a growing number of vineyards in the vicinity, including Ardiri, A Blooming Hill, Plum Hill and Patton Valley vineyards (see Figure 2.2). A large quarry sits roughly one half mile to the northeast. Rural residential uses are inter-mixed with the agriculture land use, typically in five to ten-acre large lot developments.

Utilities

A full summary of available utilities was prepared by KPFF Engineers in a memorandum, dated July 8, 2016. The following are key excerpts:

Power

The site is not served directly by electrical utilities, other than PGE service to the Metro-owned house at the end of Southwest Burgarsky. Homes on the edge of the Park are also served by electrical lines, for example along Southwest Dixon Mill Road, which could theoretically be extended to new access points or trailheads into the park, if desired.

Water

There is no water purveyor with service lines into the park property. The Metro-owned house at the east end of Burgarsky Road is serviced by well water. The Washington County Water Master suggested the house could be served by the Joint Water Commission, but it has been confirmed that it is not. Based on records research, it is our understanding that the adjacent properties falling north of Southwest Dixon Mill Road are served by private wells. There is a private water system, LA Water Co-Op, with infrastructure to serve properties as far north as Southwest Dixon Mill Road and the Laurelwood neighborhood south of the future park, but their supply main ends in Southwest Dixon Mill Road near the future park boundary.

Sewer

There is no public sewer that serves the park property. The Metro owned house at the end of Burgarsky Road and the nearby developments are all on private septic systems.

Site Character and Special Features

The large scale of Chehalem Ridge Nature Park provides the opportunity for a rich array of visitor experiences. This informed the shaping and location of elements of the access master plan, including trail locations, destinations, interpretive opportunities and basic site improvements. In concert with the Site Conservation Plan, these places also inform the designation of park areas that should remain undisturbed and without formal site improvements. (see Figure 2.9: Existing Site Features)

Views

- Being a ridge, the site is unique in offering expansive views to both the east and the west.
- Views of Bald Peak from Iowa Hill and the southern edge of the property provide a visual link to the greater ridgeline and natural connection extending to the southeast.
- More intimate views of adjacent farmland from various points around the property act as wayfinding elements and reminders of the area's agricultural heritage.
- Views to the Tualatin Mountains and snow-capped volcanoes of the Cascade Range (Mt. Rainier, Mt. Adams, Mt. Hood and Mt. St. Helens) at several locations can provide potential future hiking destinations and overlooks with interpretive displays.
- The view west across the Tualatin Valley to the Coast Range from a prominent overlook, provides a visual link to the Wapato Lake National Wildlife Refuge lands in the valley below. Key landmarks in the Coast Range include Trask Mountain (3,424') to the south, Gobblers Knob (3,051') due west and South Saddle Mountain (3,464') to the northwest.



The Chehalem Ridge offers views to several mountains, including Mt. St. Helens to the north.



Metro's restoration work is recreating early seral habitat in areas that were previously too densely planted with fir trees.

Habitat

- Riparian corridors, including Christensen Creek and its tributaries, provide potential locations for interpretation amongst signs of wildlife, such as beaver dams, as well as natural systems regeneration.
- The oak-madrone woodland restoration area at end of Burgarsky is a unique habitat area within the property.
- Ongoing restoration work in different stages of progress, including thinning of fir plantations and oak release, offers a striking example to visitors of the benefits of such restoration. Volunteer restoration planting opportunities may provide a chance to contribute personally to site restoration.
- Patches of early seral habitat (low structured plant community) create opportunities for increased species diversity and bird watching.
- Metro's Wapato View parcel provides a potential habitat and possible trail connection to the southwest and the United States Fish and Wildlife Service Wapato Lake National Wildlife Refuge. Habitat restoration has begun in the oak woodlands and stream corridor on this parcel. While no near term access improvements are envisioned here, there should be opportunities to interpret the restoration for travelers on Southwest Dixon Mill Road.
- A habitat and possible trail connection to the Tualatin River is desired from the northwestern edge of the property.



The oak-madrone woodland is an impressive natural feature of the site.

Edges

- Agricultural patterns, including nurseries on the west and northeast edges of the property provide a stark contrast with the adjacent natural area as well as a visual connection to current land uses.
- The tree plantation provides a stark edge to the NE of the property at the end of Gnos Road. Thinning activities occurred in 2016 in this location.
- Owners of the large residential lots on the edge of the park have expressed both support and concerns about aspects of the proposed plan (see Section 4, page 49) and will continue to be involved in the land use approvals process.

Site Legacy

- Logging roads through dense mixed forest may provide potential routes for hiking, equestrian and biking trails, as well as emergency and maintenance access. Alternatively, interior roads may be fully or partially decommissioned to create larger, core habitat areas.
- Mature Oregon white oak trees provide beautiful landmarks and destinations as well as resources for wildlife.
- The legacy of former landowners can be seen in hand-made signs in the madrone restoration area and the old mill pond in the far southwestern corner of the park.



Chehalem Ridge Nature Park is frequently bordered by agricultural lands.



A reminder of the site's previous owners can be seen in the Oak-Madrone woodland area ("Iris Flats").

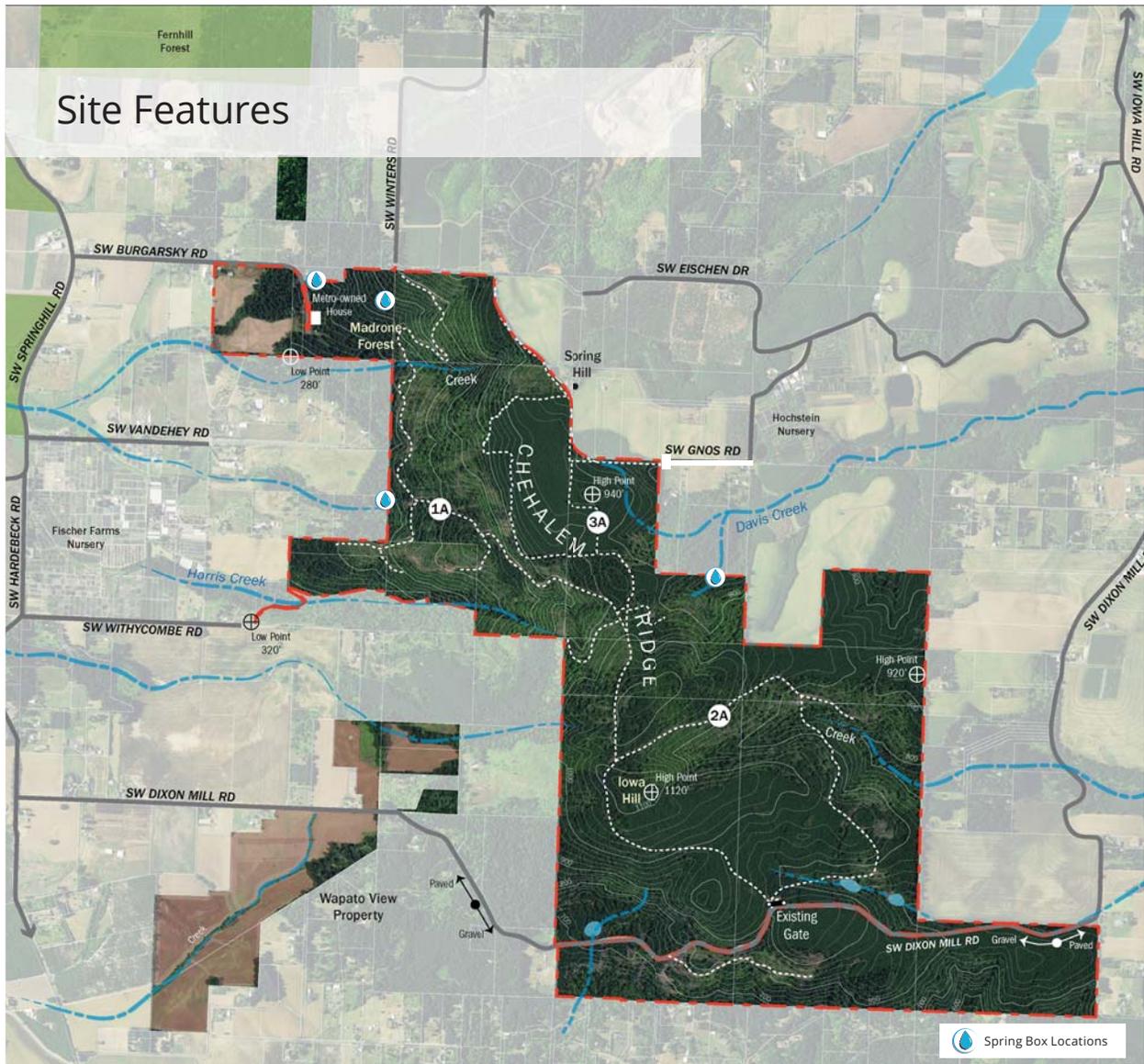


Figure 2.9: Existing Site Features



3. Needs Assessment and Park Opportunities

The plan for Chehalem Ridge Nature Park must consider how to meet regional recreational needs and satisfy a range of public preferences. This plan seeks to use the results of a thorough public consultation as clear direction on resolving opportunities and challenges in the development of site alternatives.

“Providing public access is a critical part of Metro’s work to protect, restore and celebrate the landscape. Spending time outdoors supports healthy, active lifestyles and provides opportunities for peace, quiet and renewal.”

2016 Parks and Nature System Plan

Potential Recreational Users

Community Profile

The Chehalem Ridge Nature Park falls within Census Tract 330 in Washington County (referred to here as the study area tract). At about 37,000 acres of land area, the study area tract’s population is 5,226, a population density of 94.7 people per square mile - markedly less dense than the closest cities of Cornelius, Forest Grove, Gaston, and Hillsboro, which have a combined population density of 4092.2 people per square mile.

Another distinct characteristic of the study area tract is its age composition. When compared to surrounding cities and census tracts, the study area tract has a significantly larger share of residents between the ages of 35 and 64 (45.5% as compared to 34.3% in Cornelius and 36.7% in Forest Grove, for example). About 30% of the population of the study area tract is between 50 and 66 years of age. Residents of the study area tract who are retired or approaching retirement may have different recreational needs and preferences than the younger, more diverse population found in the surrounding areas. Cornelius and Hillsboro have the youngest populations, with 30% and 27% under the age of 19.



Metro research determined the following profile highlights as they relate to public outreach. These suggest that the planning process and resulting improvements should be particularly attuned to the recreational interests of Latinos:

- A large percentage of residents from Latin America across Forest Grove, Cornelius and Hillsboro with up to 47% of residents in Cornelius speaking a language other than English at home, primarily Spanish.
- Forest Grove and Hillsboro both boast high educational attainment.
- Cornelius has a significant rate (47%) of people who speak a language other than English at home. About 93% of Cornelius's foreign-born residents are from Latin America.
- Hillsboro has a greater diversity of foreign-born residents than Cornelius, about half hailing from Latin America, a third from Asia and less than 10% each from Europe and Africa.
- Gaston presents the least diversity of language and countries of origin with predominantly Anglo English-speakers. Gaston also has the highest rates of poverty for those under the age of 19 and over the age of 65.



Finally, 2014 American Community Survey Census data show that the population of the study area tract has a median household income of \$64,896, slightly lower than that of Washington County overall, but higher than the nearby cities of Cornelius, Forest Grove, and Gaston. Among these nearby cities, the City of Hillsboro has the highest median household income at \$66,668 -- higher than both the study area tract and Washington County overall. The City of Forest Grove has the lowest median household income of \$48,365. This range of incomes in the surrounding area may also affect the type of recreation sought out by potential users of the future Chehalem Ridge Nature Park. It also highlights transportation needs as a potential barrier to accessing the future nature park.

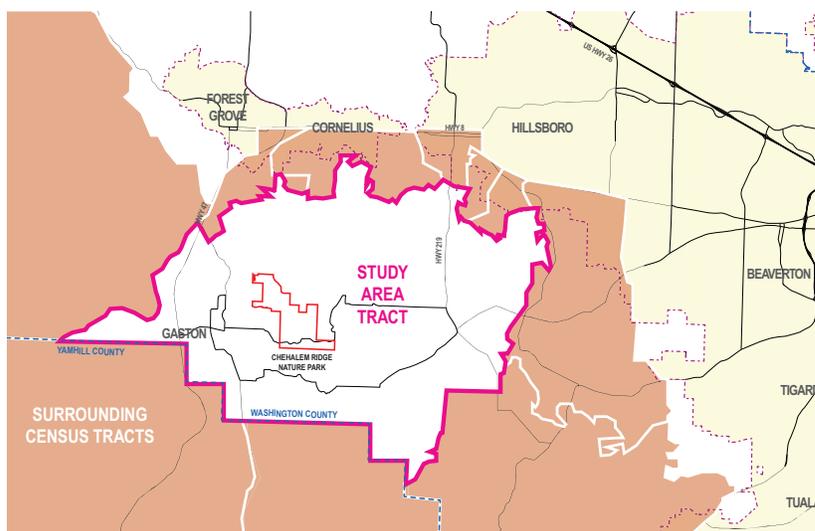


Figure 3.1: Study area Census Tract boundary

Activity and Needs Data

To design Chehalem Ridge Nature Park so as to maximize benefits to residents of the greater region, while still meeting the scope of Metro Parks and Nature's role in providing nature based recreation, the project team conducted an evaluation of regional demand for outdoor recreation opportunities. Activity demand was analyzed by comparing participant locations in relation to activity availability. In this way, scarcities were determined in activity-specific opportunities such as hiking and picnicking, as well as geographical scarcities, such as what is least available in proximity to Chehalem, with respect to participant levels nearby.

This analysis mapped the existing supply of outdoor recreation opportunities within 25 miles of the Metro region (inclusive) and activity participant densities in the Metro region. Intersecting this information allowed development of a series of maps and tables that show relative and absolute scarcity and abundance of outdoor recreation for Metro residents, identification of valuable uses and likely use levels for Chehalem.

Relative to other parts of the Metro region, the western side of Metro's service area has lower supplies of several kinds of outdoor recreation opportunities (including trails for hiking, mountain biking and horseback riding, as well as general access to land for picnicking and wildlife watching). However, accounting for population densities within the Metro region often reveals more complex patterns of availability. Figure 3.2 provides an example specific to hiking, with similar maps for each activity type available in the report.

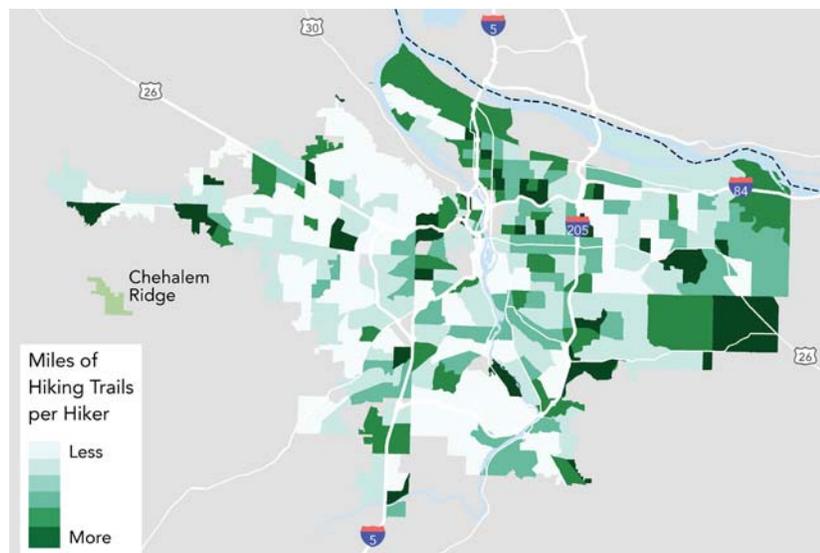


Figure 3.2. Supply of Hiking/Walking Trails in the Metro Region, Relative to Demand

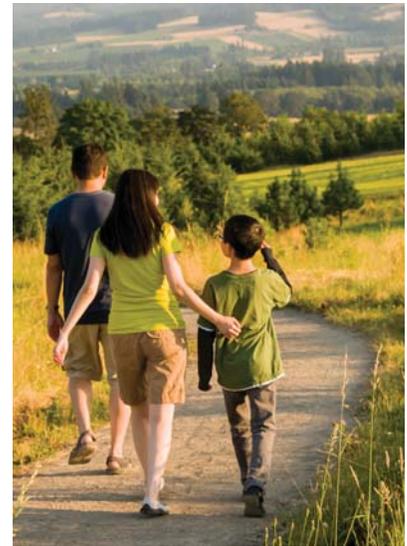
Each park and natural area in the Metro region represents a unique combination of features in terms of size, accessibility, proximity to water bodies, development levels, viewsheds, suitability for specific recreation activities and natural vegetation. Chehalem Ridge is comparable in many of these respects to the region's most popular and well-known parks and natural areas, particularly in terms of its size and elevation.

Metro is unique in its mission, its role as a park provider and the types of park experiences it provides. With a focus on access to nature in tandem with the protection of habitat and water quality, it is challenging to find parks and natural areas to serve as benchmarks for comparison. That being said, if each of the following trail uses were deemed appropriate for the site, then based on development levels observed at similar parks, Chehalem could have:

- 9.9 miles of general purpose hiking trails;
- 5.9 miles of trail open to mountain biking;
- 3.8 miles of trail open to horseback riding; or
- 9.9 miles of multi-use trails.

It is worth noting that based on Metro's role as a conservation-oriented organization and the scale of its recent nature park planning efforts, lengths of trails for Chehalem are likely to tend towards the low end of the benchmark ranges.

Approximately 360 thousand people live within a 30-minute drive of the Park, and over 2 million live within one hour's drive. Overall, Chehalem shows the potential for providing valuable outdoor recreation opportunities for the part of the Metro region currently experiencing the most acute scarcities in terms of supply and opportunities close to home. Expected growth rates in the western Metro region increase the demand and value that Chehalem can provide. Development at Chehalem Ridge will be carried out within the comprehensive mission to protect wildlife habitat and water quality while providing meaningful access to nature.



Walking, hiking, equestrian and mountain biking uses will need to be balanced.

“More open trails in the woods surrounded all around by the beauty of nature. With the trees and the squirrel... Having a nice place to picnic in the opened field. Friends and family coming together, to snap a pic of the deer...”

*Abril, age 15
(Tour participant)*

Community Engagement and Needs

Metro’s park planners engaged with community members in a variety of ways in order to capture a diverse range of input. Staff provided five open house style events in English and two in Spanish. Well over one hundred community members took part in a series of site tours. Staff also hosted tables at community events, including festivals and farmers markets, in order to build awareness of Metro, its system of parks and nature, and the planning process for Chehalem Ridge. Lastly, three on-line surveys received over five thousand responses from community members across the region.

Survey data categorized by race and language provided insight to assist with decision-making and ensuring that the park addresses the needs of a wider section of the community. With Opt In panel respondents, participants are typically higher paid, white, and residents of Multnomah County. Approaching analysis as we have equalizes the weight of responses through percentages rather than a count of all responses (popularity) to ensure that we are able to hear from the diverse perspectives of the communities we serve and continue to strive to serve in meaningful ways.

This process revealed a lot about people’s preferences for park activities and development. Similarities across groups included a strong desire for hiking and walking opportunities in nature (Figure 3.3). Clean restrooms are also a high priority for all people when visiting parks. Activities for families, youth and those living with disabilities were reported as being important to both people of color and Spanish speakers.

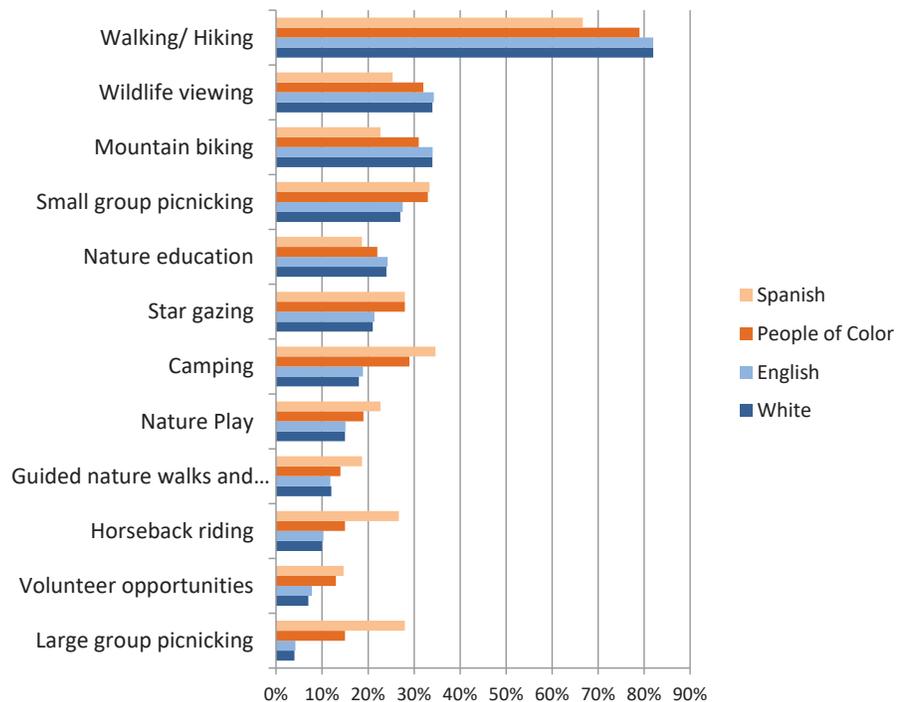


Figure 3.3. Community Activity Preferences

Restrooms, wayfinding and information rank amongst the highest priorities for amenities at Chehalem across all groups. Spanish speakers were found to place almost as much value on items including picnic tables, play areas and grills for cooking, as the previously mentioned amenities.

People of color and Spanish speakers are more likely to experience barriers to accessing parks and nature. These include not knowing where to go or having concerns about being safe in nature. A lack of transportation was also cited as an issue. In terms of travel to parks and natural areas, while most people expressed interest in a longer, scenic route, Spanish speakers reported a preference for the shortest most direct route to the new park (Figure 3.6). This aligns with transportation being reported as a barrier.

While all community members support the single passenger vehicle as a way to reach the park, multi-modal opportunities are also important. Strong support for biking, walking and shuttle service was found among all groups, but was stronger for those who completed the survey in Spanish. Over 70% of participants who attended a community event for Spanish speakers supported a shuttle service as an option for getting to the park compared with 37% support from the general population. This is not surprising given that Spanish speakers reported experiencing greater transportation barriers than English speakers when trying to access nature.

Regarding trail preferences, all groups reported having a preference for loop trails over linear trail opportunities. Some community members expressed concerns about shared use trails, however people prefer more miles of shared use trails over limited lengths of single use trails, by a margin of 2:1 (Figure 3.4). Community members generally show strong support for each of the different types of trail opportunities being planned at Chehalem.

Conversations with neighbors brought up questions about increased traffic on area roadways. Locating trails away from private property boundaries or providing fencing to discourage trespassing were also requested.

For additional information on community input received, see Appendix C.

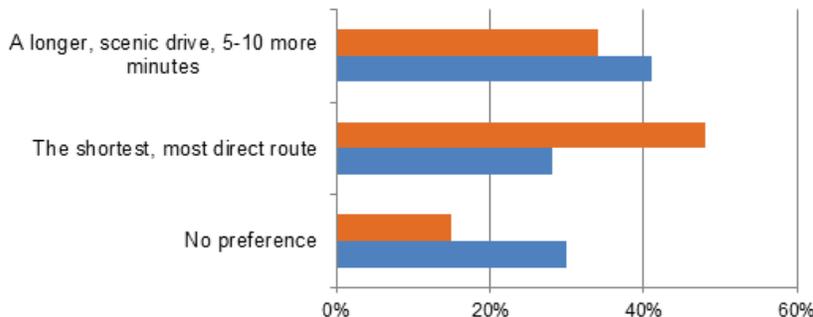


Figure 3.6: Access Preferences

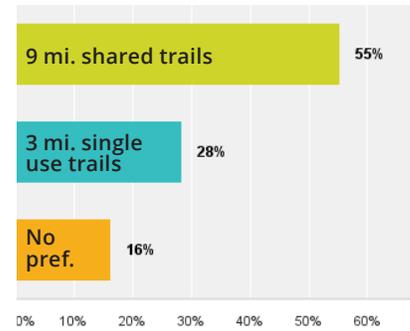


Figure 3.4: Shared Use Trail Preferences

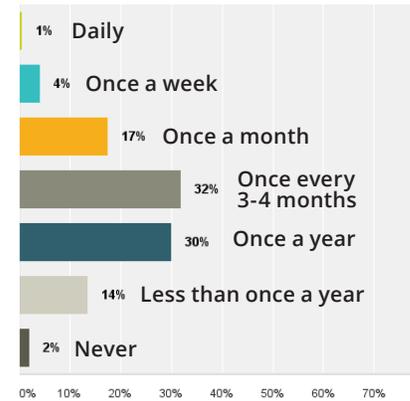


Figure 3.5: Potential Visitation Levels (Q: How often are you likely to visit the Chehalem Ridge Nature Park after it opens?)

Potential Activities

The following list of activities is derived from one generated by Metro’s project team in an initial brainstorm on January 22, 2016 and then refined based on community input received at the Community Preview event held on February 24th, 2016. The list was also informed by early conversations with community members and project stakeholders. The evaluation criteria, based largely on Metro’s Core Mission, suggest that the most compatible future site activities at Chehalem will feature minimal site disturbance.

Suggested Activities	Evaluation Criteria				
	Core Mission			Operations Capacity	Feasibility/ Costs
	Habitat Protection	Water Quality Protection	Public Access to Nature		
Nature Viewing	Meets Criteria	Meets Criteria	Meets Criteria	Meets Criteria	Meets Criteria
Volunteering	Meets Criteria	Meets Criteria	Meets Criteria	Meets Criteria	Meets Criteria
Hiking/Walking	Neutral	Neutral	Meets Criteria	Meets Criteria	Meets Criteria
Education and Interpretation	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
View Opportunities	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
Nature Play	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
Picnicking	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
Horseback Riding	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
Off-Road Bicycling	Neutral	Neutral	Meets Criteria	Meets Criteria	Neutral
Star Gazing	Neutral	Neutral	Meets Criteria	Does Not Meet Criteria	Meets Criteria
Camping	Does Not Meet Criteria	Does Not Meet Criteria	Neutral	Does Not Meet Criteria	Does Not Meet Criteria
Environmental Education Center	Does Not Meet Criteria	Does Not Meet Criteria	Neutral	Does Not Meet Criteria	Does Not Meet Criteria
Lookout Tower	Does Not Meet Criteria	Does Not Meet Criteria	Neutral	Does Not Meet Criteria	Does Not Meet Criteria

Activities Not Compatible with Metro's Mission and Role in the Region

Soccer	Does Not Meet Criteria	Neutral			
Hang Gliding	Does Not Meet Criteria	Does Not Meet Criteria	Neutral	Does Not Meet Criteria	Neutral
Zip line	Does Not Meet Criteria	Does Not Meet Criteria	Neutral	Does Not Meet Criteria	Neutral
Dog Walking *	Does Not Meet Criteria				
Hunting*	Does Not Meet Criteria				

* Prohibited per Metro Code

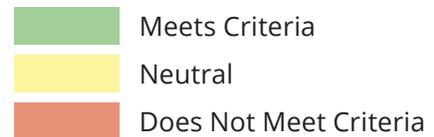


Figure 3.7. Evaluation of Potential Activities at Chehalem Ridge

Potential Visitor Experiences and Opportunities

The following are functional, natural and aesthetic considerations that can guide future site improvements at Chehalem Ridge Nature Park.

Programming

Due to access challenges, zoning limitations or site constraints, Chehalem Ridge may be best suited for a limited level of development, with plenty of opportunities for solitude and personal reflection. Some programmed uses could include:

- Naturalist-led tours and environmental education
- Guided horse and bike tours
- Restoration and invasive species removal work parties and school group visits
- Ability of park to accommodate smaller events (such as Scouting meets, orienteering, bird counts, bike races, trail runs or star parties) will depend on Metro policies and parking capacity at the site
- Impacts to neighbors and habitat would be likely considerations.

Design Elements

- Low impact to site; minimal road building and grading
- Sustainable design is an important consideration for a remote site that is undergoing such large scale restoration
- Visually unobtrusive within site and from off site (including the valley below and from the perspective of the Park's neighbors)
- Incorporating design cues from Tualatin Kalapuya culture, migrant laborers or regional Euro-American agricultural history
- Potential for site-specific elements such as bike racks, seating or tables, instead of standard 'off-the shelf' fixtures
- Invite user groups to consult on trail design and interpretive educational opportunities
- If any structures are built, seek high level of sustainable design

Materials and Textures

- Colors derived from landscape
- Use of reclaimed wood and stone from site
- Use of sustainably harvested and sourced materials, including consideration for local sources
- Inspiration from texture of tree bark, basalt, site and context topography, beaver dam, birds' nests and wildlife tracks



Several guided tours of the Chehalem Ridge Nature Park were conducted over the course of the planning process.



Example of creek overlook at Orenco Woods Nature Park.

“Getting out in nature is a healing experience, particularly for those who can’t afford other activities.

Visitar la naturaleza exterior es una experiencia sanadora, particularmente para aquellos que no pueden costear otras actividades.”

Community Comment

With the preceding site and context analysis, the planning team considered the following opportunities and challenges in the preparation of draft site alternative plans:

Opportunities

- Large contiguous property
- Views of five Cascade volcanoes
- Habitat restoration demonstration and volunteerism for the public
- Environmental education
- Potential habitat and public access connections to a larger regional system of open spaces and natural areas
- Existing logging roads potentially suitable for trail use
- Flat, open site on south side of Southwest Burgarsky Road (former home and barn site)
- Proximity to new outdoor recreation opportunities for underserved communities in this part of region

Challenges

- Access limitations, including direct access to the site from winding, unimproved roads which connect the regional communities
- Neighbor concerns with additional visitation to the site
- Some restoration activities and sensitive habitat may be incompatible with public access
- Steep topography, especially on the west side, poses trail construction and facility design challenges
- Lack of utilities
- Carrying capacity of site given demand for different uses, balanced with habitat conservation goals



Example of art piece at Scouters Mountain.





4. Site Alternatives

Three alternative plans were explored for the Chehalem Ridge Nature Park, based on an assessment of site conditions, regional recreational opportunities, conservation goals and community needs. These alternatives were reviewed in a thorough public and stakeholder process to arrive at a preferred alternative or recommended plan.

“This is big news for those of us living in the area. (I live in Forest Grove and make the long drive to Cooper Mountain to hike with my family regularly.)”

Community Comment

Alternatives Development

There were several consistent elements between the three options prepared for Chehalem Ridge. These are described in the following pages. None of the options proposed access south of Southwest Dixon Mill Road. This area is considered to be of value for habitat, but due to its narrow width, slope stability issues, and lack of public roads to the south, it is not as appropriate for public trail access at this point. In the future, trail connections to the south beyond existing Metro boundaries could be added, but these are not being considered within the vision of this access master plan.

Although Metro owns several parcels in the vicinity of the site, such as the Wapato View property southwest of Chehalem Ridge, these are not contiguous to the site, and the current focus for these parcels is habitat restoration. Public access was not considered or proposed. In the future, the concept of additional trails that connect Chehalem with other Metro natural areas such as Fernhill Forest, the Wapato Lake National Wildlife Refuge or proposed regional trails such as the Yamhelas Westsider Trail may be considered.

In each alternative, a workshop and maintenance yard was proposed at the east end of Southwest Burgarsky Road, where a residence owned by Metro is currently situated. This facility of approximately ½ acre was considered as a workshop and other operational structures, a maintenance yard and a potential space for staff desk space. Programming for this has not begun but this facility is now being considered for the primary trailhead at Southwest Dixon Mill Road due to power and water being proposed at the Dixon Mill Trailhead and the desire of operations staff to be near the bulk of park activities.

Another consistent element in each alternative was the decision not to provide access from several public roads that approach the Chehalem Ridge. Southwest Vandehey Road stops short of the site boundary and Southwest Withycombe Road does not provide easy or safe access to the site at this time. Southwest Gnos Road provides direct access to the site but has shared private ownership and is a winding roadway shared with an active nursery operation. Southwest Eischen Road branches from Southwest Gnos Road but is not a fully improved right-of-way.

Alternative 1: Dixon Mill Trailhead

Alternative 1 concentrated access improvements in the southern half of the site. Habitat protection and enhancement would be focused in the northern part of Chehalem Ridge, although such activities would occur throughout the park. A trailhead was proposed off Southwest Dixon Mill Road that would accommodate passenger vehicle parking and include a bus drop-off for large groups and students. An equestrian trailhead and parking lot was also proposed in this alternative. A multi-purpose shelter for use by groups was proposed, as were restrooms and a picnic area. In the vicinity of this trailhead, nature play facilities were proposed, either in one concentrated location or dispersed along a trail. From this trailhead, a natural surface, multi-use trail (hikers, cyclists and equestrians) would link several site features, including Christensen Creek and several viewpoints to the east, north and west. Maintenance and emergency access would be provided to the site from the north at Southwest Winters Road and from the east at Southwest Gnos Road, using existing former logging roads to penetrate the site and link to the multi-use trail system and the maintenance facility on Southwest Burgarsky Road.

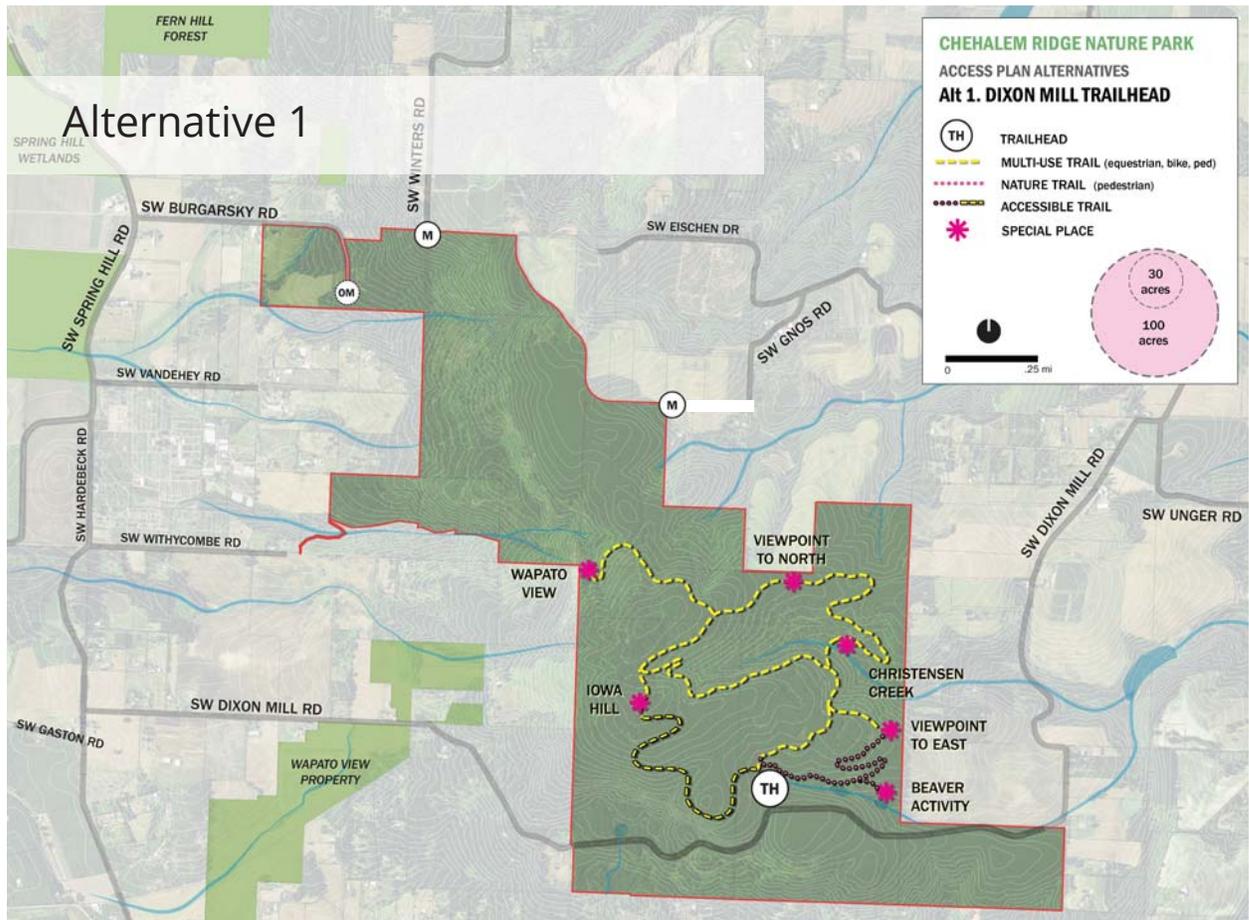


Figure 4.1: Plan Alternative #1

Alternative 2: Winters/Burgarsky Trailhead

This alternative concentrated access in the northern half of the site. Habitat protection and enhancement would be focused in the south half, although such activities would occur throughout the park. A primary trailhead was proposed on Southwest Burgarsky Road with parking for passenger vehicles and an adjacent equestrian trailhead and trailer parking lot. This trailhead would include a multi-purpose shelter, restrooms and picnic facilities. A natural surface, multi-use trail would begin from here and loop through the north half of Chehalem, potentially re-using an existing former logging road on the west edge of the park. This trail would climb uphill to a new viewpoint to the west and join a ridgeline trail, with a spur south to Iowa Hill. A nature trail loop was proposed east of this spur to provide a more remote experience and access to Christensen Creek and viewpoints north. This ridgeline trail would also connect to the south end of Southwest Winters Road, which would not be improved with parking but would provide access for neighbors of the Park on foot, bike, or on horse. Maintenance and emergency access would be provided to the site from the east at Southwest Gnos Road, using former logging roads to penetrate the site and link to the multi-use trail system.

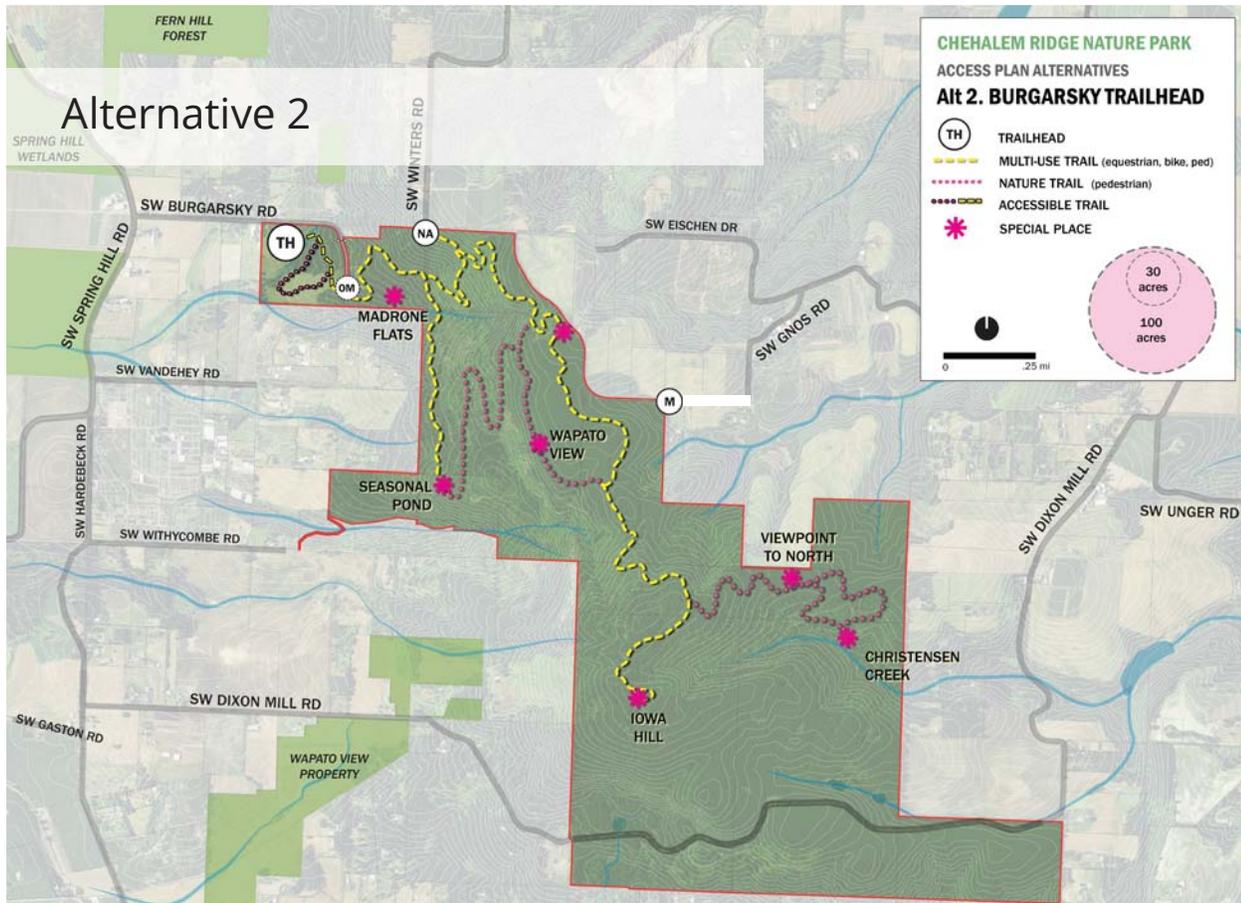


Figure 4.2: Plan Alternative #2

Alternative 3: Ridgeline Trail

The third alternative proposed public access from the north and south, with a multi-use trail extending the length of the park, roughly following Chehalem Ridge itself, honoring the name of the park. Habitat protection and enhancement would be focused on the western slopes of the site, although such restoration activities would occur throughout the park. A primary trailhead was proposed off Southwest Dixon Mill Road. This trailhead would accommodate passenger vehicles, and include a bus drop-off for groups and students. An equestrian trailhead and parking lot was also proposed in this alternative as well as a multi-purpose shelter for use by groups, restrooms and a picnic area. In the vicinity of this trailhead, nature play facilities were proposed, either in one concentrated location or dispersed along a trail.

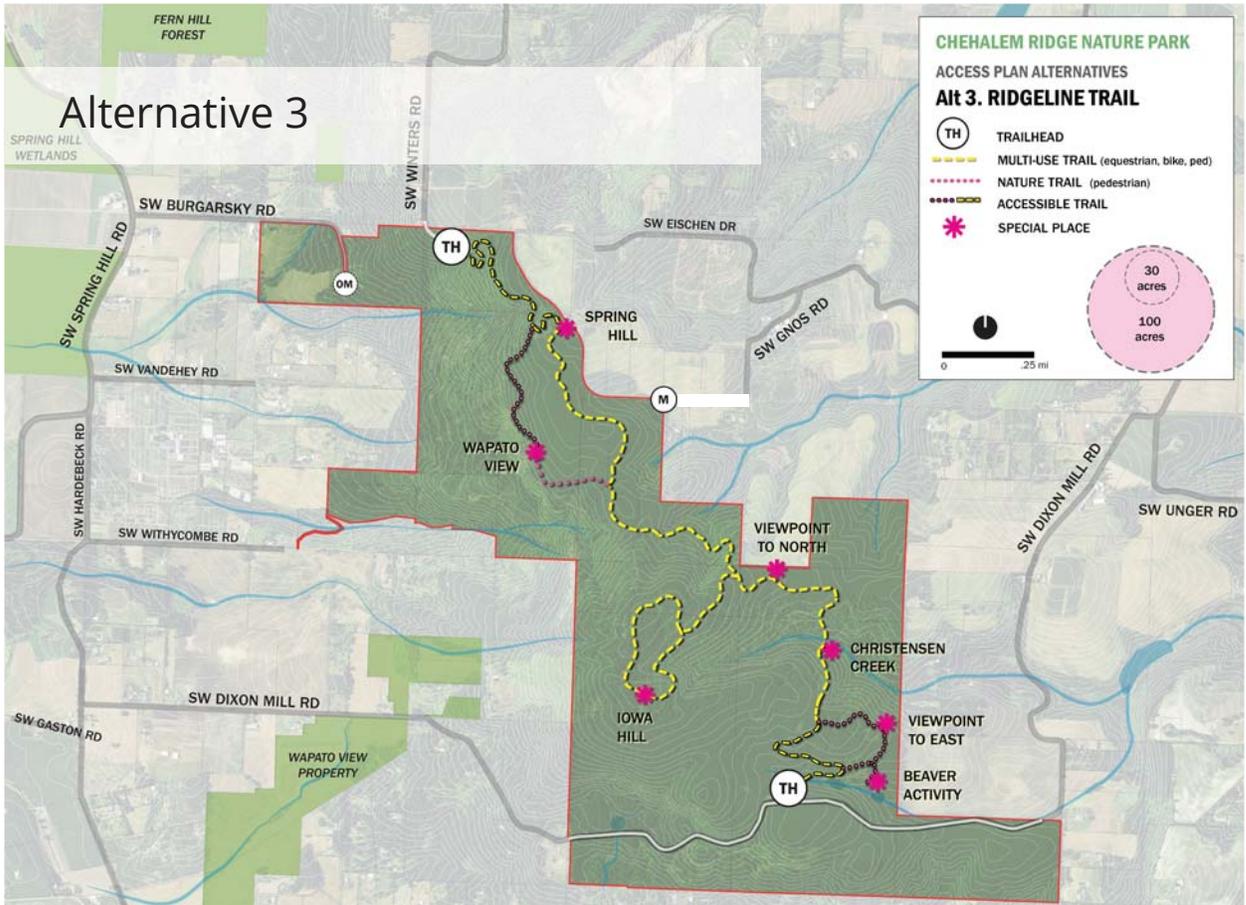


Figure 4.3: Plan Alternative #3

At the north end of the park a secondary trailhead could take two forms. As Southwest Winters nears the Chehalem Ridge, it becomes a narrow gravel road that appears to be more of a residential driveway (although it is public right-of-way.) In one option, this roadway could be extended into the park, with parallel parking spaces on the uphill side, similar to many simple roadside parking arrangements at US Forest Service trailheads in Oregon. This option proposed a vehicular turnaround and vault toilet at the end of the gated access road. Another option proposed that a new road be built from the south end of Southwest Winters Road along the northern boundary of the Park, within an existing unimproved road right-of-way. This road would be a steep climb and involve the expense of permitting and building an entirely new road (versus using the roadbed of a former logging road in the first option), although it would access a flatter area in the northeast part of Chehalem, allowing for passenger vehicle parking and a restroom.

Alternative Evaluation

Public access options were evaluated to inform the overall alternative selection and refinement. Trailheads were evaluated against conservation goals, desired visitor experience and technical feasibility. This assessment found Southwest Dixon Mill Road to be the most favorable option for public access at the time of this writing.

Recommended Alternative Selection

The three Alternatives were presented to the Stakeholder Advisory Committee (SAC) and Metro’s technical team and leadership, followed by a community event in Forest Grove, the third of the project. At the community event, members of the public were asked to identify the strengths and weaknesses of each alternative. The goal of the exercise was to identify the best aspects of each alternative while also acknowledging aspects in need of improvement. The following points were expressed by participants:

- a preference for concepts that maximize the protection of habitat areas
- a preference for multiple access points to the park
- a northern trailhead would provide closer access to future visitors living in the urban areas including those for whom transportation is a barrier
- a desire for more trails, including existing roads as potential access before other site improvements are complete
- some concerns about the details of multi-use trail design and potential conflicts between user groups
- neighbor concerns about the possible use of local roadways for public access

Additional public input is summarized in Appendix C.

“As a neighbor your plan is all that I was hoping for. Thank you!”

Dixon Mill neighbor





5. Recommendations + Site Master Plan

The recommended plan reflects the input of a varied group of stakeholders and interested community members. The plan proposes an appropriate balance of habitat protection and public access, while allowing visitors to experience much of the natural beauty of Chehalem Ridge in many safe, educational and interesting ways.

*“We are Oregonians.
We are only visitors
here and for this
reason we are going
to protect these
lands.”*

*Somos Oregonianos.
Solo somos visitantes
y por eso vamos
a proteger la
naturaleza.”*

*Community Event
Participant*

Based on public, stakeholder and Metro staff and leadership input and technical team refinements, the following elements were selected to be presented as the Recommended Plan:

- The ridgeline trail from Alternative 3 is considered to be a preferred way to experience the site, with a multi-use trail along most of the park’s namesake ridge, providing a link to the multiple experiences the site has to offer and maximizing the opportunities for views in several directions. This trail alignment also provides a way to experience more of the site, with potential to traverse the length of the site and provide a longer ‘out and back’ trail experience.
- Habitat protection and enhancement is deemed to be best in Alternative 3, focused in large, contiguous blocks (ideally over 250 acres) on the western slopes of the site, although resource conservation will occur throughout the park.
- Habitat connectivity will be facilitated to the north, west, south, and along riparian corridors flowing east and west from the ridge.
- A trailhead will be established off Southwest Dixon Mill Road, which is determined to be the most feasible access location and is situated on an existing County Collector roadway which would likely not require widening or resurfacing to accommodate future park user traffic.
- A secondary trailhead is also desired in the northern portion of the site as a long term improvement to facilitate access from the urban areas and provide efficient access for maintenance and emergency response needs.

All three alternatives provided feasible operations and maintenance options and emergency vehicle access routes. The Southwest Dixon Mill Road trailhead was identified as a preferred location for a maintenance facility in support of efficient operations.

Based on the cost to implement the entire community vision and the limited available funding, the Access Plan will be implemented in phases beginning with the trailhead at the south and a set of trail loop options, including trails with a firm and stable surface and grades, most with less than 5% slopes.

The Recommended Plan (see Figure 5.1: Overall Plan, Figure 5.2: North Enlargement Plan and Figure 5.3: South Enlargement Plan) is based on the elements above and a refined set of trail alignments.

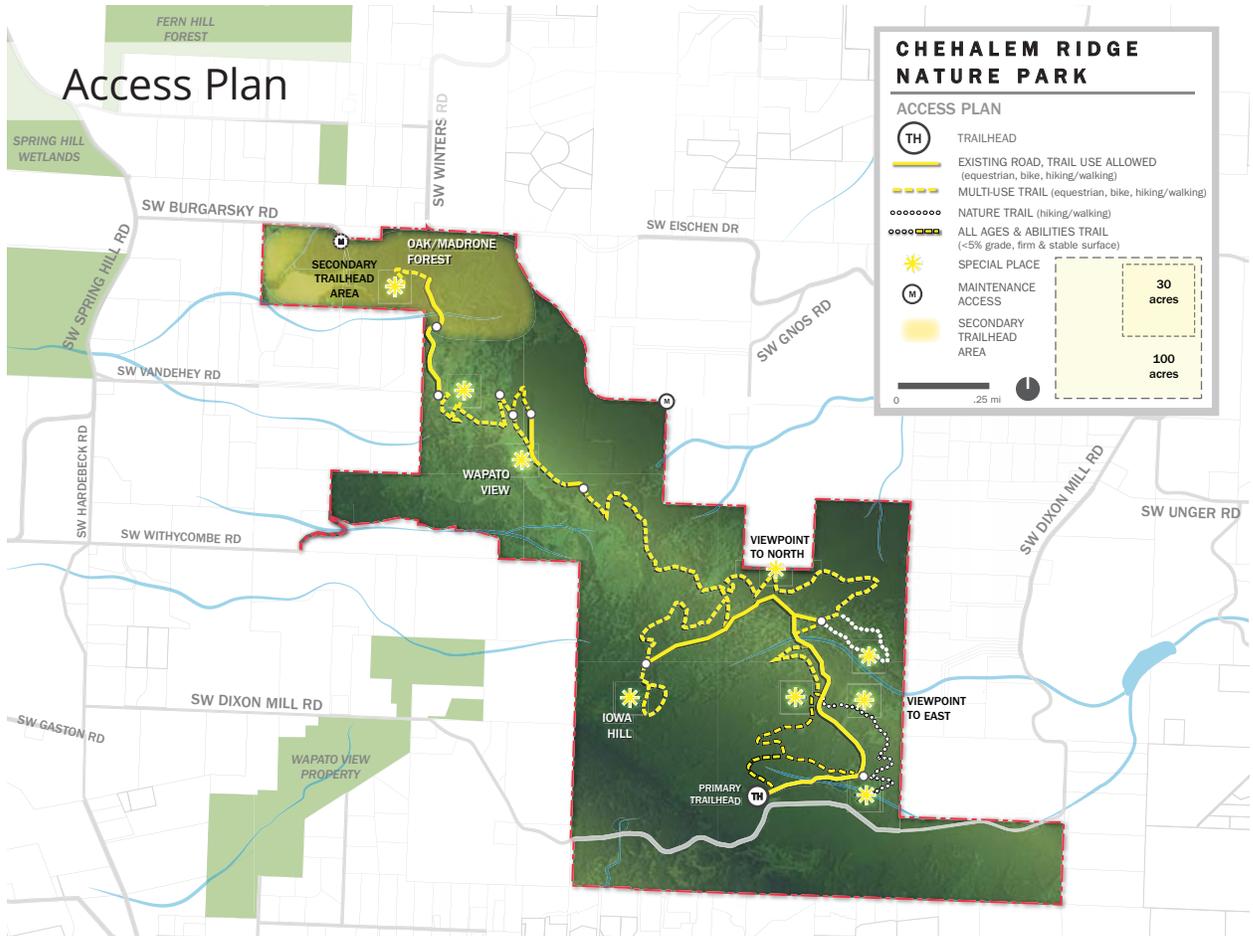


Figure 5.1: Chehalem Ridge Nature Park Access Master Plan

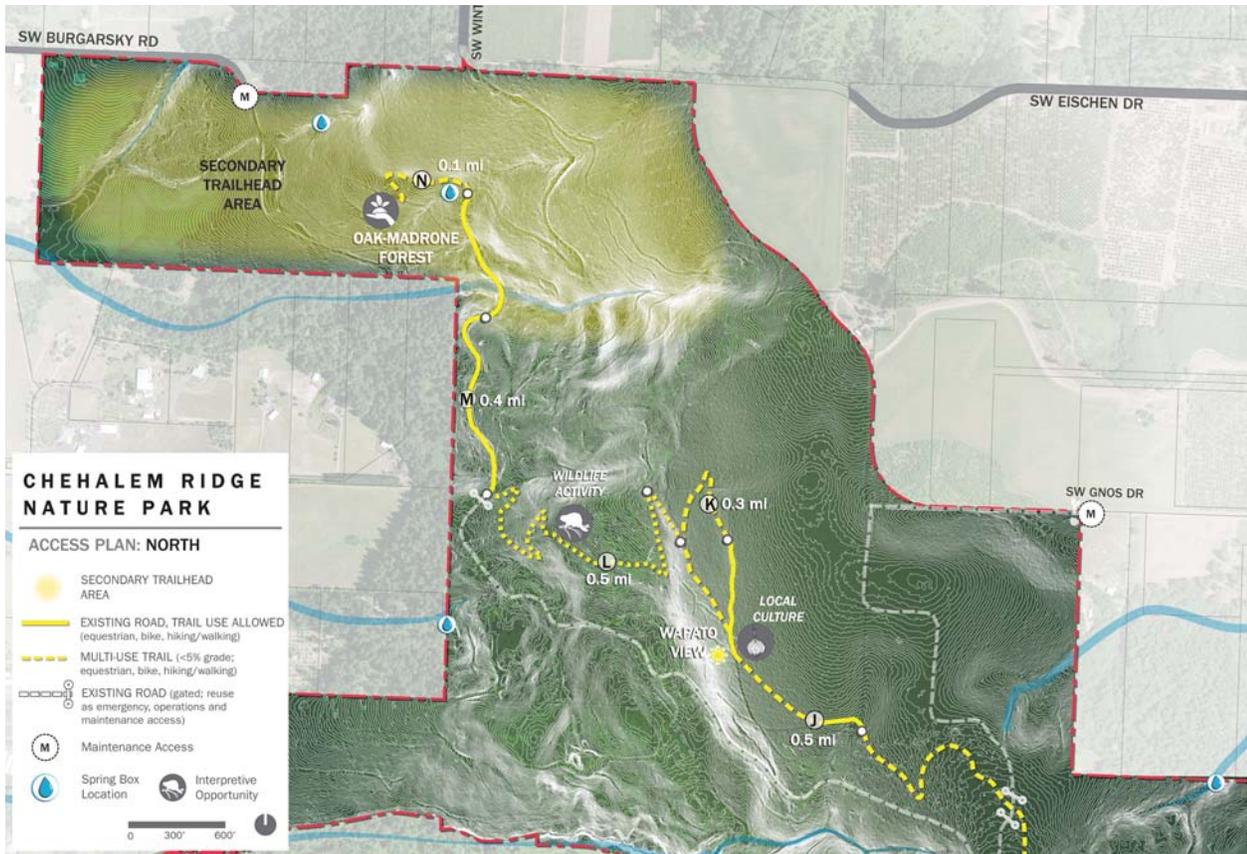


Figure 5.2: Chehalem Ridge Nature Park Access Plan. North Detail

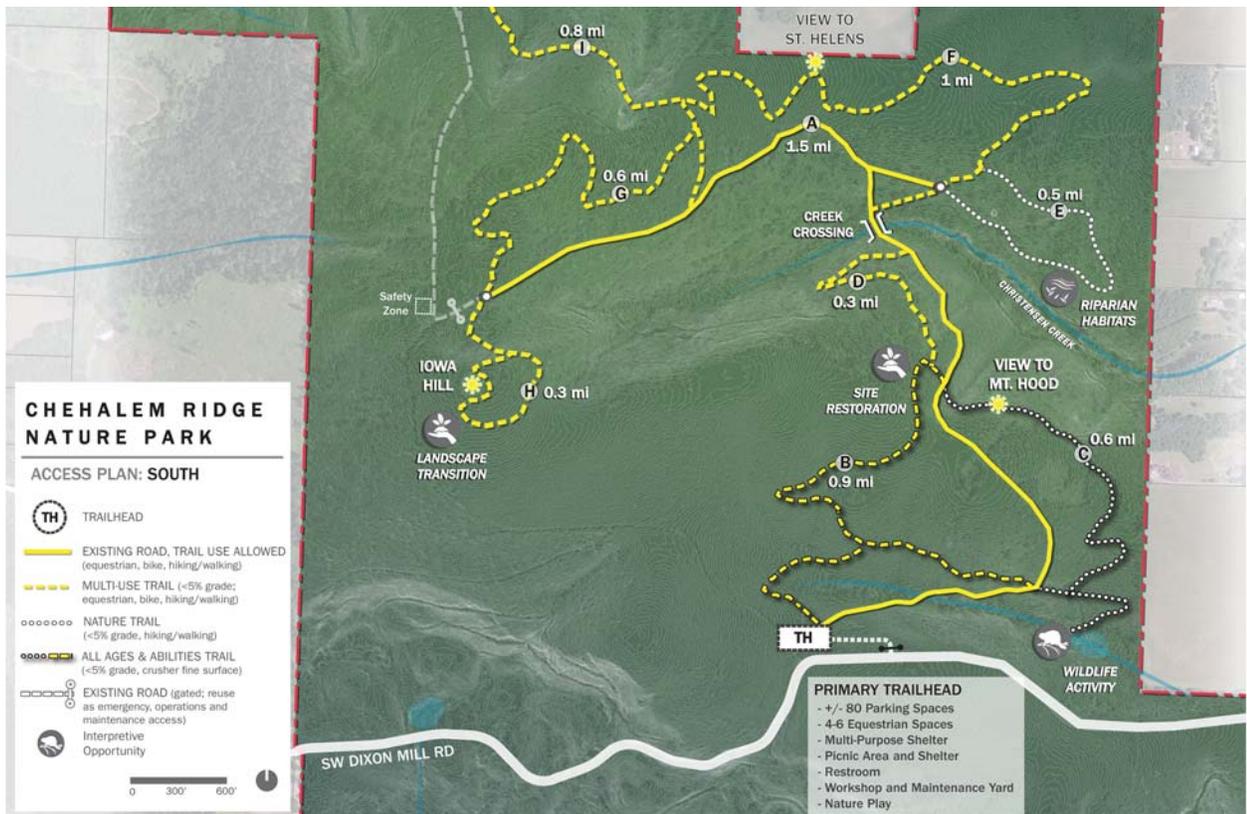


Figure 5.3: Chehalem Ridge Nature Park Access Plan. South Detail

Primary Trailhead

The primary trailhead will be located off of Southwest Dixon Mill Road, a County Collector, and will include a short gated access drive into the site, roughly 500' east from the current gate on Southwest Dixon Mill. The precise distance would be determined in a future design process that includes negotiation with Washington County staff. This trailhead (see Figure 5.4) will accommodate approximately 70 - 80 cars and include a bus drop-off for groups and students. An equestrian trailhead with room for up to six trailers is proposed adjacent to the vehicular parking.

An entry plaza with an information kiosk and bike racks will welcome users at the north end of the parking lot. A multi-purpose shelter (approximately 1,800 square feet) for general use by groups (up to 50 people) is proposed at the trailhead, as are restrooms and a picnic area with grills, which may include one additional, smaller (600 square feet) shelter. In the vicinity of this trailhead, nature play facilities will occur, either in one concentrated location or dispersed along a trail. Given that the bulk of visitor improvements are concentrated at the south end of the park, a small workshop and fenced yard will facilitate operations and maintenance activities. The existing driveway will be closed to public use but retained for maintenance staff access.



Examples of regional nature play areas. Nature Play uses "...a blend of materials and experiences to create purposely complex interplays of natural and environmental objects."

Oregon Natural Play Initiative

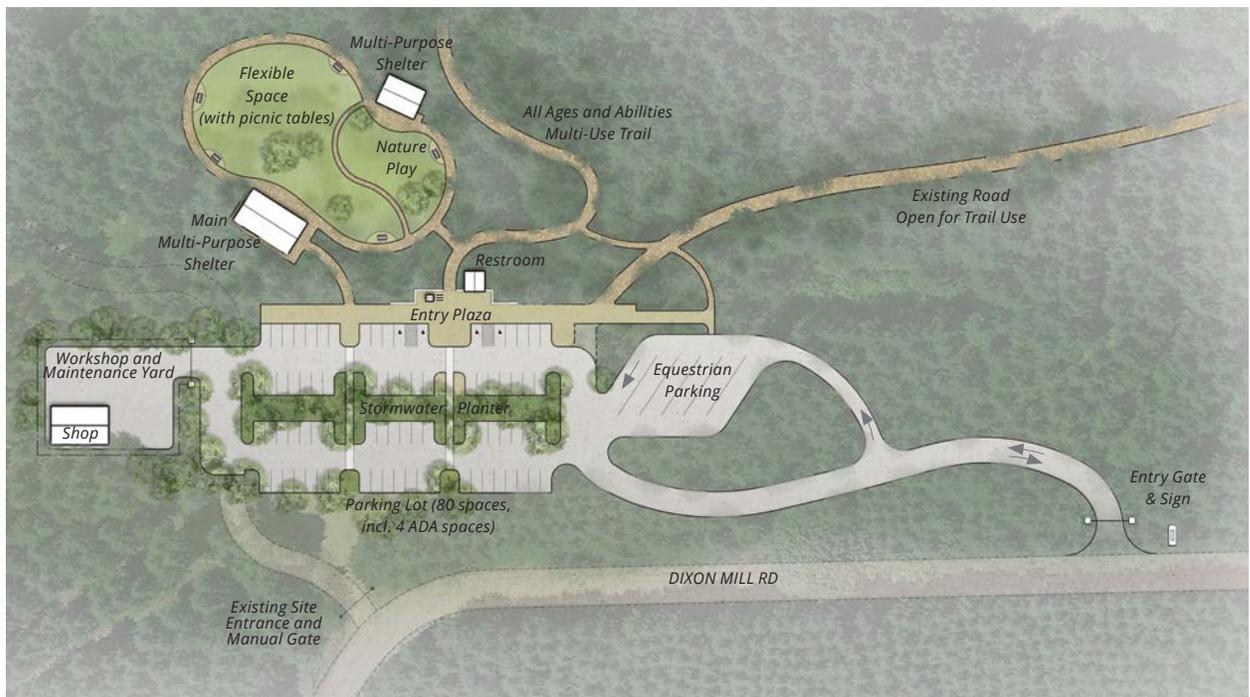


Figure 5.4: Primary Trailhead



Example of soft-surface trail with shoulder area.

Trails

There are two primary new trail types proposed for Chehalem Ridge: multi-use soft-surface trails and nature trails for walkers and hikers only. Both of these can be surfaced with compacted fine gravel to improve access for all users, but for much of the trail lengths, the paths will be mineral soils or dirt. On the Recommended Plan, most trails are shown at a 5% grade or less, with a short stretch of trail at up to 10% grade (Trail L) that is needed to traverse steep slopes in the northern half of the site with minimized habitat impacts. A third trail type is comprised of repurposed existing site roadways. The following are additional considerations and Best Management Practices for all trails designed and constructed at Chehalem:

- A 72" width is acceptable for multi-use trails but further from the trailheads, this width could be reduced to 36."
- Full bench construction is preferred to a partial bench for stability of trail, particularly under equestrian use.
- In order to shed stormwater locally and avoid erosion issues, trails should be outsloped as well as designed with frequent grade reversals (every 30-50').
- An ideal trail system would separate mountain bikes when they are traveling downhill, but there are likely not enough trail miles to separate users at Chehalem Ridge.
- A loop is desirable for horses at trail termini or turn around point. Horses will perceive this as a continuation of the journey, rather than a cue to sprint back to the barn as happens with out and back dead end situations.
- As a standard practice, Metro builds trails with a firm and stable surface in order to accommodate a wide range of physical abilities. Metro recognizes fine crushed rock as meeting this criteria. The US Access Board provides the following guidance on trail surfacing: "Paving with concrete or asphalt may be appropriate for highly developed areas. For less developed areas, crushed stone, fine crushed rock material, packed soil, soil stabilizers, and other natural materials may provide a firm and stable surface."
- A trail difficulty rating system allows visitors to select a trail experience based on their level of ability. Trail ratings should consider surface material, grade, cross slope and distance between features. According to Access Recreation, only hard/paved surfaces are considered easy. Moderate level trails are those with: crushed rock surface, minimum 3 feet wide, running slopes at 5 - 8%, cross slopes 2% or less with resting areas a maximum of every 200 feet. Difficult trails are those that are compacted, crushed rock or natural surface, minimum 3 feet wide, running slopes sustained at 8 - 10%, cross slopes 3% or less, with resting areas a maximum of every 100 feet. Also, constructed or natural barriers may be present.

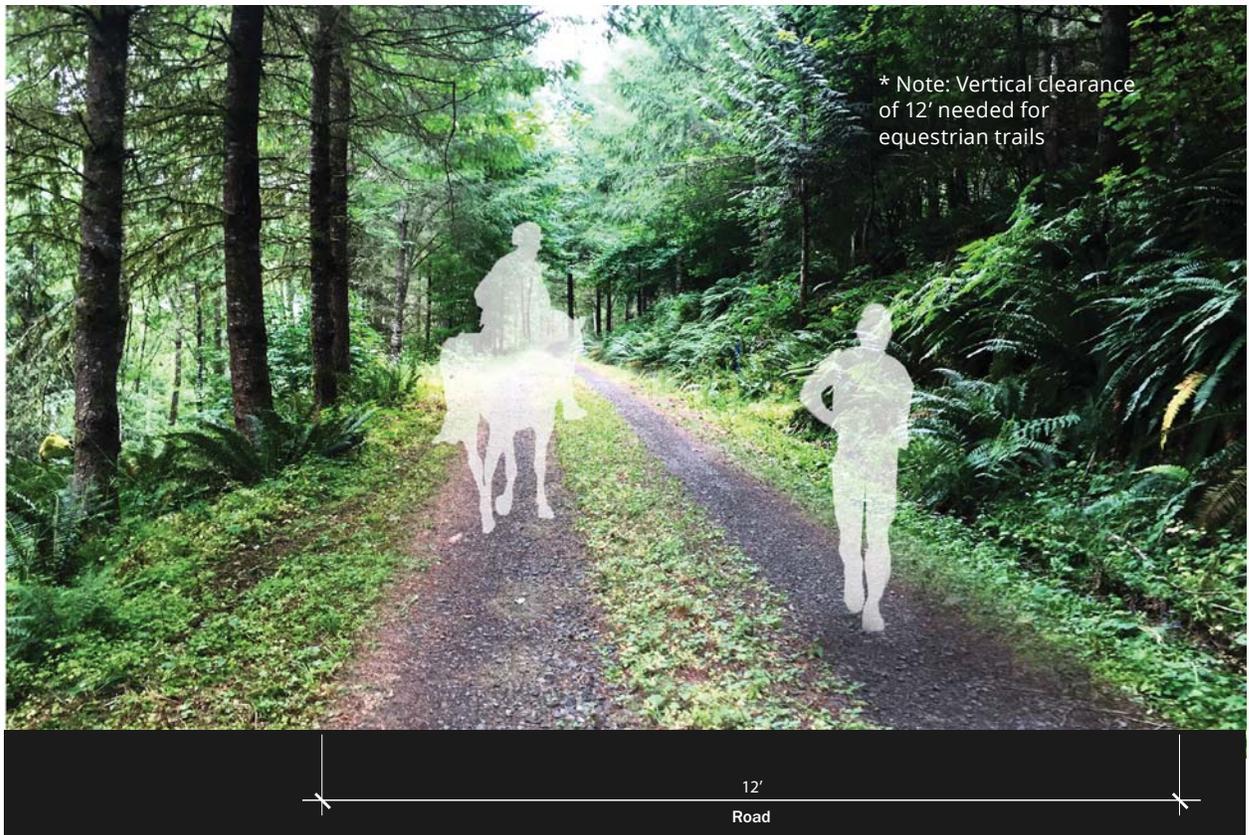


Figure 5.5: Existing site road (*not to scale*)

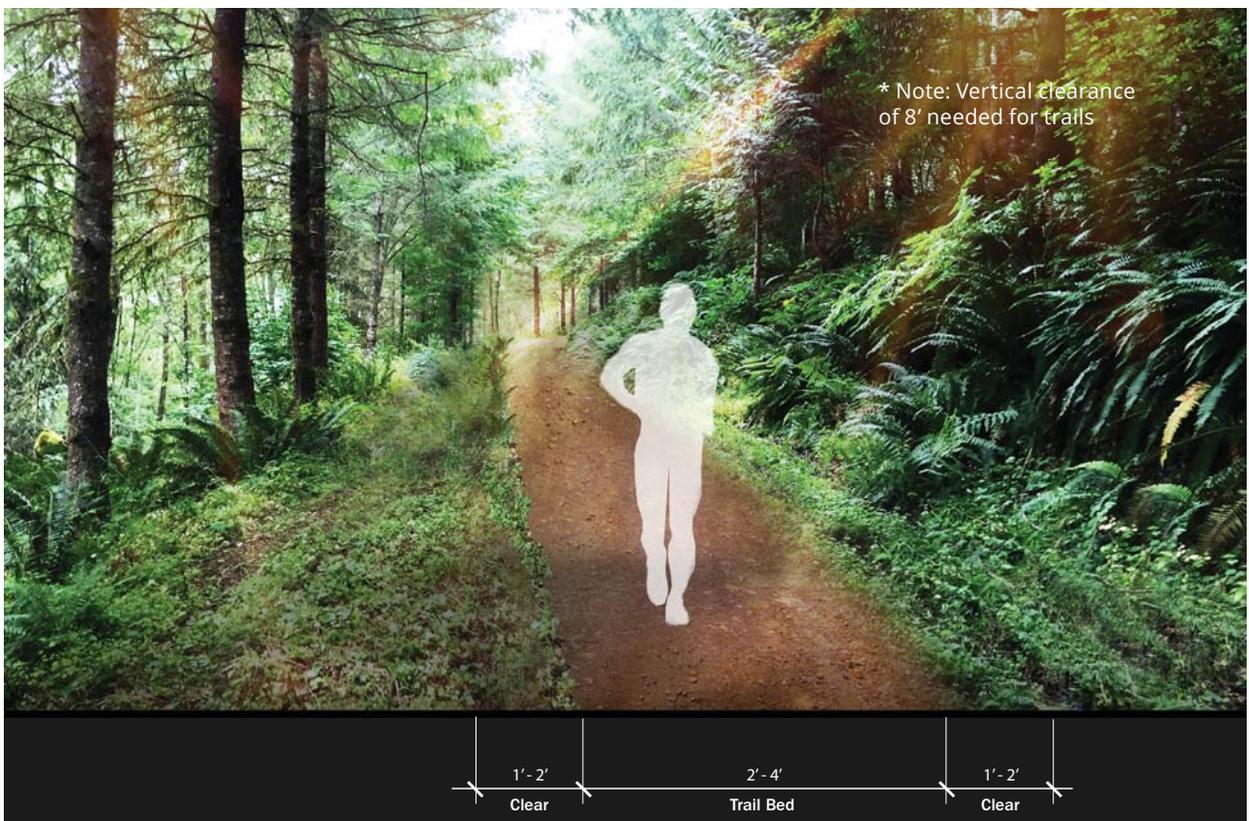


Figure 5.6: Proposed Nature Trail (*not to scale*)



Figure 5.7: Proposed Multi-Use Trail (*not to scale*)

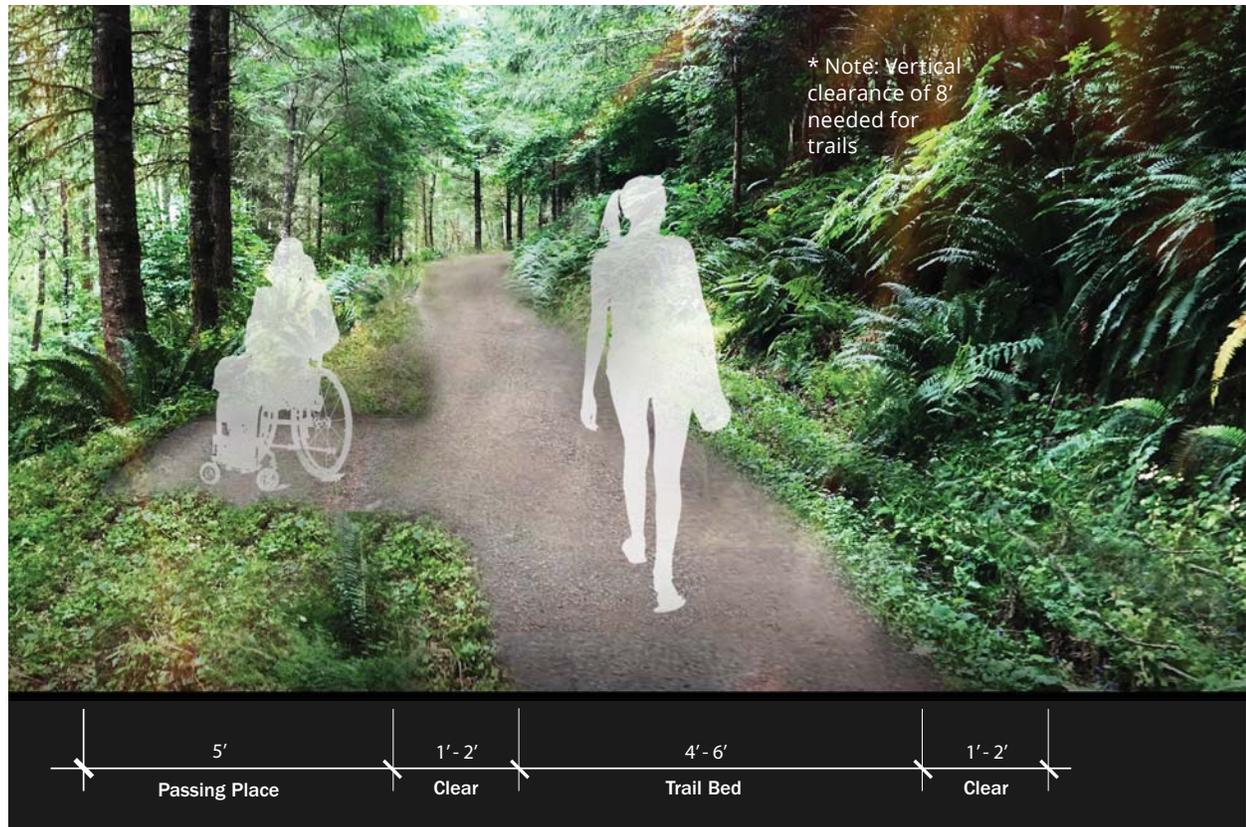


Figure 5.8: Proposed Multi-Use, All Abilities Trail (*not to scale*)

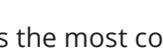
Trail Segment	Length (mi) **	Type	Users	Approximate Width	Surface	Target Slope
(A)	1.5	Existing Road, Trail Use Allowed		10'-12'	Gravel	Varies
(B)	0.9	Multi-Use Trail (All Ages & Abilities)		6'	Crusher Fines	<5%
(C)	0.6	Nature Trail (All Ages & Abilities)		3'-4'	Crusher Fines	<5%
(D)	0.3	Multi-Use Trail		5'-6'	Native Surface	<5%
(E)	0.5	Nature Trail		3'	Native Surface	<5%
(F)	1.0	Multi-Use Trail		4'-5'	Native Surface	<5%
(G)	0.6	Multi-Use Trail		4'-5'	Native Surface	<5%
(H)	0.3	Multi-Use Trail		4' - 5'	Native Surface	<5%
(I)	0.8	Multi-Use Trail		4' - 5'	Native Surface	<5%
(J)	0.5	Multi-Use Trail		4' - 5'	Native Surface	<5%
(K)	0.3	Multi-Use Trail		4' - 5'	Native Surface	<5%
(L)	0.5	Multi-Use Trail		3'-4'	Native Surface	<10%
(M)	0.4	Existing Road, Trail Use Allowed		10'-12'	Gravel	Varies
(N)	0.1	Multi-Use Trail		5' - 6'	Native Surface	<5%

Table 5.1: Chehalem Ridge Nature Park trail types and design

* Note: Trail lengths and widths are approximate and are subject to change during the design process.

User Conflicts

Potential conflicts between user groups, was the most common concern raised by community members during the Chehalem Ridge public engagement process. Research shows that user conflicts are often perceived more than actually experienced. Awareness that all trail user groups have similar goals and values when visiting nature can help reduce the perception of conflict. Trail layout and design can further help reduce conflicts between different user groups. Methods include: dispersing users at areas of concentrated use such as trailheads with trail options, providing adequate trail widths to allow for comfortable passing and including signs that describe proper etiquette or codes of conduct (such as who yields to whom). Active management, including monitoring of trail usage and visitor education, can further reduce the potential for conflicts. If conflicts become an issue despite these efforts, adaptive management approaches should be considered (see chapter 6).



Example of trailhead parking lot at Mt. Talbert Nature Park.

Getting to the Park

Clear information will help visitors efficiently and safely make their journey to CRNP. Clear directional guidance, including travel options, should be provided within Metro’s promotional materials for the park.

Physical directional or wayfinding signs help clarify appropriate routes for visitors to travel as well as instill confidence in visitors as they approach the park. Metro should consult with Washington County to determine the process for installing directional signs within public road rights-of-way.

Visitors should also be informed, before they visit, that the park is within a rural area with working farms and equipment. In Oregon, we all value the role of the local farmer and the access we have to fresh produce grown locally. It is important that park visitation not negatively impact the local agricultural industry. As park information is distributed, it should include awareness of the need to respect neighboring residents and businesses, including the local agricultural community.

Maintenance & Emergency Access

Maintenance and emergency access would be provided from the southern edge of the property via the Dixon Mill access point, the eastern edge of the site at Southwest Gnos Road via an existing gate and road and from the northwest via Southwest Burgarsky Road, potentially using a future trail to penetrate the site and link to the multi-use trail system. While many existing internal gravel roads will be decommissioned, several will be maintained to provide maintenance and emergency access as shown in Figures 5.2 and 5.3. Furthermore, the primary trailhead and a clear area at the top of Iowa Hill provide space for helicopter landing if needed.

Secondary Trailhead

A secondary trailhead located in the northern end of the park is a priority for Metro and its goal of providing safe, equitable access to nature close to home. As part of the access master plan process, several locations for a northern trailhead were evaluated. However, as funds are not currently available to build the second trailhead at this time, and recognizing that site conditions may change in the future, this plan does not identify a specific location for it. When funds become available to build a second trailhead in the northern portion of the nature park, Metro will undergo a master plan refinement process to confirm the specific location of the second trailhead. The master plan refinement will include a public engagement process. If Metro’s land holdings in the area change prior to funding being identified, new properties may be included in the secondary trailhead location assessment.

Restoration

Restoration work will be on-going at Chehalem Ridge Nature Park. In part because of the young age of the Chehalem Ridge forests and the recent history as a commercial timber farm, active forest management will continue across most of the natural area for decades. For example, within the next ten to twenty years, much of the forest will be thinned again. This second thinning will promote the development of tall, large diameter conifers and help maintain the hardwood trees such as willow and Pacific dogwood in the forests. The creation of additional standing dead trees (snags) and down wood for wildlife use will be a part of the on-going forest thinning. Most site roads will be decommissioned at least until the next thinning to reduce disturbance to wildlife and impacts to water quality.

Metro will continue to monitor and treat invasive non-native plants, maintain the access road system and consider other restoration work to enhance water quality and wildlife habitat.





Nature Education

Providing safe and welcoming access to the community at Metro's parks is essential to our mission. Metro's parks and natural areas are designed as places for all Oregonians to learn about and enjoy nature and to develop their own skills and identity as conservation leaders. Metro's nature education programs happen outdoors in our parks and focus on fostering nature connection through hands-on, experiential learning that is participant driven.

Given Chehalem's rich and diverse natural setting and history, there are many interpretive themes and educational opportunities that can be explored. Stories would be told on traditional sign panels as well as print materials or guided tours for all ages. During the community involvement process, community members expressed strong interest in learning more about local plants and wildlife followed by local history and culture. The following is a preliminary list of interpretive themes that should be fully explored through the preparation of a dedicated park interpretive program:

- Local Culture: migrant laborer contributions
- The Tualatin Watershed: the importance of clean water
- Washington County's agricultural legacy and farming culture
- Landscape in Transition: site restoration, natural processes and conservation
- Riparian Corridors: their role in protecting water quality
- Native People: the traditional homeland of the Tualatin Kalapuya People
- Local Wildlife
- Legacy Oaks
- Habitat Diversity: what it is and why is it important
- Volcanic Peaks: regional and local landmarks and their formation
- The Pacific Madrone tree

"Having signs around and stating some facts about wild life, such as bird species, trees and shrubs... Having a bird look out area would also be nice."

Alejandra, 18 years old

Metro should continue to work with interested parties including nature education providers, local historians, neighbors and culturally specific groups to develop placed based interpretive materials and programs for Chehalem Ridge. Nature education is particularly important to Metro's goals to enhance diversity, equity and inclusion at its parks. For people of color and non-English speakers, barriers to accessing nature include transportation limitations and safety concerns associated with being in nature. Metro guided tours at Chehalem should consider meeting at community centers and shuttling guests to the site. Also, having ambassadors or guides provide a welcoming and positive experience in nature is important to overcoming concerns or fears some people may have being in nature. Guides that reflect our community in language and diversity will help establish a level of comfort and trust early in an experience. Also, learning that being in nature is safe and how to experience nature while respecting and protecting the environment are important topics to be addressed with all visitors to the Park. Metro needs to continue to listen carefully to racially diverse community members and be flexible in creating solutions to education and access issues together.

Special Places

Chehalem Ridge Nature Park's 1,230 acres offer countless opportunities to enjoy the sights, sounds, and textures of the natural environment. There are several places throughout the site that offer a particularly special or unique experience. When planning the system of future trails, the project team considered how to provide access to as many of these special places as possible while also protecting the natural assets of the site.

One of the most impressive views available from the Chehalem Ridge is at its highest point, Iowa Hill, where an oak tree has stood for decades, surrounded by the densely-planted Douglas fir forests. Metro has begun selective clearing, thinning, and management in this area for habitat reasons – but this also opens the area to stunning views of the Tualatin Valley and the Coast Range beyond. A trail connection to Iowa Hill will soon culminate in an overlook, with places to sit and interpretive information to allow visitors to pause and take in the view.

While Iowa Hill and other high points on the site provide expansive views, lower places at Chehalem offer their own unique experiences. The several creeks or drainages that flow through the park's ravines thrive with wildlife activity. For example, Christensen Creek is currently home to beavers, and a dam can be observed from the creek's edge. These habitat-rich areas are a great place for visitors to take a peek into the daily life of the critters living at Chehalem Ridge. As shown in Figure 5.10, a boardwalk overlook at a seasonal pond with low-impact footings would allow visitors to be immersed in the riparian habitat area while also defining the area open to visitors.



Figure 5.9: Proposed Iowa Hill Overlook

Other special places include viewpoints from the edges of the site (while maintaining ample setbacks so as to not encourage exploration onto private property), habitat restoration areas and the mature oak-madrone woodland at the northern end of the trail system. The network of trails that provide access to and between these destinations will also provide a pleasant experience, with occasional places to stop and rest, wayfinding to help with orientation and interpretive information. Different trail opportunities will offer a variety of experiences for hikers, walkers, equestrians and beginning skill level off-road cyclists. Figure 5.11 illustrates an intersection of trails within the park.



Figure 5.10: Proposed boardwalk at riparian area



Figure 5.11: Intersection of proposed park trails



6. Implementation

The vision for the Chehalem Ridge Nature Park has tangible public support. The park will be built in a measured process over several years, considering careful use of public funds for further plan refinement and engineering. The plan will be submitted for thorough regulatory review and continued outreach to regional stakeholders. The vision for Chehalem Ridge is now one step closer to reality...

Phasing

After the design and permitting process, construction of the first projects is projected to begin during the summer of 2019. Metro's goal is to open the site to the public in early 2020. Funding is currently set aside to complete an initial first phase project. Depending on costs at the time of construction, the following improvements could comprise a logical Project 1. This would include the following elements (see Figure 6.1):

- A trailhead at Southwest Dixon Mill Road
- Passenger vehicle and equestrian parking
 - Multi-use shelter and picnic area
 - Entry plaza with vault toilets
 - Welcome kiosk with map and information signs
 - Lawn area for family activities
 - Drinking fountain and trash/recycling receptacles

- Trails (approximately 3 miles total)
- 1 - 1.5 miles of multi-use trails
 - 0.5 miles of nature trails
 - A 1 - 1.5 mile subset of all ages and abilities trails
 - 1.5 miles of site roadway repurposed for trail use
 - Wayfinding and regulatory signs
 - Benches and overlooks

Maintenance yard – to support facility operations

Subsequent phases, to be initiated once additional funds are identified, would include an expansion of trailhead features, additional trails, site interpretation, nature-based play opportunities and the secondary trailhead.

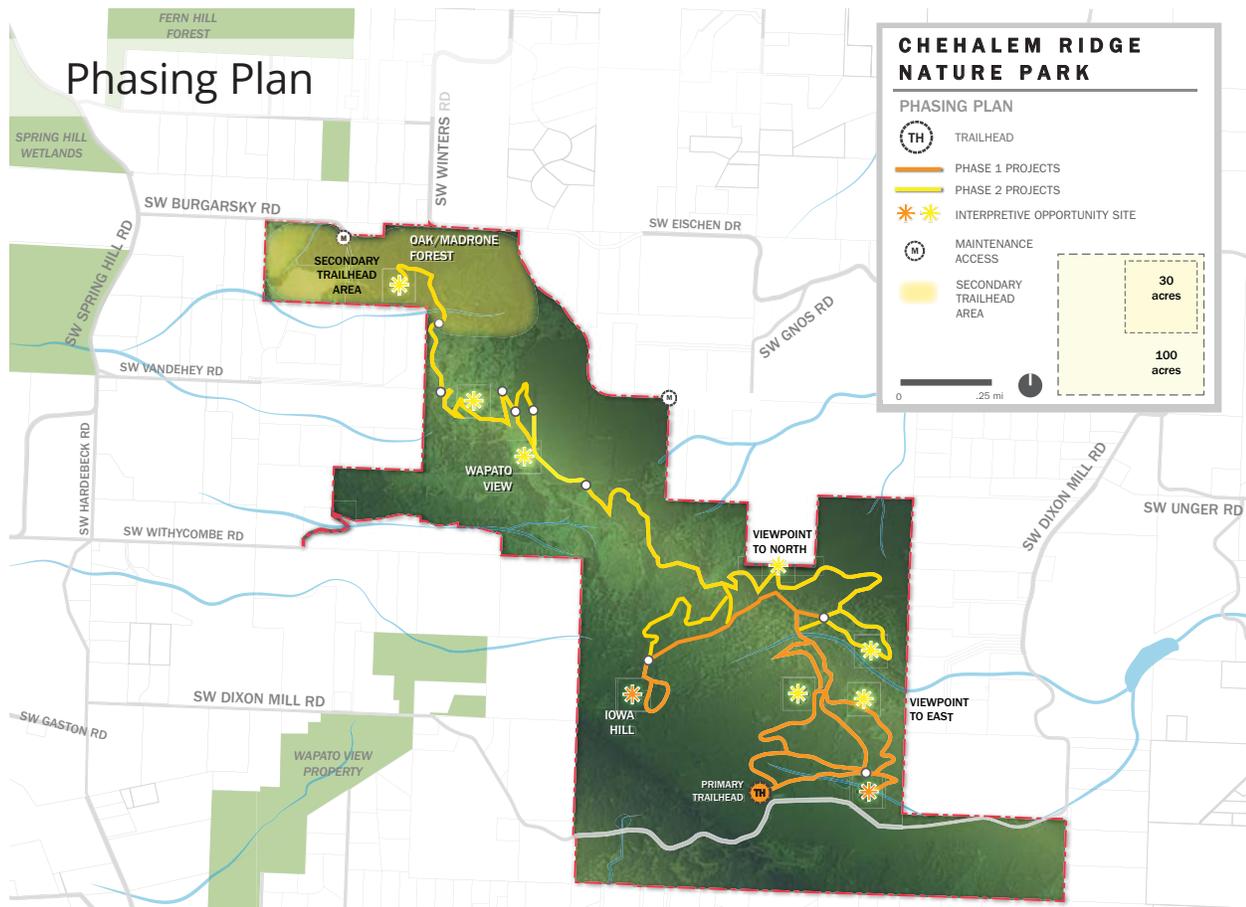


Figure 6.1: Proposed Phasing Plan

Cost Estimate

The preliminary Project 1 (see preceding Phasing Plan) cost estimate below can be used as a tool to plan for funding and phasing. It is based on conceptual drawings (and 2017 dollars) and will be updated once detailed engineering drawings are prepared at a later date. Contingencies are conservatively estimated at 40% to reflect the conceptual nature of planned improvements.

Planning-level costs shown in this table were calculated using a range of potential costs per feature; therefore, costs are shown by the “high” and “low” ends of this range. Actual costs are expected to vary within this range depending on specified furnishings, areas to be graded, and other variable factors determined during the design and construction of improvements. Soft costs include design fees, permits, financing, legal fees, survey and insurance.

Preliminary Cost Range	Costs (LOW)	Costs (HIGH)
PROJECT 1		
SW Dixon Mill Trailhead		
Entry signs and gates	\$37,000	\$44,000
Access driveways from SW Dixon Mill to parking areas	\$28,000	\$35,000
Vehicle parking	\$72,000	\$168,000
Stormwater area--planter and associated materials	\$40,000	\$54,000
Equestrian parking	\$18,000	\$22,000
Operations & maintenance yard	\$75,000	\$105,000
Site Prep: Clearing, grubbing, earthwork and erosion control	\$209,000	\$290,000
Trailhead plaza, map and seat walls	\$66,000	\$100,000
Furnishings (benches, vault toilet, fountain, trash cans, picnic tables)	\$91,000	\$119,000
Multi-use shelter (1800sf)	\$160,000	\$240,000
Picnic area and planting	\$45,000	\$60,000
<i>subtotal</i>	\$841,000	\$1,237,000
Trails and Wayfinding Signs		
<i>subtotal</i>	\$135,000	\$168,000
Overlooks and Interpretation (at riparian habitat area and Iowa Hill)		
<i>subtotal</i>	\$87,000	\$128,000
Art (1%)	\$10,630	\$15,330
<i>subtotal</i>	\$1,074,000	\$1,548,000
Utilities (water and electric service)		
<i>subtotal</i>	\$175,650	\$418,000
Direct Construction Cost (rounded)	\$1,250,000	\$1,966,000
<i>With added 4% 'Inflation/year for 2 years</i>	\$1,352,000	\$2,126,000
Contingency and Contractor's Overhead and Profit (40%)	\$541,000	\$850,400
<i>Subtotal</i>	\$1,893,000	\$2,976,400
<i>Soft Costs (30%)</i>	\$568,000	\$893,000
Total Cost	\$2,461,000	\$3,869,400

Table 6.1: Preliminary Project 1 Cost Range



Operations and Maintenance

PARK REGULATIONS

All rules and regulations at Chehalem will be consistent with Metro’s Title 10, which outlines regulations “governing the use of Metro owned and operated regional parks and greenspaces facilities by members of the public in order to provide for protection of wildlife, plants and property, and to protect the safety and enjoyment of persons visiting these facilities.”

For public security and safety, hours of operation and regulatory signs will be installed at each access point. An orientation map of the nature park will be installed at the trailheads to assist visitors and emergency and police response teams with wayfinding. Regulatory signs will include public use restrictions on dogs, fires, camping, motorized vehicles, hunting, smoking, intrusive noise, plant collecting and other uses outlined in Title 10. Due to conflicts with wildlife, Metro’s “no pets” policy will be enforced consistent with other Metro-managed natural areas.

STAFFING

Once the Park is formally open, staff in several distinct program areas will be required to ensure successful maintenance and operation of the site. Key responsibilities for each are noted below.

Rangers

- Manage day-to-day operations of the site
- Maintain trails
- Provide enforcement
- Leading volunteer groups on maintenance and improvement projects

Land Managers

- Oversee and/or perform monitoring, restoration and enhancement projects
- Maintain natural areas
- Maintain natural surface trails and all trail clearance corridors
- Manage and clean up illegal dumping

Scientists

- Coordinate monitoring, restoration and enhancement projects

Nature Educators

- Provide nature education opportunities to the public
- Work with community based organizations to develop their own skills and identify as conservation leaders

Volunteer Coordinators

- Work with community groups on restoration and site stewardship projects

MONITORING AND ADAPTIVE MANAGEMENT

Once this project is implemented, trails and trail use will need to be monitored for appropriate use, and to make sure that they function as intended. The system of trails and trail uses should be modified in the future to adapt to new information, new site conditions and lessons learned about how people and wildlife use the site.

Metro staff will proactively monitor for potential issues such as: unauthorized trails, conflicts between different types of user groups and soil erosion. If issues are found, Metro may adjust its approach to managing the site. Possible responses include activities such as: decommissioning unauthorized trails, implementing seasonal trail closures or alternating daily or seasonal trail closures by user type.

SAFETY AND SECURITY

Access Control

Vehicle access will be controlled to prevent after hours use. Each vehicular entrance will be controlled with automatic gates, which will automatically lock after hours. Site boundaries are marked with carsonite posts to clearly delineate the public/private edge. Fencing will be considered and installed on an as-needed basis to control access in problem locations where other measures are not sufficient.

Trail Monitoring and Maintenance

Routine trail maintenance conducted on a year-round basis will not only improve trail safety, but will also prolong the trails' longevity. The key to trail maintenance will be to institute regularly scheduled monitoring to identify trail problems early, and to catch and address "social" or "demand" trails. Monitoring can be a time consuming task. Trail volunteer groups will provide vital assistance in monitoring the site above and beyond what staff can provide.

During the first year after construction, and after the first heavy rains, close attention should be paid to drainage and erosion patterns on soft surface trails. It is common for trails to need additional maintenance and adjustment during the first season. Ongoing trail maintenance activities will typically include vegetation clearing and pruning along trails to keep passages and selected views open, erosion control measures, trail pavement surfacing and stabilization, bridge and culvert clearing and upkeep, litter and illegal dumping clean-up, replacing signs and closing "social trails" through the use of natural barriers and vegetation.



Multiple uses on trails will require ongoing monitoring and adaptive management.



Trail maintenance conducted year-round helps to improve trail safety and longevity.



Kiosk at Canemah Bluff Nature Park, describing park trails and regulations



Picnic shelter, Oxbow Regional Park

Managing Parking

The parking lot at Dixon Mill Road will be designed to accommodate about eighty cars, including four ADA parking spaces. Overflow parking cannot be accommodated on Dixon Mill Road. Metro may need to coordinate with Washington County to install “no parking” signs so that people don’t park on the roadway. Parking rules will be strictly enforced by Metro staff and an on-contract security service if proven to be an issue.

Rules Enforcement

Metro’s rangers enforce and educate the public about Title 10 of Metro’s Code covering Regional Parks and Greenspaces. Title 10 provides regulations governing the use of Metro owned or operated Parks and Nature facilities by members of the public in order to provide protection for wildlife, plants and property, and to protect the safety and enjoyment of visitors. Title 10 restrictions include pollution, dumping, disturbing wildlife, accessing waters, camping, the consumption of alcohol, the use of fireworks, domestic animals and fires. Park hours, if not posted, are legal sunrise to legal sunset.

Maintenance of Park Facilities and Amenities

Routine maintenance of the park will include cleaning the restrooms, litter pick-up and general monitoring. Routine seasonal maintenance of the nature park facilities will include upkeep of the restroom building, benches and picnic tables, signs, and mowing of grass areas.

Emergency Management Plan

Metro’s restoration work and long term management strategy includes identifying and reducing fire risks where possible. Additionally, an Emergency Management Plan is developed for each site that includes information to assist Metro and cooperating agencies responding to a fire or emergency on Metro property. A Fire Management Plan has been developed for Chehalem Ridge and will be updated and expanded to include emergency response information, prior to implementing formal public access. It shall describe strategically placed safety zones, commitment to good forestry practices, access road maintenance standards and delegation of authority. Metro’s code already prohibits fires and smoking at its parks and natural areas.

Metro follows the Oregon Department of Forestry Industrial Fire Precaution Levels and restrictions as well as closures deemed necessary by the local fire authority. Metro is committed to working with local emergency response and fire prevention and suppression agencies. This includes maintaining good communication and annually reviewing the Emergency Management Plan for the site.

Partnership Opportunities

Partnerships and volunteers are valuable in all aspects of park management throughout the region and are essential in leveraging limited public funds. There will be a number of ways that partner organizations, community groups and individual volunteers can become involved at Chehalem Ridge Nature Park to enhance habitat quality for wildlife and help ensure safe and welcoming experiences for the public.

Metro regularly works with community and corporate groups to do service and teambuilding activities and with scouts and school groups to do hands-on service learning. Our volunteer coordinators often work with service clubs, faith-based organizations, school clubs or classes, youth groups, community-based organizations, book clubs, hiking or walking groups and singles or other Meetup groups. We are able to tailor service learning projects or nature education programs for groups of any size, age, purpose or ability, for projects or programs lasting one day to others that span years.

Key opportunities are described briefly below.

Nature Education

Volunteer naturalists help expand program offerings beyond what staff alone can offer. Metro has a well-established volunteer naturalist program in place and relies on these very dedicated and highly trained volunteers to lead nature walks for the general public and civic groups, and to deliver outdoor education programs such as school field trips.

Relationships with existing nature education providers should continue to be fostered as a means of leveraging existing resources thereby expanding opportunities for all. In some cases, established groups need natural places in which to conduct their own education programs. Metro should continue to work with partners to meet their needs. Community groups can help Metro to activate Chehalem Ridge.

Groups which have already partnered with Metro to provide learning opportunities at Chehalem Ridge include: Pacific University, Tualatin Riverkeepers, Adelente Mujeres, Centro Cultural, and Trackers Earth. Another group which has expressed interest in nature education programming at Chehalem is Adventures Without Limits, based in Forest Grove. Adventures Without Limits specializes in getting people of all abilities, levels and backgrounds outdoors while also having staff naturalists capable of leading inclusive and informative adventures into nature.



Metro naturalists worked with staff from Centro Cultural to develop nature education programs at Chehalem Ridge





Stewardship

Volunteers are an essential means of expanding Metro's operations capacity at its parks and natural areas. Volunteer stewards care for site assets by providing "eyes and ears" above and beyond what staff can provide. Through walking and monitoring of the trails, volunteers can alert staff early to issues in need of attention. They can also serve as "ambassadors" for Chehalem, answering questions and ensuring that visitors are abiding by rules and trail etiquette.

Site stewardship agreements with organizations representing individual user groups are an opportunity to foster an ethic of taking care of the land, trails and habitat areas. Stewardship agreements would include responsibility to encourage appropriate use of trails and the site.

Groups that expressed interest in contributing to stewardship at Chehalem Ridge during the planning process include: Oregon Equestrian Trails, Adventures Without Limits, Trailkeepers of Oregon, and Northwest Trail Alliance.

Restoration

Metro utilizes volunteers to assist in restoration efforts at its parks and natural areas. Opportunities to volunteer at Metro's parks and natural areas enhance our sites while building relationships and developing a sense of stewardship. Volunteers perform ongoing monitoring to help assess and evaluate the success of restoration and other management activities. Other volunteer activities may include planting native trees and shrubs, invasive plant removal, creating habitat for wildlife and native seed collection.

Junior and senior level students from Gaston High School have already pitched in on restoration efforts at Chehalem Ridge. The Park will be a great asset for Gaston community members, including students and teachers. Efforts should be made to continue the partnership with Gaston School as well as other groups in order to leverage staff resources while building a sense of stewardship for Chehalem Ridge within our community.



Students from Gaston High School work to rid Chehalem Ridge of invasive blackberry plants

Public Agency Partners

The region is fortunate to have many capable agencies that provide valuable public services. Metro should continue to work closely with other providers of parks, trails and nature including: the local cities, Clean Water Services, Washington County and the U.S Fish and Wildlife Service. Working together, we can better achieve natural resource protection and our regional conservation goals, along with desired regional trail connections and a variety of diverse park and nature experiences.

Moving forward through the land use and permitting process, coordination with Washington County, the Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife and the Department of State Lands will be important.



Metro Councilor Kathryn Harrington at a Community Event with Jeffrey Dalin, the Mayor of Cornelius and Forest Grove Mayor Peter Truax.



Infrastructure

The primary site engineering considerations involve utility provision at the primary trailhead at Southwest Dixon Mill Road.

Water

Water service is desired for both cleaning and drinking. There is currently no water service to the trailhead location, so a new well would be needed or a water line would need to be extended uphill (from LA Water Cooperative supply), using pressure booster pumps. Some wells have been drilled along Dixon Mill Road, but there are some risks and costs involved, including not finding water in the initial drilling or not finding enough flow capacity to meet demand. To supply onsite distribution, there would be an option to either locate the tank at a higher elevation to provide gravity pressure with no onsite power required, **or** provide a second booster pump downstream of the storage tank, which would require onsite power. The flow rate of the pump supplying the onsite storage tank would not have to meet peak demand, but would refill the tank. The tank would be sized in balance with the refill rate to manage peak demands. The flow rate of the onsite pump would have to meet peak demands and pressure needs.

Power

Power to the site would be used at the maintenance workshop building as well as to power any security lights and pump water in the event of a well. Any electrical needs at the trailhead would likely require an extension of service east along Southwest Dixon Mill from existing residences, a generator on site or photo-voltaic power sources and a battery. Preliminary discussions are underway with PGE.

Septic

Vault toilets are assumed for the trailhead. Each of these sits atop an underground tank or vault, up to 1000 gallons in size, which is periodically pumped out, with the waste hauled off site to a wastewater treatment plant.

Stormwater

With very little impervious surface proposed, it is not anticipated that much stormwater treatment will be required on site, but trailhead concept designs include space for natural infiltration. In an effort to provide consistency in enforcement, any new development will be reviewed by Washington County. The County will consider alternative proposals on a case-by-case basis where site conditions warrant a non-standard approach to managing stormwater. Grading and Erosion & Sediment Control will be designed in accordance with County standards. If project disturbance area exceeds one-acre, then a 1200-C permit through Oregon DEQ will be required.

Land Use Permitting

The entire future park property is in unincorporated Washington County. Land use approval and permitting for all proposed construction will need to be approved by Washington County. The entire Chehalem Ridge property is located in Washington County AF-20 zoning (Chapter 344, Article III), in which park uses and associated development are permitted.

Washington County code prescribes the applicable local application and review process, including submission requirements, review standards, and decision procedures. County standards also require Metro to address transportation demands and impacts associated with the proposed nature park, as well as an analysis of existing infrastructure and needed improvements. This will be accomplished through a formal transportation impact statement that will aid the county's review.

For a project such as Chehalem Ridge, the report will likely consist of:

1. Trip generation estimates for the purpose of assessing the Transportation Development Tax and off-site impacts.
2. Sight distance analysis.
3. Discussion about circulation within the site/ parking area.

The final transportation improvement requirements will be established in the land use decision. Additionally, a Transportation Development Tax is imposed on all new development in Washington County.

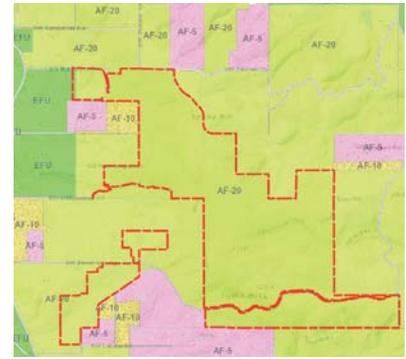


Figure 6.2: Washington County Zoning Map (excerpt)



Dixon Mill Road near the proposed entrance to the Park's primary trailhead.



Appendices

Appendix A: Precedent Facility Inventory

Appendix B: Plan Alternatives Evaluation

Appendix C: Public Input Summary

Appendix A: Precedent Facility Inventory

Table 1: CHEHALEM RIDGE NATURE PARK: PRECEDENT FACILITY INVENTORY						
Site	Owner	Area (ac)	Approx.Trail Miles	Overview	Amenities	
Tillamook State Forest	Oregon Dept of Forestry	334,000	60 mi	Large natural area popular for mountain biking, hiking/backpacking, camping, swimming, and fishing. Extensive recreational facilities.	230 Campsites (developed/undeveloped, vehicular), restrooms, picnic sites, trails (mountain bike, hiking, horse), Off-Highway Vehicles	
Capitol State Forest, Olympia WA	Washington State Dept of Natural Resources	91,650	166 mi of singletrack	15 miles from Olympia, WA, and easily accessed from hways 101 and I-5. Popular destination for mountain bikers, hikers, and hunters.	Hiking, camping, mountain biking, hunting, fishing, All-Terrain Vehicles	
McDonald-Dunn Research Forest, Benton County OR	Oregon State University (manages)	11,250	20 mi	Large forested area known primarily by locals - used for forestry research by OSU, also includes 20 miles of trails for hiking/biking	Hiking, biking, horseback riding	
Forest Park, Portland OR	City of Portland Parks and Recreation	5,157	70+ mi	Beloved Portland refuge from urban life - and the largest urban park in the country	Day use trails for hiking/mountain biking/horseback riding, wildlife/birdwatching	
Tualatin Hills Nature Park, Beaverton OR	Tualatin Hills Parks & Recreation Dept.	2,380	5 mi	Natural area with trail network	Day use trails, wildlife/birdwatching, restrooms, visitor center	
Stub Stewart State Park, Washington County OR	Oregon State Parks	1,800	20 mi	Large forested area on the eastern edge of the Tillamook State Forest in the middle of the Banks-Vernonia state trail.	Hiking, backpacking, 136 campsites, 15 cabins, visitor center, RV hookups, restrooms and showers, horse camps, mountain biking	
Fernhill Wetlands, Washington County OR	Clean Water Services	748	1.2 mi	Trails in large wetland area currently the focus of restoration projects	Walking, wildlife/birdwatching	
Tryon Creek State Natural Area, Portland OR	Oregon State Parks	658	8 mi	Oregon State Park managed jointly by the Friends of Tryon Creek through a public-private partnership	Day use trails, 3-mile paved biking trail, 3.5 miles of horse trail, restrooms, nature center and store	
Jackson Bottom Wetland Preserve, Hillsboro OR	Hillsboro Parks & Recreation	635	2.5 mi	Rehabilitated wetland area with significant wildlife habitat	Day use trails, picnic shelters, restroom, info kiosks, overlooks, and an education center building	
Graham Oaks Nature Park, Wilsonville OR	Metro	250	3 mi	Natural area with trails, collocated with elementary and middle schools. Includes part of the Ice Age Tonquin Trail, a planned regional connector trail between Wilsonville, Tualatin, and Sherwood.	Day use trails, biking, picnic shelter, restrooms	
Cooper Mountain Nature Park, Washington County OR	Tualatin Hills Parks & Recreation Dept.	231	3.5 mi	Upland natural area surrounded by primarily single-family residences that will continue to provide an important recreational and natural amenity to residents as further development occurs in the area.	Day use trails, wildlife/birdwatching, 2 restrooms, visitor center	
Tualatin River National Wildlife Refuge, Washington County OR	US Fish & Wildlife Service	160	5 mi	Urban national wildlife refuge - rich and diverse watershed habitat very close to urban area. Key stopping point on the Pacific Flyway.	Day use trails, visitor center, wildlife/birdwatching	
Riverview Natural Area, Portland OR	City of Portland Parks and Recreation	146	no official trails	City of Portland owns this natural area and plans to manage it from a conservation standpoint with a science-based approach - recreation is not the primary goal.	Day use trails, viewpoints, birdwatching, portable toilets.	
Henry Hagg Lake, Washington County OR	Washington County	90	13.7 mi	Centered around Hagg Lake	Boat launches, fishing, hiking/biking trails, disc golf, observation decks. Day use only.	
Rood Bridge Park, Hillsboro OR	City of Hillsboro Parks & Recreation	61	2.3 mi	Community park easily accessible by road from downtown Hillsboro	Walking, picnic tables/shelters, playground, tennis, garden, lawn areas, restrooms, drinking fountains.	
Bald Peak State Scenic Viewpoint, Yamhill County OR	Oregon Parks & Recreation	26		Small forested area and clearing at 1,629 feet provides a view of the Tualatin River Valley	Day use - walking, picnic site, restroom	

Estimated Visitation Rates	Parking	Budget/Fees	Notes
Unknown	Campgrounds include parking areas	Budget approx. \$6 million per year; revenue \$13 million. \$5/\$25 fees for single/group campsites, plus some additional vehicle fees	Much larger than Chehalem ridge but includes state park areas of comparable size, like Stub Stewart State Park.
800,000 visitors per year	Some campsites and trailheads offer free day-use parking. Parking facilities not adequate for current use	Free entry and use; first-come-first-served	
100,000 visitors per year	5 parking areas around perimeter	Free entry	
Approx 500,000 annually	On-street parking along some bordering streets. Limited parking at some trailheads.	Free entry	
650,000 visitors per year	Free parking	Free day use. Visitor center available to rent for private events.	
Day use: 92,052 visitors per year. Overnight: 52,149 visitors per year.	Parking available at campsites. \$5 day use parking; \$30 year-long parking permit; \$50 2-year parking permit.	\$21/night for tent sites, \$44/night for cabins.	Comparable size to Chehalem Ridge, but farther away from major urban areas. Potential opportunity for regional trail connections.
Unknown	Free parking	Free entry	Educational opportunities
535,000 visitors per year	Parking at visitor center	Free entry	
20,000 visitors per year for education center	Parking lot at entry	\$2 suggested donation.	Wildlife is an important draw.
80,000 visitors per year	Parking at entry	Free entry	conceptual connections to other natural areas, especially TRV NWR
Unknown	Free parking at visitor center	Free entry	
104,000 visitors per year	Free parking at visitor center	Free entry	
not yet officially open to public	Recreational	Free entry	
803,000	Parking with fee	\$6/day for parking	Mountain biking, boating, fishing hub for region.
Unknown	Free parking	Free day use; up to \$67.50 fee for use of picnic shelters for events	
Unknown	Small parking area	Free day use; faced potential closure due to budget deficit in 1996	Lack of success potentially because no water/restrooms; access challenges. Views are primary draw.

Appendix B: Plan Alternatives Evaluation

Alternative 1: Dixon Mill Trailhead

Alternative 1 concentrated access improvements in the southern half of Chehalem Habitat protection and enhancement would be focused in the north part of the site, although such activities would occur throughout the park. A trailhead was proposed off Southwest Dixon Mill Road and would accommodate 30-50 cars, and include a bus drop-off for groups and students. An equestrian trailhead and parking lot was also proposed in this alternative, adjacent to the vehicular parking. A multi-purpose shelter for use by groups was proposed, as were restrooms and a picnic area, which may include further shelters. In the vicinity of this trailhead, nature play facilities were proposed, either in one concentrated location or dispersed along a trail.

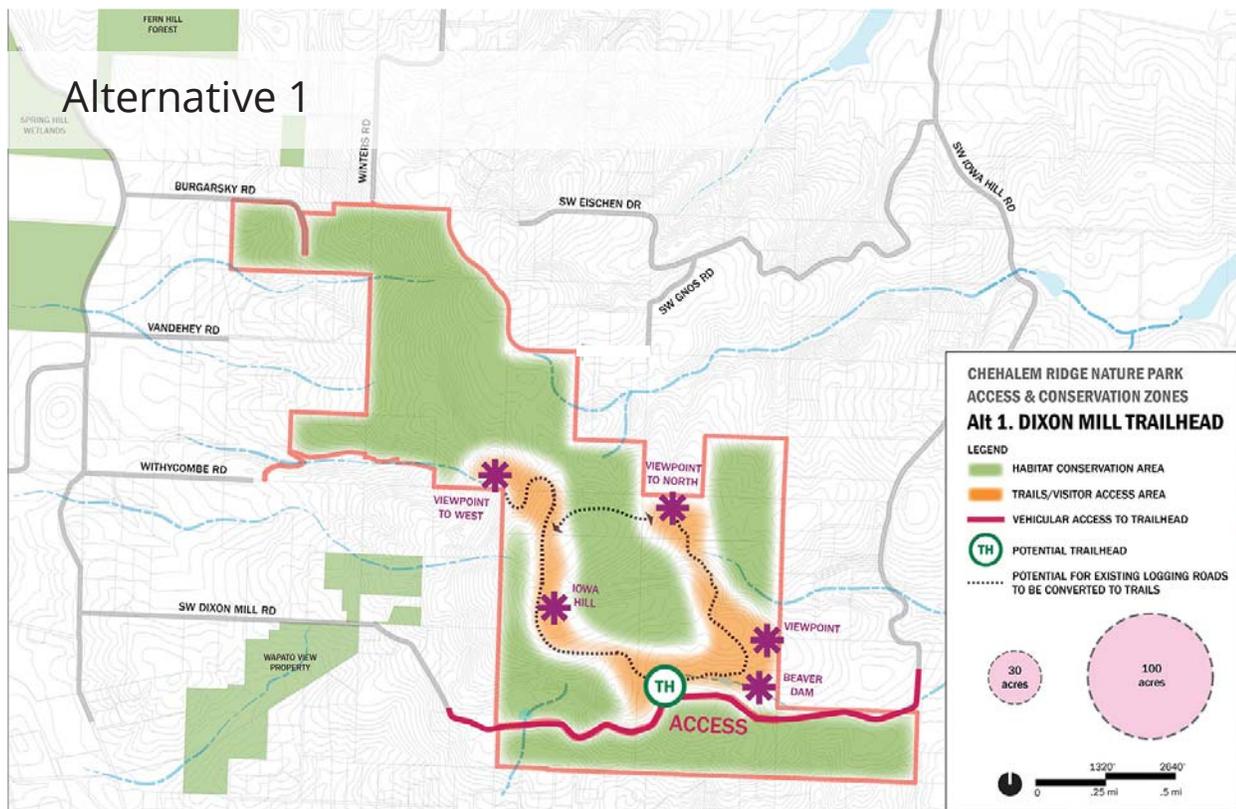


Figure B1: Process diagram showing Alternative 1, Dixon Mill Trailhead.

From this trailhead, a natural surface, multi-use trail (hikers, cyclists and equestrians) would begin and end, looping around the south of Chehalem Ridge and linking several site features, including Christensen Creek and several viewpoints to the east, north and west towards the Coast Range and Wapato Lake. A portion of this multi-use trail would have gentle grades and compacted crusher fine surface in order to be accommodating to visitors with a wide range of physical abilities. The trail would continue, linking the trailhead to a viewpoint at Iowa Hill. Near the trailhead, a pedestrian-only nature trail would loop along the southern fork of Christensen Creek to a viewpoint of a beaver dam, then switchback upslope to a viewpoint east to several volcanoes and reconnect to the multi-use trail.

Maintenance and emergency access would be provided to the site from the north at Southwest Winters Road and from the east at Southwest Gnos Road, using existing former logging roads to penetrate the site and link to the multi-use trail system and the Operations and Maintenance facility on Southwest Burgarsky Road.

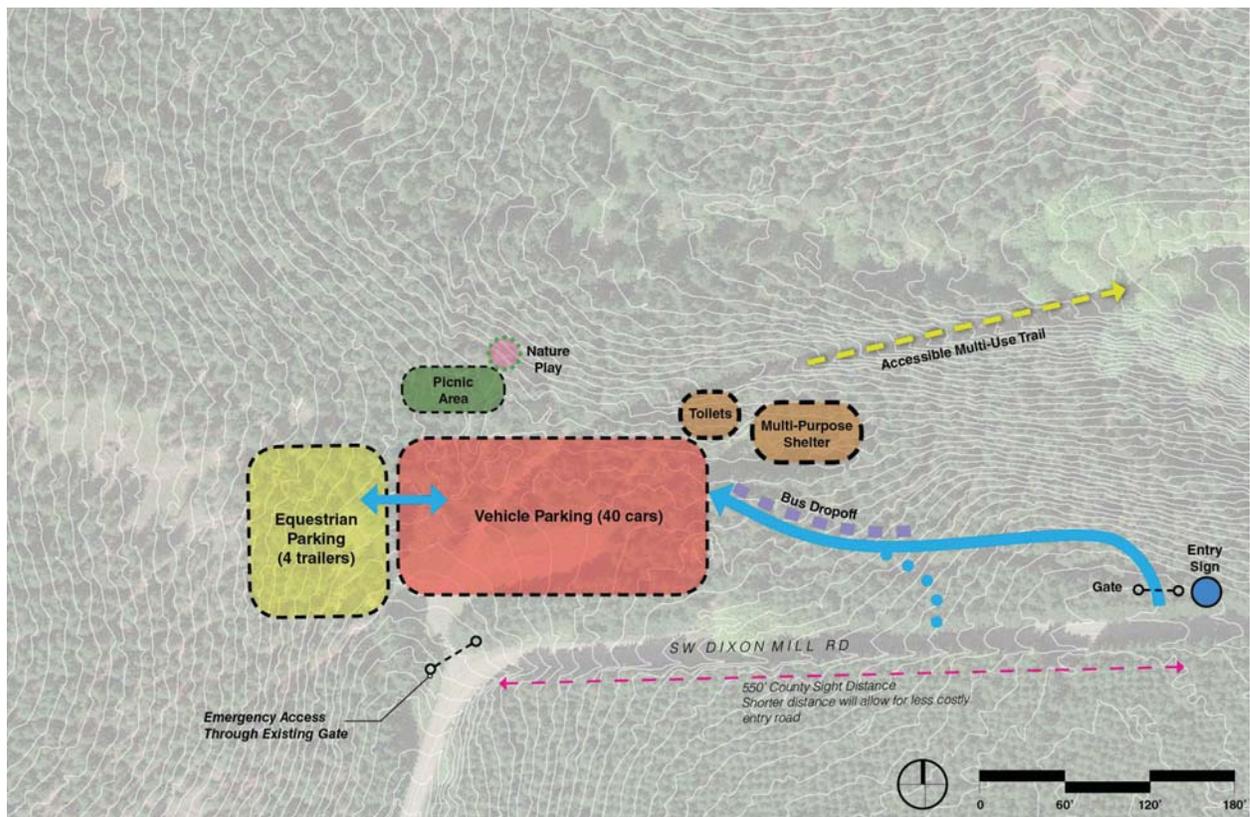


Figure B2: Diagram of potential features and amenities at the trailhead off Southwest Dixon Mill Road.

Appendix B: Plan Alternatives Evaluation

Alternative 2: Winters/Burgarsky Trailhead

This alternative concentrated access in the northern half of the site. Habitat protection and enhancement would be focused in the south part of Chehalem Ridge, although such activities would occur throughout the park. A primary trailhead was proposed on Southwest Burgarsky Road, next to the NW boundary of the park, but located to minimize disruption to existing residences. This trailhead would include a parking lot for up to 50 cars and an adjacent equestrian trailhead and trailer parking lot. A multi-purpose shelter, restrooms and picnic facilities would be arranged at the trailhead and a multi-use trail would begin from here, crossing the creek east of the trailhead and bypassing a proposed Operations and Maintenance facility at the end of Southwest Burgarsky Road.

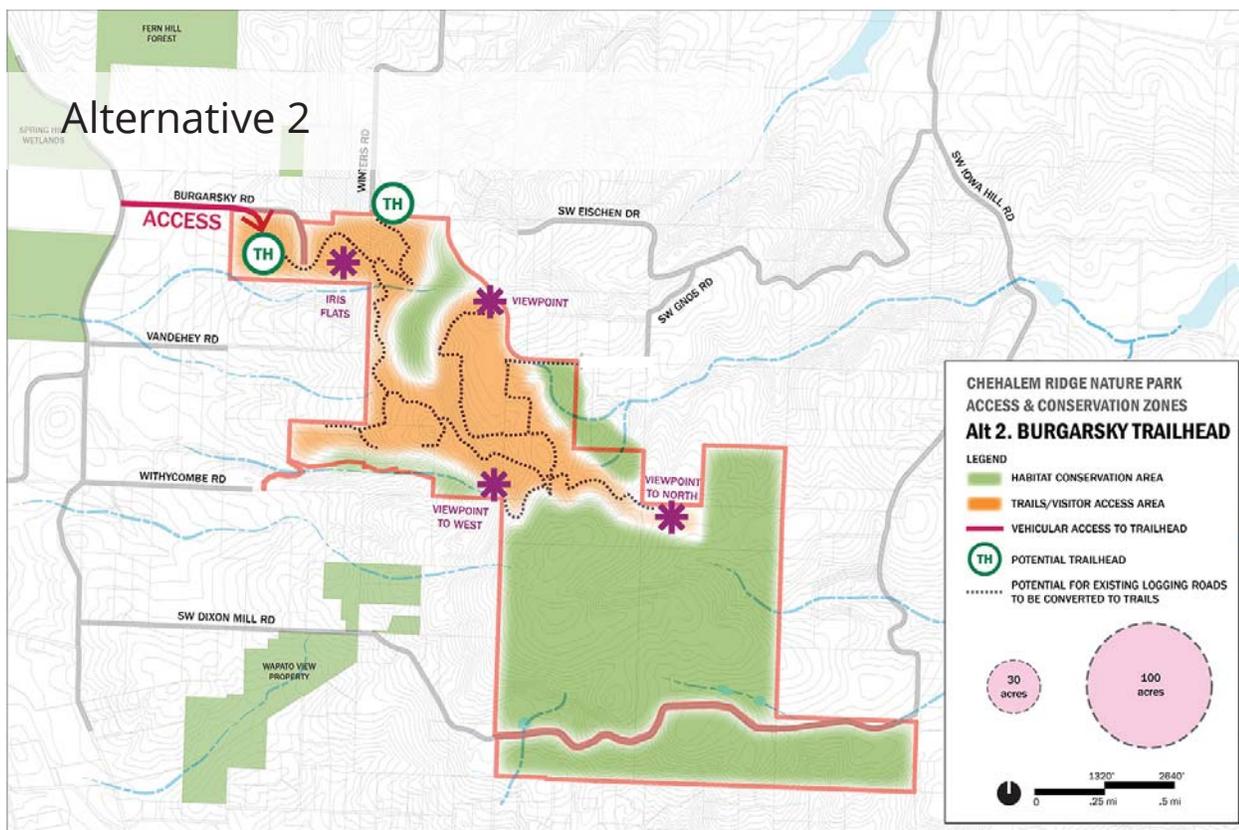


Figure B3: Process diagram showing Alternative 2, Burgarsky Trailhead.

A trailhead option was possible on the open slope west of the existing Metro-owned house at the end of Southwest Burgarsky. Access to the core of the Park from the trailhead described above was dependent on a trail bridge to be built over the unnamed drainage that flows southwest near that trailhead. The roadway on Southwest Burgarsky narrows east of this trailhead and may require widening and creek crossing improvements if the optional trailhead was pursued. Ultimately the trailhead location in future phases may be influenced by the comparative costs of a trail bridge (estimated at roughly \$100,000) versus roadway improvements (estimated at roughly \$200,000 for a gravel road, not including regular watering costs).

A multi-use trail would climb uphill from either of these trailheads, bypassing the proposed Operations and Maintenance facility and looping through the north half of Chehalem, potentially re-using an existing former logging road on the west edge of the park. This trail would climb uphill to a new viewpoint to the west and join a ridgeline trail, with a spur south to Iowa Hill. A nature trail loop was proposed east of this spur to provide a wilder experience and access to Christensen Creek and viewpoints north. This ridgeline trail would also connect to the south end of Southwest Winters Road, which would not be improved with parking but would provide access for the Park's neighbors on foot, bike or on horse. Maintenance and emergency access would be provided to the site from the east at Southwest Gnos Road, using existing former logging roads to penetrate the site and link to the multi-use trail system.

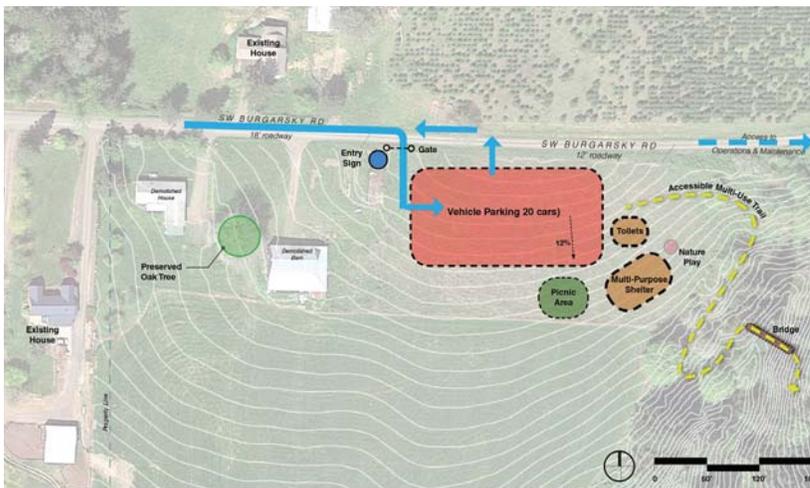


Figure B4: Diagram of trailhead option along Burgarsky Road showing potential amenities and features.

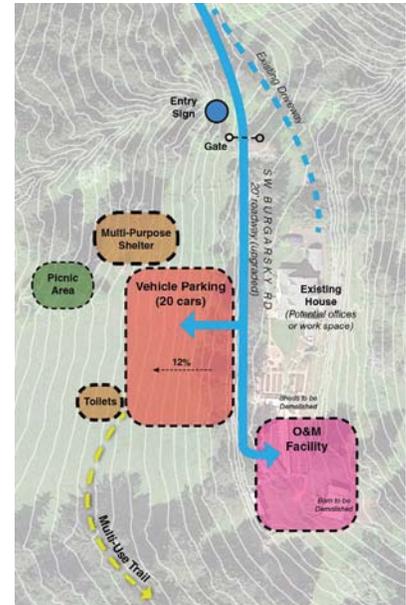


Figure B5: Diagram of trailhead option for the end of Burgarsky Road showing potential features and amenities.

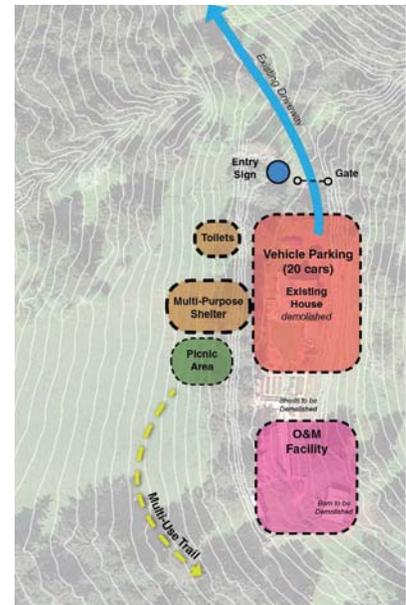


Figure B6: Diagram of trailhead option for the end of Burgarsky Road showing potential features and amenities.

Appendix B: Plan Alternatives Evaluation

Alternative 3: Ridgeline Trail

This alternative proposed public access from the north and south, with a multi-use trail extending the length of the park, roughly following Chehalem Ridge itself, honoring the name of the park. Habitat protection and enhancement would be focused on the western slopes of the Park, although such activities would occur throughout the park.

A primary trailhead was proposed off Southwest Dixon Mill Road, with a short access drive into the site, roughly 550' east from the current gate on Southwest Dixon Mill. This trailhead, a smaller scale version of the one proposed for Alternative 1, would accommodate 30 cars, and include a bus drop-off for groups and students. An equestrian trailhead and parking lot was also proposed in this alternative and this would likely be adjacent to the vehicular parking. A multi-purpose shelter for use by groups was proposed at the trailhead, as were restrooms and a picnic area, which may include further shelter(s). In the vicinity of this trailhead, nature play facilities were proposed, either in one concentrated location or dispersed along a trail.

From this trailhead, a multi-use trail (hikers, cyclists and equestrians) would extend north, linking several site features and viewpoints to the east, north and west towards the Coast Range and Wapato Lake. A loop accommodating to visitors with a wide range of physical abilities would include a portion of this

“Alternative 3 does not focus use on either the north or south halves of the CRNP to avoid compromising habitat conservation with a future north-south connector trail. It is better to plan for site wide access from the beginning to be able to protect large patches of habitat and regional connectivity.”

Jonathan Soll, Metro

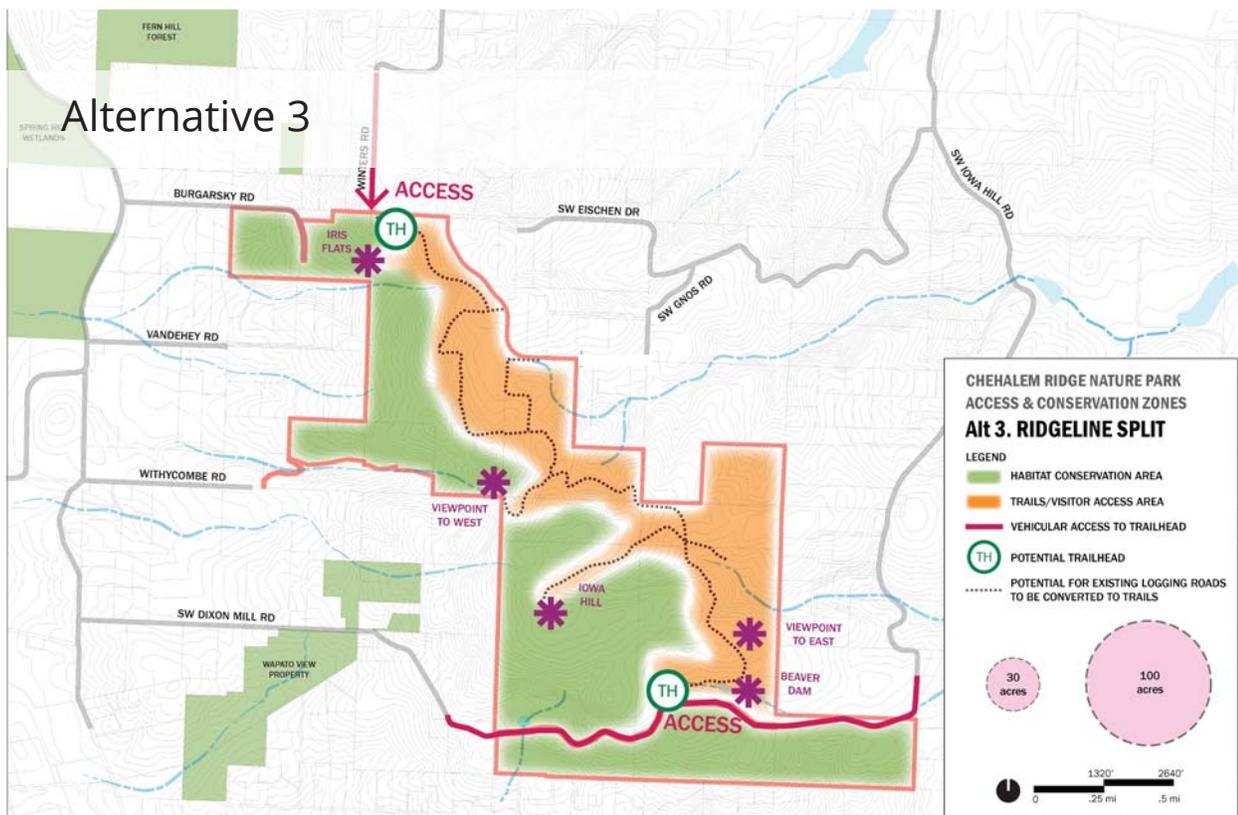


Figure B7: Process diagram showing Alternative 3, Ridgeline Split.

multi-use trail and a nature trail loop to the east that provided views to the east and access to a beaver activity area viewpoint.

North of this loop, the multi-use trail would descend to cross Christensen Creek. A spur loop trail to the Southwest would link to a viewpoint at Iowa Hill. Midway through the site, the main trail would split, with one leg along the west edge of the ridge at the top of a steep slope, providing views to the west. North of a proposed viewpoint, the trail would be accommodating to visitors with a wide range of physical abilities. The eastern leg of this ridgeline trail would extend to Spring Hill and then after connecting with the western leg, descend to a secondary trailhead at the north edge of the park.

This secondary trailhead could take two forms. Southwest Winters Road is paved for much of its length, beginning at an intersection with Southwest Blooming Fern Hill Road. The Southwest Blooming Fern Hill Road intersection with Southwest Winters Road has limited sight distances which may pose safety challenges. As Southwest Winters nears Chehalem Ridge, it becomes a narrow gravel road that appears to be more of a residential driveway (although it is public right-of-way). In one option, this roadway could be extended into the park, with up to 15 parallel parking spaces on the uphill side, similar to many simple roadside parking arrangements at US Forest Service trailheads in Oregon. This option proposed a vehicular turnaround and vault toilet at the end of the access road.

Another option proposed that a new road be built from the south end of Southwest Winters Road along the northern boundary of the Park, along an existing unimproved right-of-way. This road would be a steep climb and involve the expense of permitting and building an entirely new road (versus using the roadbed of a former logging road in the first option), although it would access a flatter area in the northeast part of the Park and allow for a small 20-car surface parking lot, also with a restroom.

Maintenance and emergency access would be provided to the site from the east at Southwest Gnos Road, and from the north at the Operations and Maintenance facility on Southwest Burgarsky Road, using existing former logging roads to penetrate the site and link to the multi-use trail system.

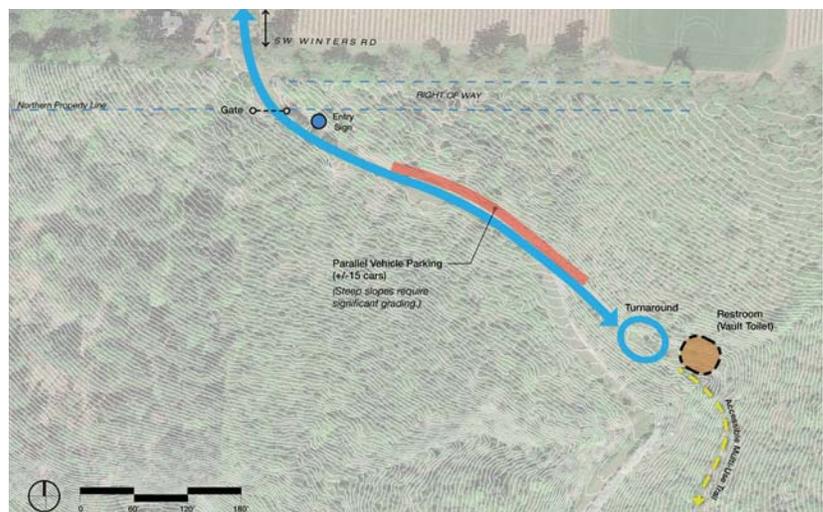


Figure B8: Trailhead option at southern extension of Winters Road



CHEHALEM RIDGE NATURE PARK MASTER PLAN

Stakeholder Input

Web Intake, Phone Calls, Chicas Tour, Community Event #1

Comment Period: Project Initiation – Visioning (December 2015 – March 2016)

Public input is an essential component of the master plan process. Throughout the Chehalem Ridge Nature Park planning effort, a variety of opportunities have been made for the public to contribute information, share ideas, evaluate options, express concerns and ask questions.

Desired Uses

- Strong support for a variety of trails at Chehalem was heard.
- Trails for walking, hiking, running, and quietly enjoying nature.
- Trails for riding horses. Support facilities such as separated (single use) trails, dedicated parking facilities and natural surface paths emphasized.
- Mountain biking facilities.
- Accessible trails to meet a wide range of abilities. A firm, well compacted surface is important to those with limited mobility.
- Access to accommodate visitors. Accommodations for vehicles (parking) and bicycle access.
- Camping including mention of cabins, yurts and rustic facilities.
- The site is bound to become a bird watching hotspot for the region.
- A place for star viewing, away from city lights.
- Viewpoints.
- Support amenities: shelters, picnic areas, benches, trash receptacles, drinking fountain, restrooms.
- Bi- or multi-lingual information.
- A play area for kids.
- Dog walking.
- Quiet, peaceful areas for meditating and relaxing.
- Volunteer offers for restoration and trail building work.

Education Interests

- Opportunities to learn about the plants, wildlife and restoration activities.

Appendix C: Public Input Summary

- Group areas for tours, schools and educational activities.
- Accommodations for buses.
- Outdoor school.
- Guided walks led by naturalists.
- Environmental education classroom or facility.
- A partner supported research facility.

Conservation Interests

- Multiple positive comments about the active restoration of the forest and streams.
- Keep the park as natural as possible with a minimum of development.
- Restore the site to native habitat.
- Minimize development of the site. Restore the area for the benefit of the wildlife.
- A very special and sacred place to visit. Visitors need to respect the site and Metro needs to actively manage it in order to keep environmental impacts to a minimum.

Questions and Concerns

- What is a nature park?
- Can we access the site now?
- Will there be tours and how can I sign up?
- Where will vehicle access occur?
- How will user conflicts be addressed?
- Will there be a place for walking dogs? How will the no dogs policy be maintained?
- The nature park will be adjacent to agricultural fields. How will crop lands be protected?
- Will adjacent property owners continue to be able to access the property?
- How will increased use affect medical calls and incidents of fire and accidents?
- How will crime and fires be controlled?
- Who will patrol the site?
- How is the work funded?

Appendix C: Public Input Summary

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Portland, OR 97232-2736

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Metro | Memo

CHEHALEM RIDGE NATURE PARK ACCESS PLAN

Stakeholder Input Summary #2

Comment Period: Existing Conditions, Opportunities, Challenges and Needs
(April - June 2016)

Public input is an essential component of the access plan process. Throughout the Chehalem Ridge Nature Park planning effort, the project team has and will continue to create a variety of opportunities for the public and stakeholders to contribute information, share ideas, evaluate options, express concerns and ask questions. During this most recent comment period, participants were encouraged to comment on preferred future activities at Chehalem, as well as site opportunities and challenges.

Information and Input Opportunities

- 4/21: Presentation to Citizen Participation Organization 10, JBWP, Hillsboro
- 4/24: Information table, Latino Festival, Hillsboro
- 4/29: 6/10: On-Line Public Survey
- 4/30: Information table at the Dia de los ninos event, Cornelius
- 5/3: Committee for Citizen Involvement presentation, Forest Grove
- 5/11: Community Open House #2a, Spanish, Forest Grove High School
- 5/17: Community Open House #2b, English, Forest Grove High School
- 5/18: Presentation to Citizen Participation Organization 15
- 5/26: Farmer conversation with NRCS and TSWCD
- 6/1: Neighbor Conversation, Gaston High School
- 6/4: Table at State Parks Day and Stub Fest at Stub Stewart
- 6/8: Table at Adelante Mujeres farmers market, Forest Grove

Appendix C: Public Input Summary

Survey Responses

2,237 Surveys Completed

2,162 in English

75 in Spanish

The project team collected survey data from the public during from late April to early June 2016. The survey focused on people's interests in the outdoors, how often they visit natural areas, the benefits they perceive from visiting natural areas as well as challenges they have in reaching them.

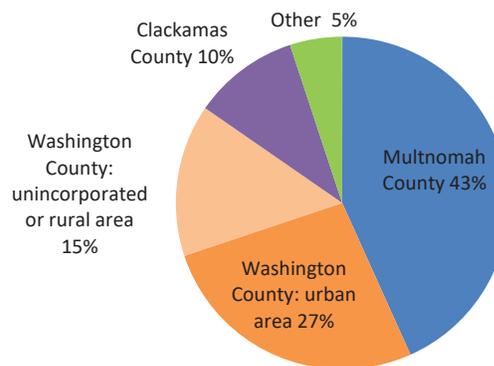
A total of 2,237 surveys were completed either on-line or in writing. 2,126 participants completed English language surveys and 75 participants completed Spanish-language surveys.

43% of respondents hailed from Multnomah County and 42% from Washington County (27% from Washington County's urban area, and 15% from unincorporated or rural Washington County). 10% of participants were from Clackamas County and 5% identified themselves as being from other areas.

Metro has a responsibility to ensure outreach and engagement in planning opportunities with underserved communities. Of the surveys received, 10% or 231 respondents, identified as a Person of Color (PoC).

41% of respondents were female, 31% were male, 27% preferred not to answer and 1% were transgender male, less than 1% were transgender female.

Where Do You Live?



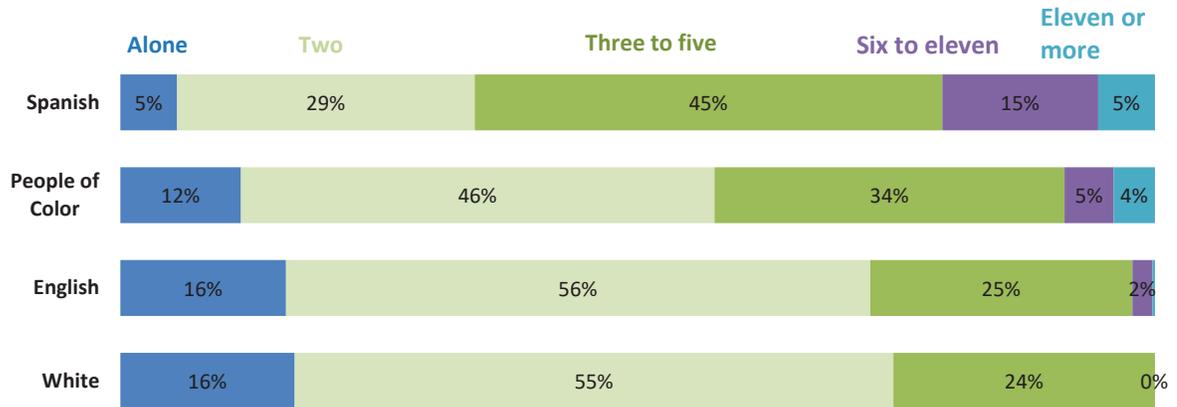
Number in Group

The number of people going in a group when visiting natural areas varied, English speakers (56%) were most likely to go to natural areas with themselves and one other person, and the highest percentage of Spanish speakers, at 45% were most likely to go with three to five people. People of color were also most likely to go with one other person, at 46%.

Spanish speakers were least likely to go alone, at 5%, in contrast to English speakers at 16% and people of color at 12%. Spanish speakers (15%) were the only group to have more than 5% of people going outdoors with six to 11 people.

Appendix C: Public Input Summary

When you visit a natural area or nature park, how many people are typically in your group?



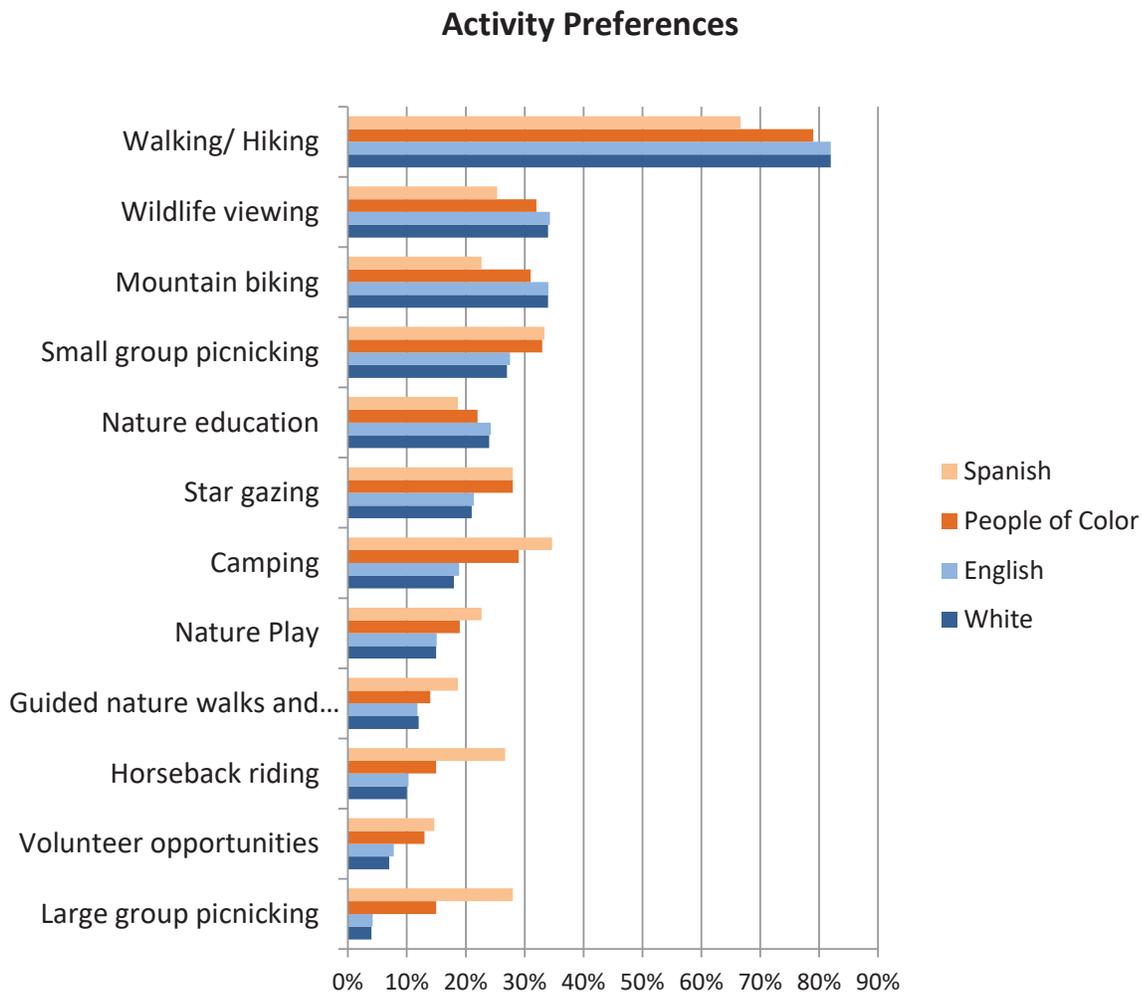
Activities

Walking and hiking were preferred activities in the outdoors across all groups, with 82% of English speakers listing it as preferred, 67% of Spanish speakers and 79% of people of color.

Spanish speakers and people of color were more in favor of camping, at 35% and 29%, in contrast to 19% of English speakers that selected it as a preferred activity. Spanish speakers also were interested in horseback riding, 27%, and large group camping, 28%, at nearly double the rate of both other groups.

Spanish speakers and people of color were more likely to be interested in nature play, volunteer activities, guided walks and star-gazing.

Appendix C: Public Input Summary



Across groups, the top educational topic people would like to learn about at Chehalem Ridge was local wildlife, with more than 50% of each group selecting this. (52% English, 53% Spanish, 50% people of color)

Concerns and Needs

Trash, noise and vandalism was a top concern of all groups about public access at Chehalem Ridge. The survey asked about the most important things metro can provide to help participants enjoy and appreciate nature. The top two responses across groups were public access to more parks and natural areas and clean restroom facilities.

Community Conversations and Events

Conversations with members of the public, written-in comments on the surveys, as well as conversations with partners and key stakeholders yielded the following information and quotes around access, site opportunities, and site challenges.

Appendix C: Public Input Summary

Site Opportunities

- Stakeholders and community members are excited about access opportunities at Chehalem. Trails for walking and hiking are a top priority.
- Community members expressed enthusiasm for site restoration and long term conservation.
- The more kids we get outdoors in natural places, the better protected those places will be in the long term.
- I hope the trails are properly designed so that a variety of users can share the park with minimal impacts to the natural environment.
- Consider quiet areas for nature study and appreciation.
- Please provide infrastructure (shelters, equipment storage, etc,) for metro and others to provide nature education programs.
- Northwest Trails Alliance (NWTa) and Oregon Equestrian Trails (OET) have capacity to build and maintain trails. You should coordinate with them.

Site Challenges

- Existing logging roads are not ideal for trail use. They don't take into consideration the visitor experience in terms of views or grade.
- Topography limits opportunities in the northern portion of the site. This would make it more challenging to accommodate school buses and vehicles with horse trailers.
- The site might not be large enough to attract riders from elsewhere. It is not a full day's worth of riding. Horses ride at a pace of 3 mph. Equestrians like to ride anywhere from 1-3 hours at a time if they are going to go to the effort of trailering a horse.
- Accommodating multiple types of users could lead to conflicts. Proper trail design and etiquette signs need to be used.

Access

Public rights-of-way leading to the Chehalem Ridge property create potential opportunities for site access points along with a trailhead to welcome and orient visitors. Based on an initial assessment of the options, three roads are being considered for public access: Winters, Burgarsky and Dixon-Mill.

- Winters Road: Area neighbors do not believe the rural character of Winters is compatible with increased traffic associated with a public park.
- Burgarsky: One household stated opposition to Burgarsky being used as a public access point. The limited roadway width may present challenges with emergency response vehicles accessing homes along Burgarsky.
- Dixon-Mill: Some community members living near the south end of Chehalem would prefer that Dixon-Mill not become a public access point. Residents expressed concern that roadway improvements would lead to increased speeds and traffic volume as well as the frequency of through traffic. Neighbors also expressed concerns that existing roadway conditions and maintenance are not appropriate for additional traffic related to the future park.

General Comments and Questions

- The more kids we get outdoors in natural places, the better protected those places will be in the long term.

Appendix C: Public Input Summary

- Is access being considered for those with physical impairments? It would be wonderful to have relatively flat wheelchair trails with different options for length.
- How would the decision to pave an existing roadway be made?
- Chehalem Ridge is a great opportunity to provide space for some activities not always seen in your parks like equestrian and bike trails and leashed dog access.
- Thank you for allowing us to enjoy nature, wildlife, and the tranquility a no dogs policy ensures!
- Involve all segments of the public, including low income and different ethnicities in a meaningful planning effort and show the results in the completed plan.
- Getting out in nature is a healing experience, particularly for those who can't afford other activities. Entrance fees discourage usage by those who may need it most.
- Giving access to close parks where people can do things during weekdays is key! Thank you!

Conclusions

How we're similar

Overall, survey data and conversations with different stakeholder groups, partners, and community members indicate interest and support for Chehalem Ridge. There is strong alignment in interests between groups of people, regardless of race, language or ethnicity when it comes to preference for hiking and walking in nature, closely followed by relaxing and rejuvenating in nature. Learning interests at Chehalem focused on local wildlife, habitat and the environment also align. All groups showed similarity in that most respondents spend time in nature at least once a month. Lastly, the majority of respondents believe it is important for Metro to provide more public access to nature.

How we're different

Spanish speakers and people of color indicate different barriers to accessing nature than the wider English-speaking public. These include, for example, not having adequate transportation to reach nature, or not feeling welcome or safe in natural areas.

Spanish speakers and people of color demonstrated the importance for their communities of social gatherings and time with friends and family in nature rather than going outside just for physical exercise or to be in nature for its own sake as English speakers preferred more strongly. Spanish speakers and people of color also indicated a stronger preference for more activities for children and families as well as accessible places for people of all abilities.

Next Steps

Continued commitment to increasing participation in communities of color and the Spanish-speaking community in western Washington County remain a priority for the Chehalem Ridge Nature Park Access Plan process. Diversity, equity and inclusion are critical to ensuring the development of a new nature park that is truly accessible to all communities and cultures. During the course of reviewing open comments in the survey, a handful of people questioned the collection of demographic data regarding race or ethnicity. The discrepancies in how people access nature and feel welcome in nature based on the data received highlights the need to know the people Metro serves, as well as clearly understand their specific needs. Metro and the project team aim to ensure a process that moves to reduce barriers in accessibility to nature so all people are able to access, enjoy, participate in and feel welcome in nature-related activities.

Appendix C: Public Input Summary

Memo



Date: Oct. 21st, 2017
To: Chehalem Ridge Core Team
From: Karen Vitkay, Project Manager
Subject: CRNP Input Summary #3

Introduction

Between Sept. 1 and Sept. 26, 2016, a public survey was conducted to inform the current alternatives phase of the planning project. The survey was made available to community members through various channels including both digitally and on paper. A total of 2,343 surveys were completed with 103 of those surveys being completed in Spanish.

Digital dispersal took place through the Opt In online opinion panel and through paid promotions using Metro's Facebook page and Centro Cultural's Facebook page. The survey was delivered in paper at the Sept. 8 community event in Forest Grove, and through Centro Cultural at various events during the month of September.

The survey included five questions, asking for people's preference on the following:

- Preferred route of travel to Chehalem Ridge (a short and direct route, or a longer more scenic route)
- Preferred type of trail opportunities (loop or linear)
- Preferred destinations to experience (scenic view, diverse habitat, a wetland or waterway, or the highest elevation)
- Preferred trail type (multi-use and walking only trails, or only multi-use trails which would be inclusive of hiking, biking and horseback riding)
- Other comments

2,343 surveys
completed
10% by people
of color
4.4% in Spanish

Methodology

Survey data was analyzed with three organizing principles:

- Data question by race (person of color or white alone)
- Person of color was defined as anyone who selected any race other than white or more than one race, inclusive of white if selected.
- White alone was selected if only white was selected in the race category
- Data question by language survey was taken in (Spanish or English)
- Data question by survey type (web, in-person at Centro, in-person at community event)

Appendix C: Public Input Summary

There was one additional analysis conducted for the question related to the type of route, which looked at the preference of route type by Washington County urban or rural resident dwellers.

Data was viewed as percentages within race, language and survey type, rather than a total count of each response in order to mitigate the factor that most survey responses were in English and taken by people who identified as white alone and through the self-selected Opt In online opinion panel, which does not reflect the diversity of viewpoints needed for decision-making at Chehalem Ridge Nature Park.

Demographics

Race/Ethnicity

Overall, 10% of respondents were people of color, 79% were white alone, and 11% preferred not to disclose their racial or ethnic identity.

Language

While survey respondents were not asked about their primary language, 103 surveys or 4.4 per cent were completed in Spanish.

County

43% of respondents were from Multnomah County, 30% were from Washington County urban areas and 13% from Washington County rural areas, with a combined total of 43%, matching the Multnomah County responses. 10% were from Clackamas County and 4% from other areas.

Of all respondents, 45% of who identified as people of color were from Washington County urban areas and 90% of Spanish speakers were from Washington County urban areas.

Gender

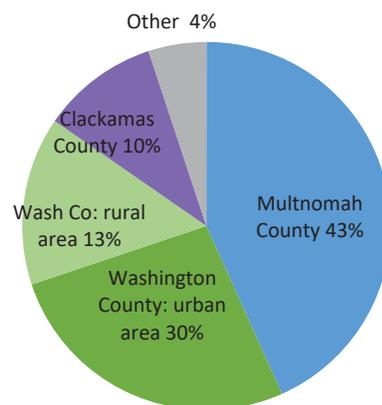
52% of respondents were female, 43% were male, 5% preferred not to say, and less than 1% of respondents were transgender female or transgender male.

Income

Most survey respondents' households earned more than \$50,000/year, with the highest amount of respondents' households earning between \$100,000 and \$150,000 a year.

When reviewed by people of color vs. white, Spanish speakers and people of color were more represented in households making less than \$75,000/year while English speakers and whites represented more households making over \$75,000/year.

Where Participants Live



Appendix C: Public Input Summary

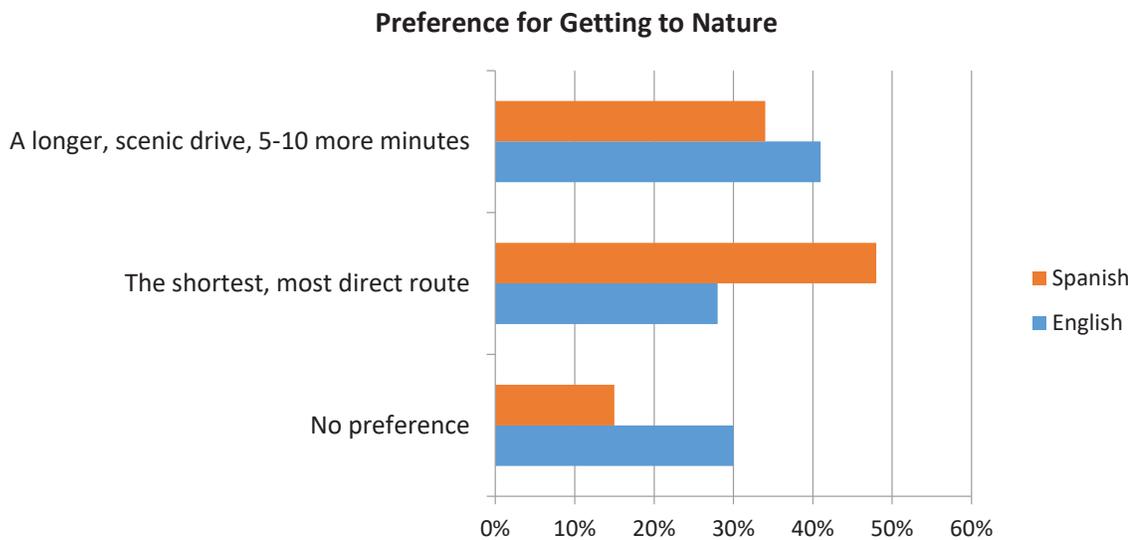
Analysis

Getting to Nature: Direct or Scenic Route?

Rural and urban Washington County residents were fairly equal in their opinions related to route access to Chehalem Ridge. Slightly more than 37% of both types preferred a longer and more scenic drive to the new nature park, adding 5-10 minutes to their drive. About 30% of rural dwellers preferred the shortest and most direct route with about 32% of urban dwellers citing the same choice. About 32% of rural and 28% of urban dwellers had no preference.

People of color preferred the shortest and most direct route and the longer and more scenic route equally, at about 38%. Whites alone more strongly preferred the longer and more scenic route at 42%, and the short and direct route at 28%.

Spanish speakers preferred the shortest and most direct route at 48% with English speakers preferred the longer and more scenic route at 41%. Spanish speakers preferred the longer route at 34%, English speakers preferred the shorter at 28%.



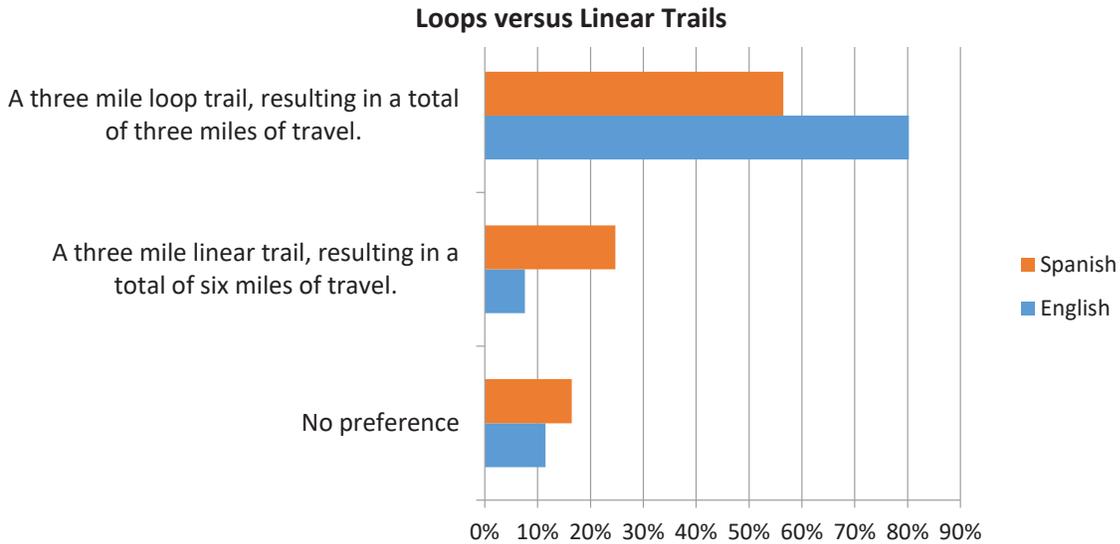
Route by Survey type (Online v. Open House v. Centro Cultural)

Centro Cultural survey takers overwhelmingly selected the shortest and most direct route, at 75%, with only 6% choosing the longer route. Online survey takers preferred the longer route at 41%, and the shorter route at 29%. Open house respondents preferred the longer route at 35% and the shorter at 18%. Open house respondents were the most ambiguous with 47% not caring either way.

Trails: Loops versus Linear?

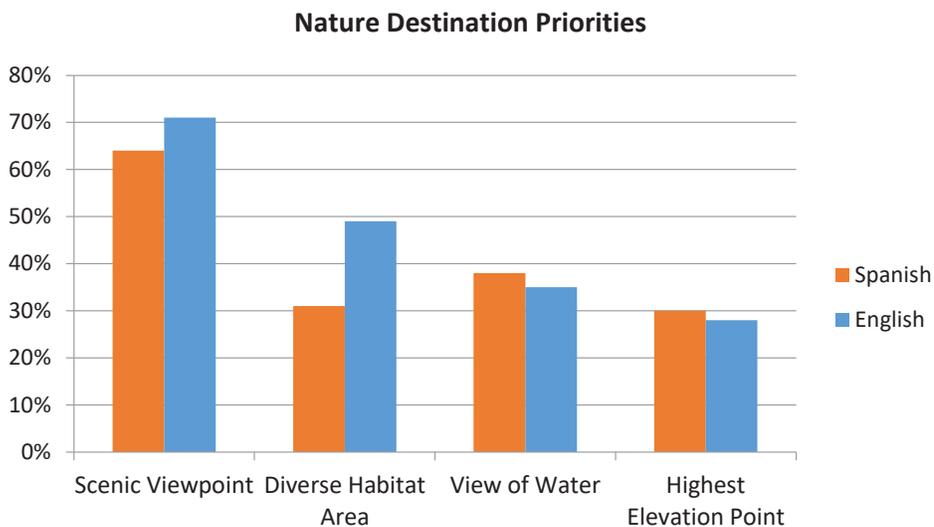
Some Spanish speakers prefer a linear trail, at 25%, though the majority of both language groups still prefer a loop trail system (56% Spanish and 80% English, respectively).

Appendix C: Public Input Summary



Destination Priorities

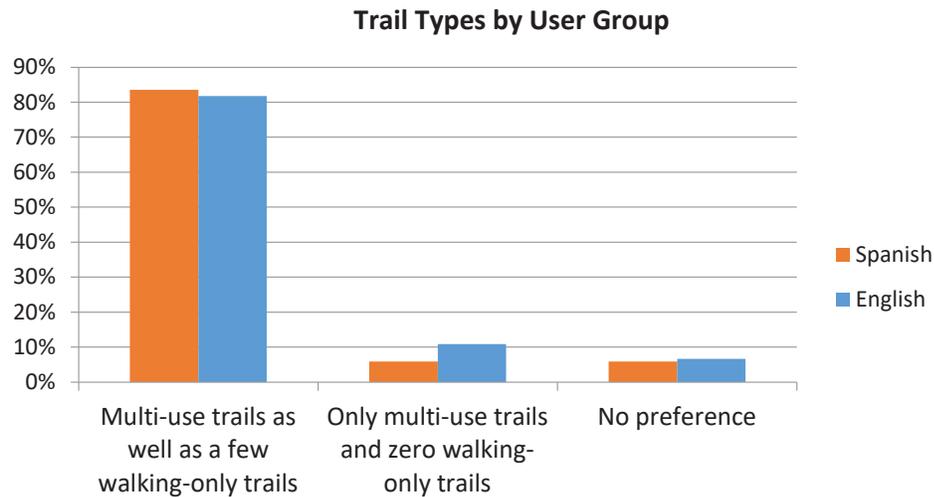
Across all race, language and survey types, the scenic viewpoint was far and away the preferred destination type for experiences. Diverse habitat and wetland or waterway were roughly tied in 2nd and 3rd place for destination choice, with the highest elevation point most often selected as the last preference for survey takers.



Trails: Type by User Group

Across all race, language and survey types, the multi-use trail with a few walking trails was the overwhelming preferred selection with 70% - 80% or more supporting it over multi-use trails alone per group.

Appendix C: Public Input Summary



Open Comments

Comments from the Spanish community emphasized the importance of **gathering places, places to eat, security** and most importantly, **places for kids to play, exercise and cool off during the summer**.

Examples (translated from Spanish) are:

- *Something special for the kids or adults with disabilities.*
- *Security is very important for visitors, also public restrooms.*
- *A fountain or place to refresh in the summer.*
- *Games for little kids and big kids that encourage exercise and having fun.*
- *Observe wild animals in their native habitat.*
- *That it has places like first aid and emergency staff or security. Or a number to call so you feel safe.*
- *A place for all ages that is ecological and preserves nature.*
- *Will the park be free? I think this is an excellent idea in our region, there is nothing like it near and we have to go to other places to find something like it with our family, thank you.*
- *An area for rest and games for kids and places to eat.*

Comments for the English-speaking community emphasized wanting to **hike or walk with their dogs** at Chehalem, **and both advocacy for more bike-specific trails** as well as comments around **not wanting to mix bikes, pedestrians and horses on the same trail**. There are also mentions of **protecting habitat, accessible trails that meet Americans with Disabilities Act standards, safety lighting, interpretive and bilingual signage** and **public restroom facilities**. A few examples are:

- *I hope that leashed dogs will be allowed on the trails!*
- *NO MULTI-USE TRAILS!!! They don't work and ruin a great hiking experience. Stub Stewart Park is nearby. Why the need to offer horseback riding and mountain biking? Especially with such a small trail system...*
- *Hopefully, some areas will be wheelchair accessible.*

Appendix C: Public Input Summary

- *I would like to see: Picnic tables and benches. Adequate parking for horse trailers. Horse & hiking trails separate from bicyclists. Bathrooms. Camping areas, including corrals for horse camping. Potable water. Sewer dump site. Signage on trails.*
- *All signage in Spanish as well as English*
- *DOGS ON LEASH ONLY. PREFERABLY NO DOGS.*
- *Flushing toilets, picnic tables*
- *Having bicycles and horses on a trail with hikers makes a hike really uncomfortable for hikers with small children, the elderly and for those who choose to enjoy the scenery as they walk, instead of just walk fast.*
- *I'd really like to see more single-track / unpaved biking trails.*
- *It should have at least one mile of wheelchair accessible trails that are not shared with cyclists or horses.*
- *Optimize the park for wildlife, not just people. Keep much of the park off limits to people so that wildlife can be left alone.*
- *I ranked diverse habitat last because I think those areas should be as isolated as possible in order to protect them.*

Conclusions

Breaking down data along lines of race, language and survey type provide insight into details based on specific demographics that assist with decision-making and ensuring that the park is addressing needs of a wider section of the community. With Opt In panel respondents, participants are typically higher paid, white, and residents of Multnomah County. Approaching analysis as we have equalizes the weight of responses through percentages rather than a count of all responses (popularity) to ensure that we are able to hear from the diverse perspectives of the communities we serve and continue to try to serve in more meaningful ways.

This survey data illustrates a number of commonalities -an overall preference for loop trails, for example as well as some differences, like how Spanish speakers prefer a more direct route to the park rather than a longer and more scenic route. Being able to review open comments also shows a different thread of focus. English speakers hone in on dogs, bikes, the environment and potential user conflicts, while Spanish speakers hone in on spaces for children and family, and ensuring there are places to gather as well being safe in nature. The master plan will strive to meet a majority of needs as best we can so that all people get something they need. This will help ensure the creation of a park that meets its highest and best purpose: truly being a place that everyone can enjoy and feel welcome, or *que son bienvenidos*.

Appendix C: Public Input Summary

Memo



Date: March 7, 2017
To: Chehalem Ridge Core Team
From: Karen Vitkay, Project Manager
Subject: CRNP Community Input Summary #4

Introduction

A survey was conducted between January 5 and February 28, 2017 to inform the Chehalem Ridge Nature Park planning process. Elements of the recommended plan were shared and participants were asked to give feedback on their preferences and priorities for the new nature park. 988 surveys total were completed with 9% of respondents identifying as being a person of color. 3% of surveys were completed in Spanish.

988 surveys
completed
9% by people of
color
3% in Spanish

Community members were invited to take a hard copy version of the survey in Spanish or English at community meetings held on January 5th in Cornelius and February 16th in Forest Grove. The survey opportunity was also distributed via the Opt In Community Panel. Digital promotion to Washington County zip codes near Chehalem Ridge also occurred through Facebook notifications.

The survey included five questions, asking for people's preference on the following:

- *Visitor arrival modes*
- *Shared versus single use trails*
- *Level of support for proposed trail types*
- *Community priorities for park amenities*
- *Expected visitation frequency*
- *Optional demographic questions*

Methodology

Data was viewed as percentages within language, rather than a total count of each response in order to mitigate the factor that most survey responses were in English and taken by people who identified as white alone and through the self-selected Opt In online opinion panel, which does not reflect the diversity of viewpoints needed for decision-making at Chehalem Ridge Nature Park.

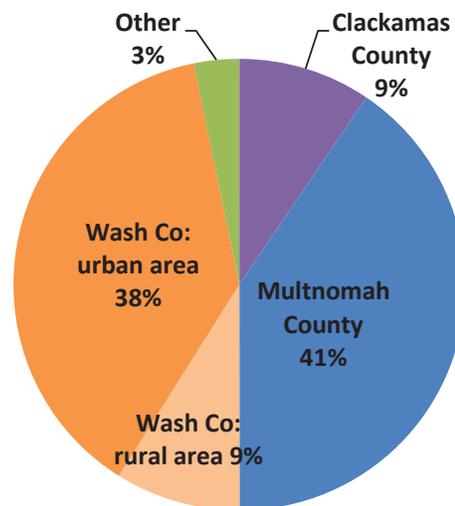
Appendix C: Public Input Summary

Demographics

Metro seeks to understand who participates in community engagement opportunities to ensure we are adequately reaching the diverse people and communities we serve. Optional questions were asked about where people live, gender, race/ethnicity, and income.

Location

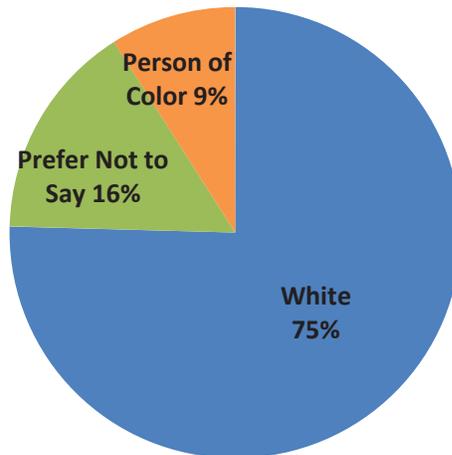
47% of respondents reported being from Washington County, with 38% being from urban areas and 9% from rural areas.



Race/Ethnicity

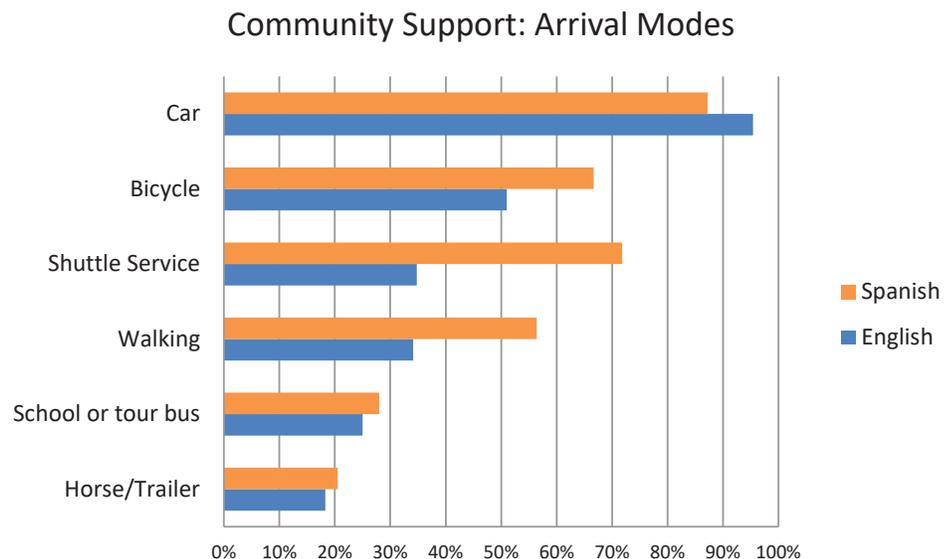
The majority of respondents identify as white (75%). 9% of participants identify as a person of color. 16% of people who took the survey preferred to not answer the question.

Appendix C: Public Input Summary



Travel Modes

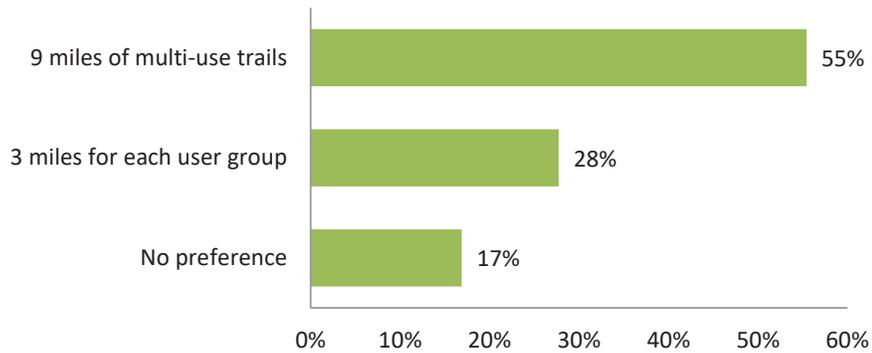
Question #1 asked about which modes of travel people supported for getting to the future nature park. While all respondents support the passenger vehicle as a travel mode, multi-modal opportunities were also found to be popular. While travel by bicycle and shuttle rank second and third for all groups, the opportunity for a shuttle service was found to be almost twice as important for Spanish speakers when compared with those who completed the survey in English.



Appendix C: Public Input Summary

Community Preference: Trail Length and Type

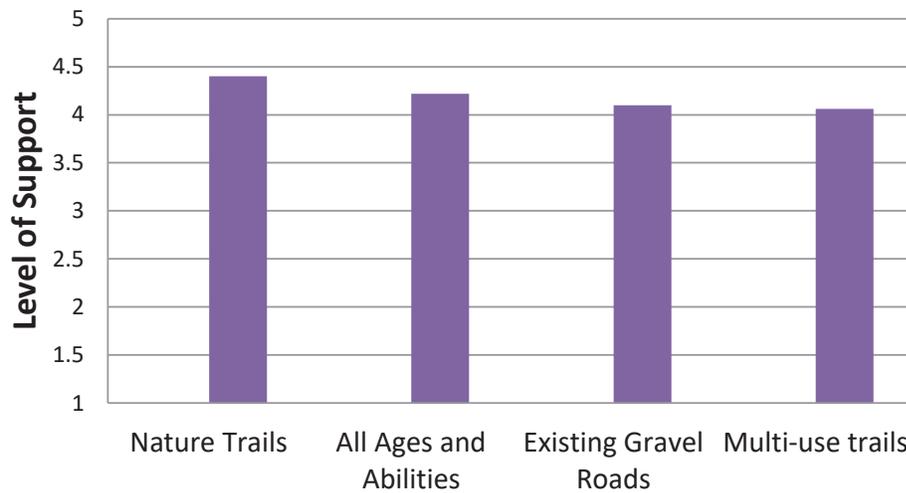
When given a choice, survey respondents preferred access to more miles of multi-use trails over fewer miles of single use trails by nearly 2:1. This was an interesting finding given that the most popular concern on the open comment section of the survey focused on potential conflicts between trail user groups (ie hikers, cyclists and equestrians). Negligible differences were found between those identifying as white and people of color.



Appendix C: Public Input Summary

Community Support: Trail Types

Four different trail experience opportunities are proposed for the Chehalem Ridge Nature Park. Survey respondents were asked to rate their level of support on a scale of 1 to 5 with a 1 indicating “do not support” and a 5 indicating an answer of “support.” All four trail types received a score of 4 or greater indicating a high level of support for each of the proposed trail types. The nature trails, open to those walking and hiking only, scored the highest. This is not surprising given the number of people throughout the region who rank hiking and walking as their favorite way to recreate. Negligible differences were found between those identifying as white and people of color.

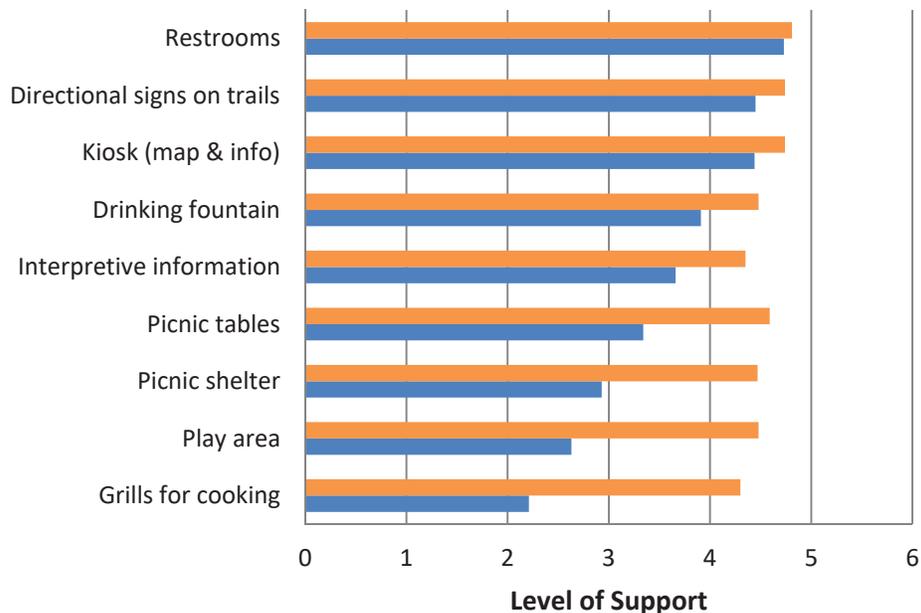


Community Priorities: Amenities

When asked to prioritize potential amenities for the site, all survey participants ranked restrooms, directional signs and maps as the three most important to their park experience. Noticeably, Spanish speakers also highly prioritize amenities such as picnic tables, play areas and grills for cooking.

Appendix C: Public Input Summary

Community Priorities: Amenities



Open Comments

Participants were also welcome to write in additional comments. We received over 300 written comments. They broadly fell into the following categories, which are listed from most common (top) to least common. Concerns about conflicts on trails between different user groups was the most frequent comment received.

Concern - Conflicts/Separation

Support - Nature/Conservation

Support - Dogs

Support - Bikes

Suggestion - Amenities

Support - Horses

Support - Hiking

Suggestion - Trail Design

Thanks/General Support

Safety

Support - ADA

Design Suggestion

Concern - Access

Concern - Dogs

Concern - Misc

Support - Multi-modal

Concern - Neighbor

Appendix C: Public Input Summary

Conclusions

While all community members support the single passenger vehicle as a common way to reach the park, multi-modal opportunities are also important. Strong support for biking, walking and shuttle service was found among those who completed the survey in Spanish. This is not surprising given that Spanish speakers were found to have greater transportation barriers than English speakers when trying to access nature.

While many community members have concerns about shared use trails, people prefer more shared use trails over limited lengths of single use trails.

Community members are generally in favor of the different types of trail opportunities being planned at Chehalem Ridge Nature Park.

Restrooms, wayfinding and information rank amongst the highest priorities for amenities at Chehalem across all groups. Spanish speakers were found to place almost as much value on items including picnic tables, shelters, play areas and grills for cooking.

Creating this access master plan required the commitment, support and involvement of many people who dedicated time and resources. The project team would like to thank the following individuals for their interest and involvement in developing a vision for Chehalem Ridge Nature Park.

Metro Council

Tom Hughes, Council President
Shirley Craddick, Council District 1
Carlotta Collette, Council District 2
Craig Dirksen, Council District 3
Kathryn Harrington, Council District 4
Sam Chase, Council District 5
Bob Stacey, Council District 6

Stakeholder Advisory Committee

Jazmine Tellez, Guadalupe Ochoa - Adelante Mujeres
Larz Stewart - Adventures without Limits
Tom Gamble - City of Forest Grove, Parks
Maria Caballero-Rubio, Juan Carlos González - Centro Cultural de Washington County
Carol Murdock, Laura Porter - Clean Water Services
Peggy Harris, - Citizen Participation Organization 15
Dan Eischen - adjacent neighbor and local farmer
Chuck Fondse - Northwest Trail Alliance
Shari Woodcock, Dennis Monson - Oregon Equestrian Trails, Valley View Riders
Lisa M. Sardinia, Stacey Halpern - Pacific University
Aaron Shaw - Tualatin Soil and Water Conservation District
Tom Nygren - Tualatin River Watershed Council
Jon Pampush - Tualatin River Keepers
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