

YAKIMA AREA ARBORETUM MASTER PLAN

March 2020

Prepared for the Yakima Area Arboretum





“ OUR MISSION IS TO INSPIRE PEOPLE OF ALL
AGES TO **DISCOVER AND CONNECT WITH NATURE**
THROUGH A DIVERSE COLLECTION OF TREES AND
SHRUBS HARDY TO THE INLAND NORTHWEST. ”

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PROJECT TEAM



MORSE
LANDSCAPE
ARCHITECTURE

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Executive Summary

The following Master Plan report outlines a roadmap for future development at the Yakima Area Arboretum. This vital community asset and iconic outdoor space has been developed in a thoughtful way since its founding in 1967, but a desire has been expressed by Board and community members in recent years to create a Master Plan document to ensure that future development would adhere to a set of principles agreed upon by the community and its stakeholders. This plan would guide future growth in a way that would follow a cohesive vision of aesthetic, environmental, fiscal, and programming considerations. A Request for Qualifications for consultants was released in August of 2018, and AHBL, Inc. was selected as the prime consultant. During the following 18 months, the consultant team engaged with staff, board members, a stakeholder group, and the wider community to develop this plan. The work generally occurred in three phases, with site analysis, public survey, and background research being followed by a planning process with the stakeholder group which then led to development of Master Plan recommendations.

The effort began with an investigation into the human and natural history of the site and its context within the surrounding area. Climate, soil, and zoning information was collected, and a sound study was conducted to assess the impacts of freeway noise on the Arboretum. The consultant team worked with staff to understand how the Arboretum interacts with nearby built and natural features such as Interstate 82, Buchanan Lake, the Yakima River, and the Yakima Greenway. A deep investigation was made into existing site elements and how they currently function and interact. Plant Collections, exhibit areas, parking, roadways, pedestrian circulation systems, maintenance functions, and programming were observed and analyzed. Five in-depth interviews were conducted with staff, board members, and one community member to better



understand the past, present, and future needs of the Arboretum. A public survey was prepared and sent out to the community, with 143 respondents providing valuable feedback. Case studies were conducted of similar facilities around the country to generate ideas and gain understanding of what might be possible here. These background findings were synthesized and presented as a basis for ongoing planning work.

A stakeholder group was empaneled that included staff, board members, and representatives from public agencies, neighboring properties, and community groups. This group met a total of three times. The group began by doing some visioning exercises to establish guiding principles that would set the tone for the remaining portions of the work. We then discussed the background work that had been done and presented and discussed case studies. Our next meeting involved the establishment of a list of proposed elements. We then began to look at different arrangements of these elements on the site, made adjustments based input and site discussions, and agreed upon a final layout. Additional input from staff, community members, and board members was incorporated into a final master plan graphic and a list of descriptions of both new elements and improvements to existing elements. The plan was presented to the Board of Directors on March 20, 2020. It is hoped that this document will provide a roadmap for growth and development of the Arboretum well into the future, and will ensure that it remains a vital, active, and healthy community asset for years to come.



BACKGROUND

A serene pond scene with a building in the background and reeds in the foreground. The building has a small tower and is surrounded by trees. The pond is calm with some reeds and a small rock formation in the middle. The foreground is filled with tall green reeds.

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Human and Natural History

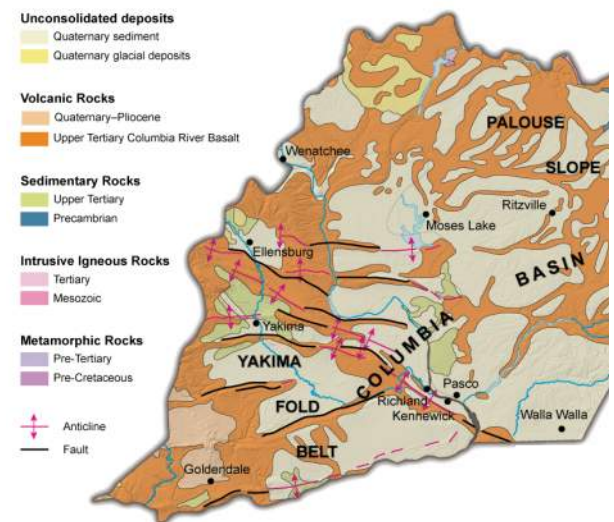
Long before the first tree was planted at the Yakima Area Arboretum, ecological systems shaped the local environment and provided the resources for flora and fauna to thrive.

Geology

The Yakima area lies near the western edge of the Columbia Basin, a geographic province covering much of central and eastern Washington and eastern Oregon that has been defined by dramatic geologic events over time. Roughly 15 million years ago the basin was filled with a mile-thick layer of flood basalts caused by openings in the earth's surface that allowed massive amounts of magma to escape. Around the same time, the underlying crust beneath today's central Washington began to thrust and fold under the pressure of continental drift. Yakima lies in one of the many valleys that formed between the resulting ridges.

Later, during the last Ice Age, massive floods backed up into the valley as they flowed between the broken ice dam on glacial Lake Missoula and the Columbia Gorge. They dropped tons of silt on the valley floor before washing back out. More silt was added in the form of wind-deposited loess during the following millennia. Ash deposits from nearby volcanic eruptions, including

the 1980 Mt. St. Helens event, have added to the soil profile over time.



Columbia Basin Deposits Map

The soils beneath the Yakima Area Arboretum contain minerals from all these geologic processes that have been sorted and re-sorted over time by the action of the nearby Yakima river as its course meandered through the valley. The resulting alluvium consists of silt, sand, and gravel in varying proportions. And while the water table is relatively high due to the proximity of the river, the upper soil layers maintain a high degree of permeability due to the coarse texture and unconsolidated nature that is typical of this kind of depositional environment.

Native Peoples

The Yakama People were one of numerous Native American tribes who lived in the Columbia Plateau prior to the arrival of Euro-American settlers. They followed seasonal migration patterns based on the movement of salmon in the Yakima and Columbia rivers. The Yakama People were thought to have settled along the riverbanks in the spring and summer, traveling back up into the foothills and mountains in autumn. In addition to salmon harvesting, they gathered camas, bitterroot and berries, and hunted deer. Their range of nomadic activity grew after the middle of the 18th century when they acquired horses from neighboring tribes to the south. They encountered the Lewis and Clark Expedition in 1805 near the confluence of the Columbia and the Yakima rivers.

Catholic missionaries established a presence in the valley in the late 1840's and dug the first irrigation ditches. Upon the establishment of Washington Territory in 1853, pressure mounted to open Native American lands to white settlement. On June 9, 1855, 14 tribal leaders signed the Treaty of Yakima, ceding nearly 11 million acres to the United States government. Native American resentment grew over the outcome of the treaty, and the resulting war ended with many surviving Yakama members settling on reservation land. Today, the 10,000-member Yakama Nation controls nearly 1.3 million acres in the area.



Yakama tepee circa 1910

Euro-American Settlement

Cattle drives began to move through the area as early as the 1850's. The first non-native, non-missionary settlers were the Thorp family who built a ranch near the current site of Moxee in 1861. Other settlers followed, and Yakima City was incorporated in 1883 at the present-day location of Union Gap. In 1884 the Northern Pacific Railroad located the station for its new rail line four miles to the north, and most of the town (including its buildings) moved to that location. Originally called North Yakima, the new town changed its name simply to Yakima in 1918.

Although small irrigation ditches had been dug by farmers and missionaries throughout the valley, the first major irrigation project was undertaken by the Northern Pacific Railroad in 1889 to increase land values along the rights-of way they owned in the area. Many of the canals they built were incorporated into the massive Yakima Project, one of the first major undertakings by the Federal Bureau of Reclamation. The system was largely complete by 1910, and still forms the backbone of the nearly 2,100 miles of irrigation canals in the Yakima Valley. The ready supply of irrigation water, along with ample sunshine, productive soils, and easy access to freight rail service have helped the Yakima Valley to become one of the most productive and well-known agricultural areas in the country. Vineyards, hops farms, and fruit orchards have been present in the valley since the late 19th century, and now exist on an industrial scale.

Yakima Today

The City of Yakima is today home to around 94,000 people and serves as the county seat of Yakima County. The economy of the area continues to be focused on agriculture, and tourism related to the area's wineries continues to grow. Nearly 50% of Yakima's population claim Hispanic or Latino descent, owing to a steady influx of immigrant farm workers from Latin America over the past several decades. Notable annual events include the downtown Cinco de Mayo celebration, Central Washington State Fair, and the Fresh Hop Ale Festival, which celebrates the Yakima Valley's famous hops-growing industry. Yakima Valley College and Pacific Northwest University of Health Sciences are among the higher education facilities serving the community.



Above: Historic Photo of Yakima
Below: Yakima Today



History of the Arboretum

The land currently occupied by the Yakima Area Arboretum was originally a seasonally flooded wetland adjacent to the river. By the 1920's, irrigation and flood control projects in the area allowed for the land to be farmed, initially with chickens and rabbits. By the 1940's, the site was home to a vegetable farm and a small lilac-growing operation. In 1959, the Metropolitan Park District acquired the land with the intention of turning it into a park.

The land went unused until 1967 when the Central District of the Washington State Federation of Garden Clubs brought its 36 garden clubs together to establish the Yakima Area Arboretum as a non-profit organization. The Arboretum entered into a management agreement with the Metropolitan Park District for the development of the facility. In 1967 the first tree, a cedar, was planted and planning began in earnest for the future. Landscape Architect Robert Wagner was hired to design a plan for the Arboretum.

As the Arboretum continued to develop, it was built, managed, and operated solely by volunteers. In 1991, the construction was completed on the Jewett Interpretive Center. The first salaried Director was hired in 1993.



Historical Photos of Yakima Area Arboretum

Yakima City Parks

Sumac Park, developed informally along the Yakima River adjacent to downtown and since destroyed by flood, was the first unofficial city park in Yakima. Several other parks followed, and in 1933, a Parks Department was founded to maintain and operate the system. A decade later voters established an independent Metropolitan Parks District. In the late 1960s, the city of Yakima failed to pass a maintenance and operations levy that resulted in a funding crisis which led to a dissolution of the MPD in 1969 and a transfer of responsibility to a new city Parks and Recreation department. Later budget issues led city officials to again transfer authority over the city's parks, this time to the Public Works Department, where it currently rests. A successful 1987 bond measure added amenities to the park system. With the help of a combination of grants, private donations, and a significant level of support from local service clubs, the Yakima park system has continued to expand and modernize to meet the needs of the growing community.

Climate

Using the Koppen climate classification system, Yakima is classified as a Cold semi-arid climate, or type BSk. Due to the rain shadow effect caused by the nearby Cascade Range, Yakima receives only 9" of annual precipitation, with some of it falling as snow. The average high temperature in July is 88 degrees, and the average low in January is 24 degrees. The elevation is 1070' above sea level. Winters are cool to cold and summers are distinctly hot and dry. The USDA Plant Hardiness Zone map lists the Yakima area as Zone 6b, with average annual extreme minimum temperatures between -5 and 0 degrees Fahrenheit.



Site Analysis

The Yakima Area Arboretum is located at the edge of the urban area, and offers a connection to several of the natural amenities of the Yakima Valley.

Site Context

INTERSTATE 82

Interstate 82 is a 144-mile-long major highway connecting the Yakima Valley to the rest of Washington and Oregon. It forms the entire western edge of the Yakima Area Arboretum. Traffic is audible and visible from the freeway throughout the Yakima Area Arboretum. Additionally, the freeway limits many of the potential access points into the Arboretum from the neighborhoods to the east.

YAKIMA RIVER

Part of the eastern boundary of the Yakima Area Arboretum is formed by the Yakima River. Its course begins in the Cascade Mountain Range near Snoqualmie Pass and ends at its confluence with the Columbia River at Richland. It is the primary natural feature in the Yakima area, and is the main source for much of the agricultural irrigation used in the Yakima Valley. Recreation activities such as kayaking, swimming, rafting, and floating are common along the

course of the river through the valley. Flooding caused by the Yakima River was common in this area in the past, but a system of levees and dikes has made this a very rare occurrence in modern times.

YAKIMA GREENWAY

Running to the east of the park, and through its northeast corner, the Yakima Greenway is a paved pathway that stretches for 20 miles throughout the Yakima Valley. It is a very popular trail system that connects several of the region's major recreational areas. The high number of walkers, joggers, and cyclists using the trail constitute one of the primary groups of users who interact with the Arboretum on a daily basis. The Greenway Foundation was established in 1980 and works to "Conserve, enhance, and maintain the Yakima Greenway as a continuing living resource for future generations."

SHERMAN PARK

Bordering the Arboretum to the southeast, Sherman Park is an active space under the management of the city of Yakima Greenway Foundation. A 60-car parking lot serves the park itself and the adjacent Greenway.

Sherman park has many amenities typical of city parks, including a rentable gazebo, picnic areas, lawns, and an off-leash dog area. The Park has a pathway system that connects to the Yakima Greenway Trail.

BUCHANAN LAKE

Located directly to the north of the Arboretum, Buchanan Lake originally was a gravel pit. In 1997 the water pumps were turned off, creating Buchanan lake in a few days. The Buchanan family have built habitat islands, encouraging local wildlife to inhabit the area. The lake is currently managed as a wildlife habitat, and public access is unavailable. Although the southern edge of the lake is quite close to the Arboretum boundary, the lake is not visible from publicly accessible parts of the Arboretum.

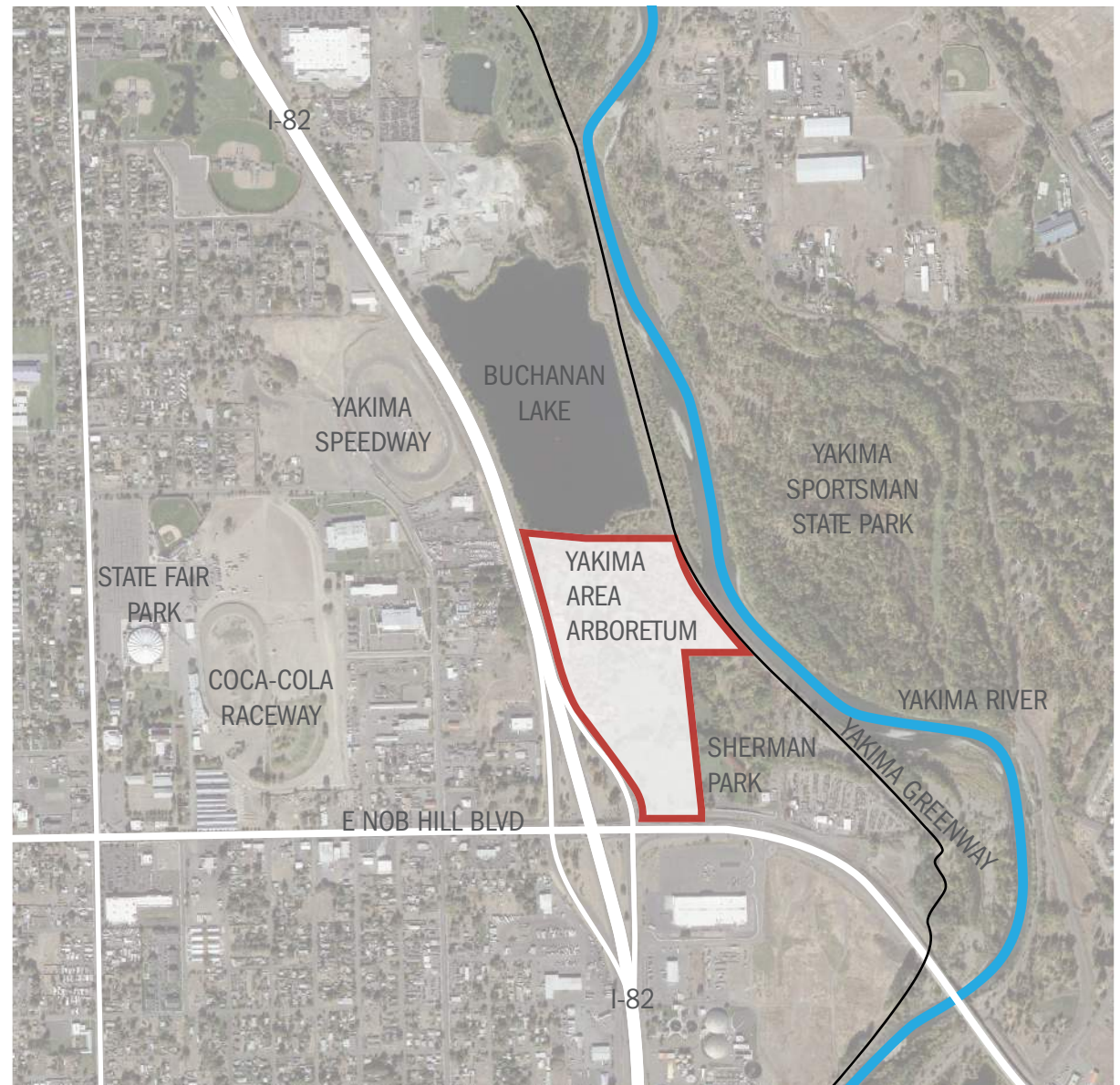
NEARBY PROPERTIES

To the east of the Yakima Area Arboretum beyond the river lies Yakima Sportsman State Park, a 266-acre open space under state jurisdiction that provides a home to many species of native plants and animals. It includes hiking trails, fishing ponds, camping sites,

sports courts, and an equestrian area.

Past I-82 to the west of the Arboretum sits the Yakima Speedway, and the grounds of the Yakima Valley State Fair. These event sites are infrequently used, though when in use the activities can be heard at the Yakima Area Arboretum. All properties along I-82 adjacent to the Arboretum are zoned as Regional Development, which is a commercial district.

South of the Arboretum, along E Nob Hill Road, the city of Yakima has zoned for General Commercial. Currently there is a large U-Haul storage facility and an encampment for homeless people in the community called Camp Hope. Camp Hope opened in 2017 and operates a barracks-style shelter for roughly 100 people each night. As part of the admission process, residents commit to ten hours of volunteer service per week.

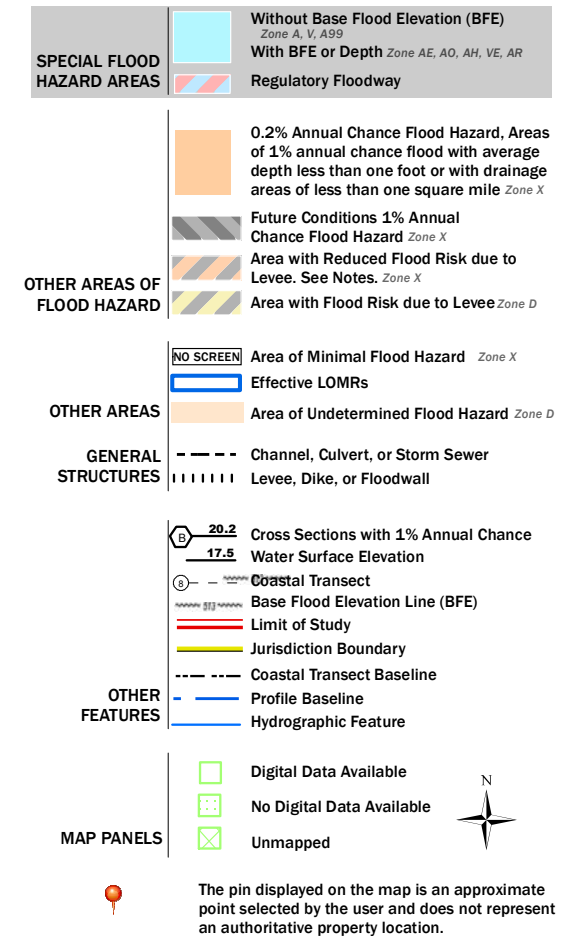
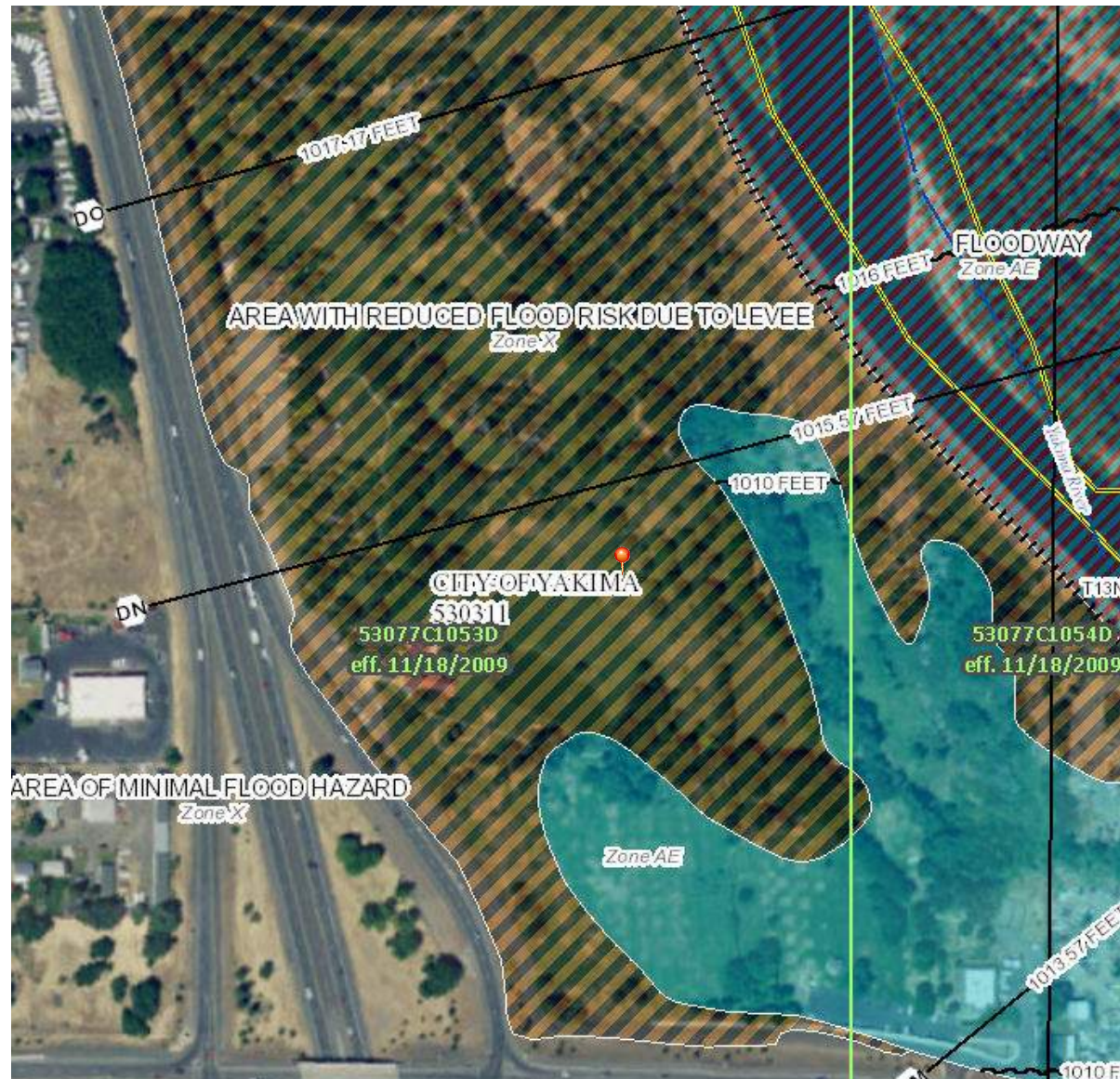


Existing Zoning

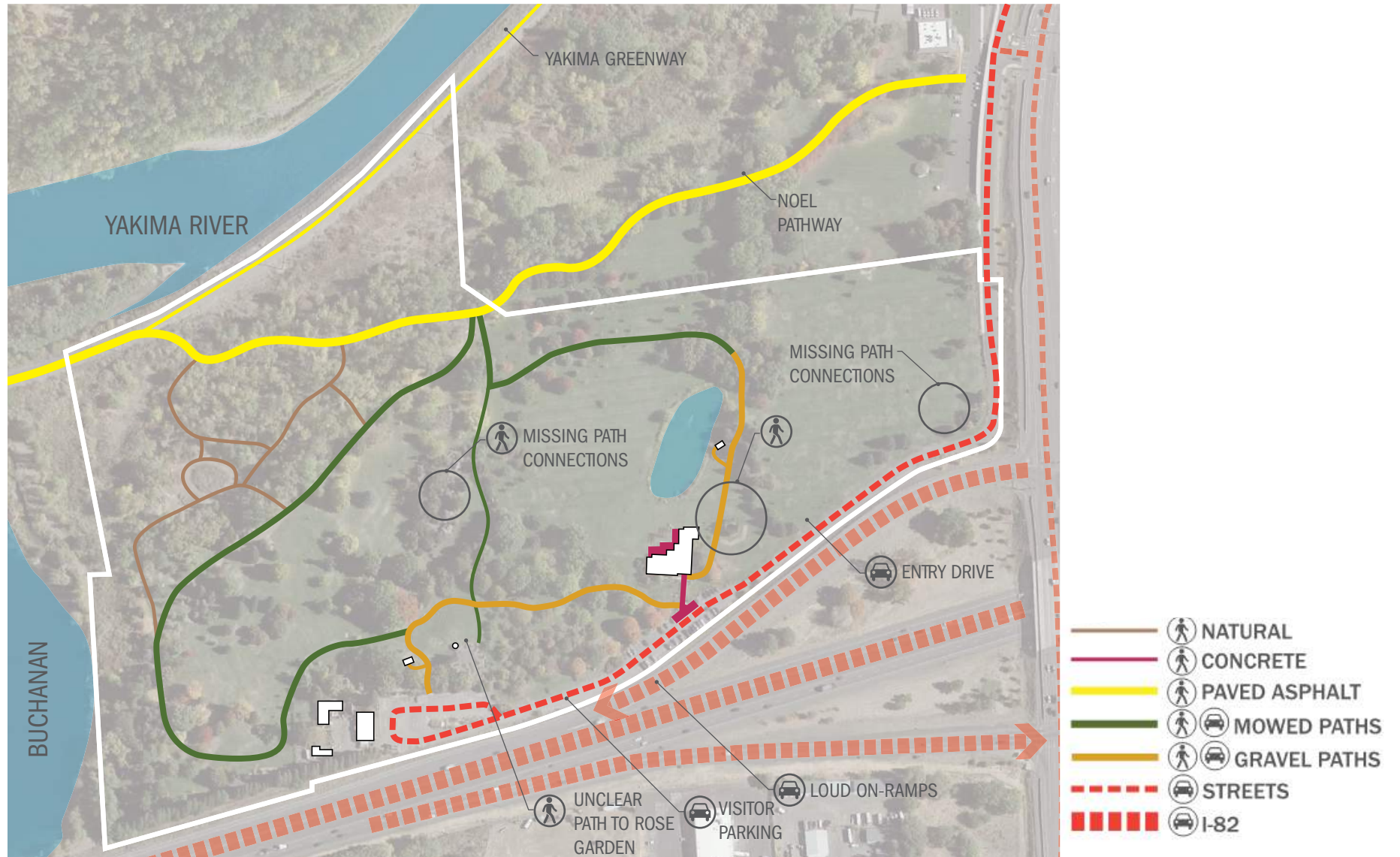
FEMA

FEMA has designated the Yakima Area Arboretum with two different zones, the first being zone AE. An AE Zone is considered a Special Flood Hazard Area and is subject to a 1% annual chance flood event as determined by FEMA. For homeowners this designation required the purchase of additional flood insurance. As shown in the FEMA map on the right, the AE Zone is mostly within the Shields Addition at the Yakima Area Arboretum.

The rest of the Arboretum is classified as Zone X. This area has a reduced risk from flooding due to the levee. Zone X is considered a moderate flood hazard area with a .2% annual chance of a flood event.



National Flood Hazard Map



Site Circulation

VEHICULAR ENTRY

Entry into the Yakima Area Arboretum is found along E Nob Hill Road. Visitors turn onto W Birchfield Road, and follow it as it turns into Arboretum Drive. Arboretum Drive runs parallel to the entrance ramp to Interstate 82. A bare, fenced slope separates the highway entrance ramp from the Arboretum entry road. Guests continue as the road turns into the parking lot. The vehicular entry ends at the maintenance building where there is some additional parking and room for drivers to turn their vehicles around.

PARKING

Parking is accessed off the main vehicular entry. Directly adjacent to the Jewett Interpretive Center is the most central and well-marked parking area. This lot contains 50 parking stalls, including two that are accessible. The security lighting and proximity to the Jewett Interpretive Center help define this parking lot as the central visitor parking lot. The pavement is in a good condition, and there is a concrete paved access point directing guests to the Jewett Interpretive Center.

Following the Arboretum Drive north visitors pass 24 parking spaces along the freeway and 25 parking spaces on the lawn adjacent to the Maple Colonnade, these spaces are less formal and presumably used for event and overflow parking. Arboretum Drive ends at the Maintenance Buildings and parking lot where there are 43 additional parking spaces, one of which is accessible. This parking lot surfacing is in a poor

condition. There is a direct connection to the Rose Garden and public restrooms from this parking lot.

The total parking at the Yakima Area Arboretum to 142 spaces, three of which are accessible. This is two short of the 2010 ADA Standards, which requires five accessible parking spaces where 101-150 spaces are provided.

SIGNAGE AND WAYFINDING

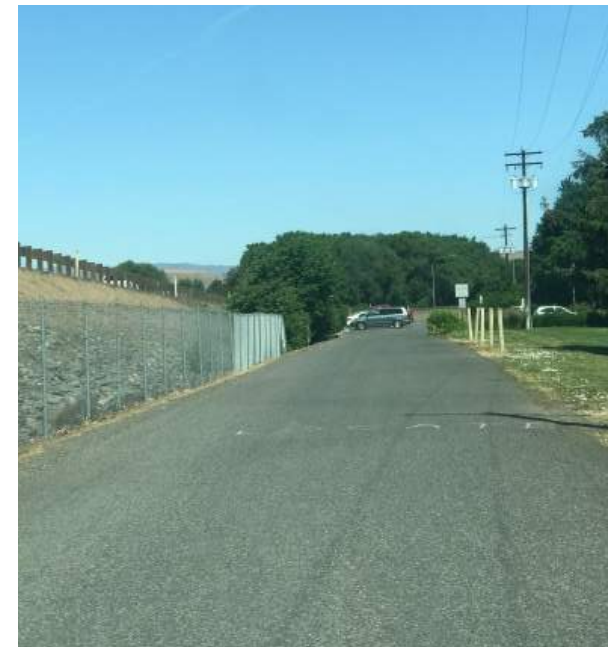
Along E Nob Hill Road, some small directional signs lead the way to the Arboretum. These signs are placed strategically to be visible to visitors coming via automobile. A tall, three-dimensional sign located near the maintenance building is intended to identify the location of the Arboretum to drivers passing by on Interstate 82.

Along the Noel Pathway from the Yakima Greenway is a pedestrian-scaled sign indicating entrance into the Arboretum. In the middle of the Sherman Lawn is a larger sign directed towards drivers who are entering along Arboretum Drive. These two signs are similar in their design aesthetic.

PEDESTRIAN PATHWAYS

The Yakima Area Arboretum contains several pathway typologies. A concrete path directs visitors into the Jewett Interpretive Center from the main parking lot. Pedestrians may also connect to the existing crushed rock pathway leading to other parts of the Arboretum in two directions. The gravel path is in good condition,

though the plastic edging is in poor condition in some areas. These crushed rock path sections form the ends of a large loop running through the Arboretum, the rest of which exists as a swath lawn that is more closely mown than lawn surrounding it. The location of the path is easy to discern from a near distance or while on the path but is difficult to see from afar. The mowed path leads guests to several nature trails in the natural area, many of the exhibit areas in the Arboretum, and to the paved asphalt Yakima Greenway Trail. There are many places in the Arboretum where missing pathway connections cause visitors to informally walk across lawn areas to reach their destinations.

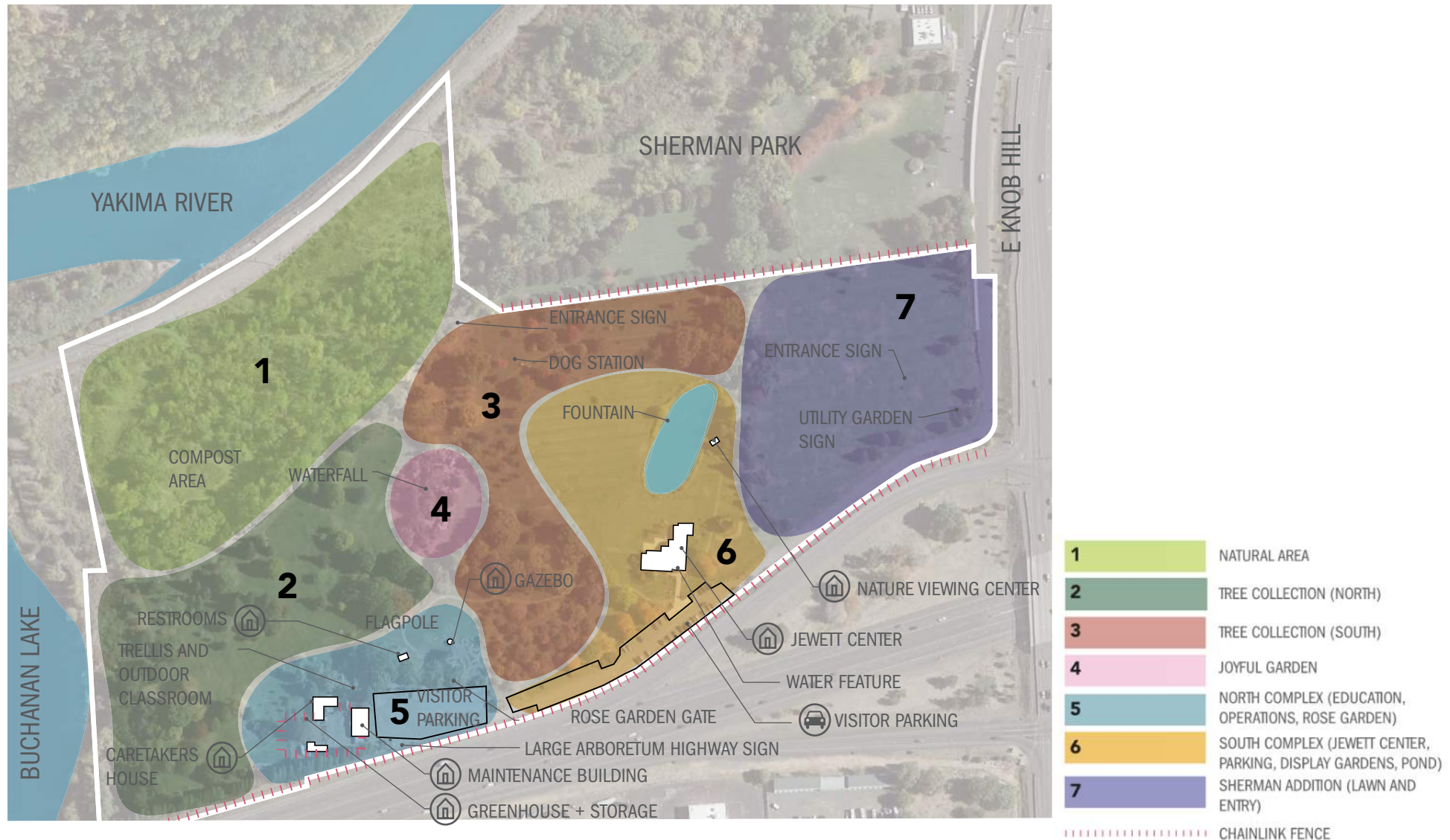


Vehicular Entry into the Site

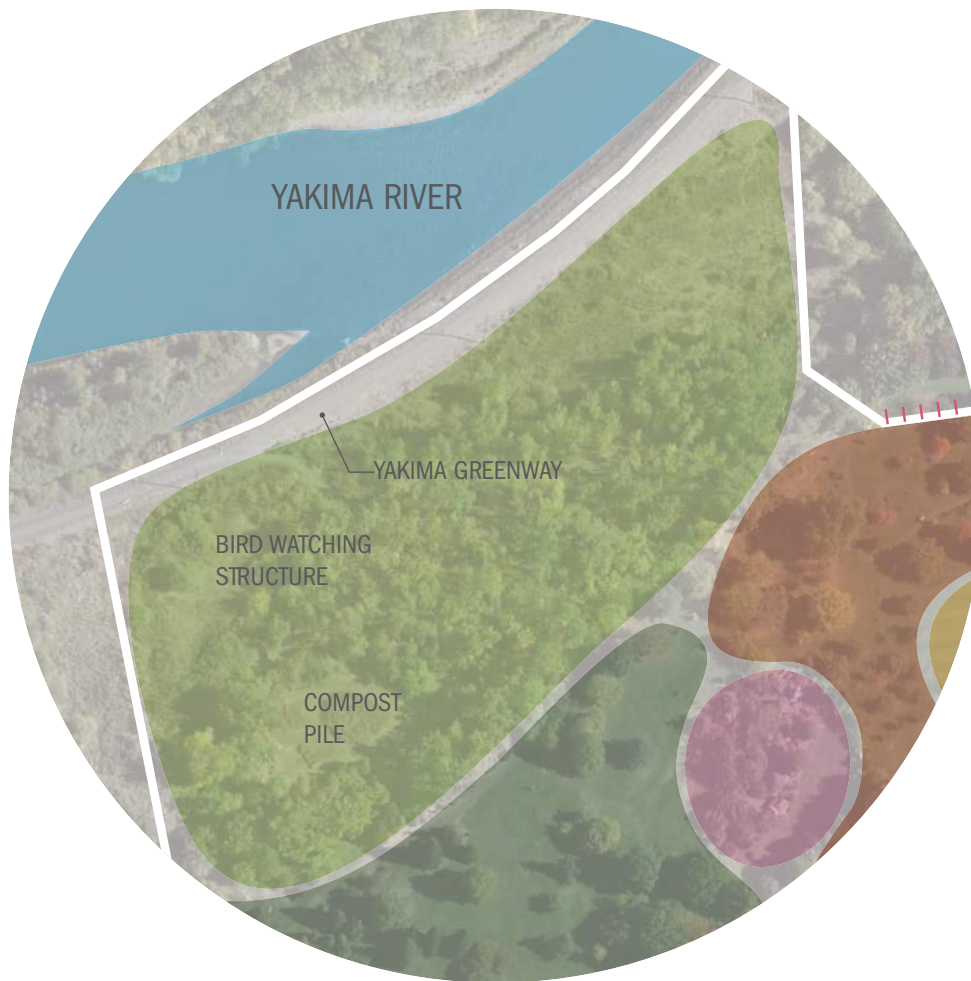
Existing Site Collections



Site Observation Areas



Site Observations: Natural Area



- Lack of wayfinding and signage.
- No connection back to Arboretum.
- Large compost area visually dominates.
- Overgrown vegetation.
- Path hierarchy is unclear.
- Many large cottonwoods are failing due to change in hydrology.



Greenway Path



Signage



Boy Scout Structure



Wayfinding



Vegetation



Pathway Hierarchy



Bollards



Bird Watching Structure

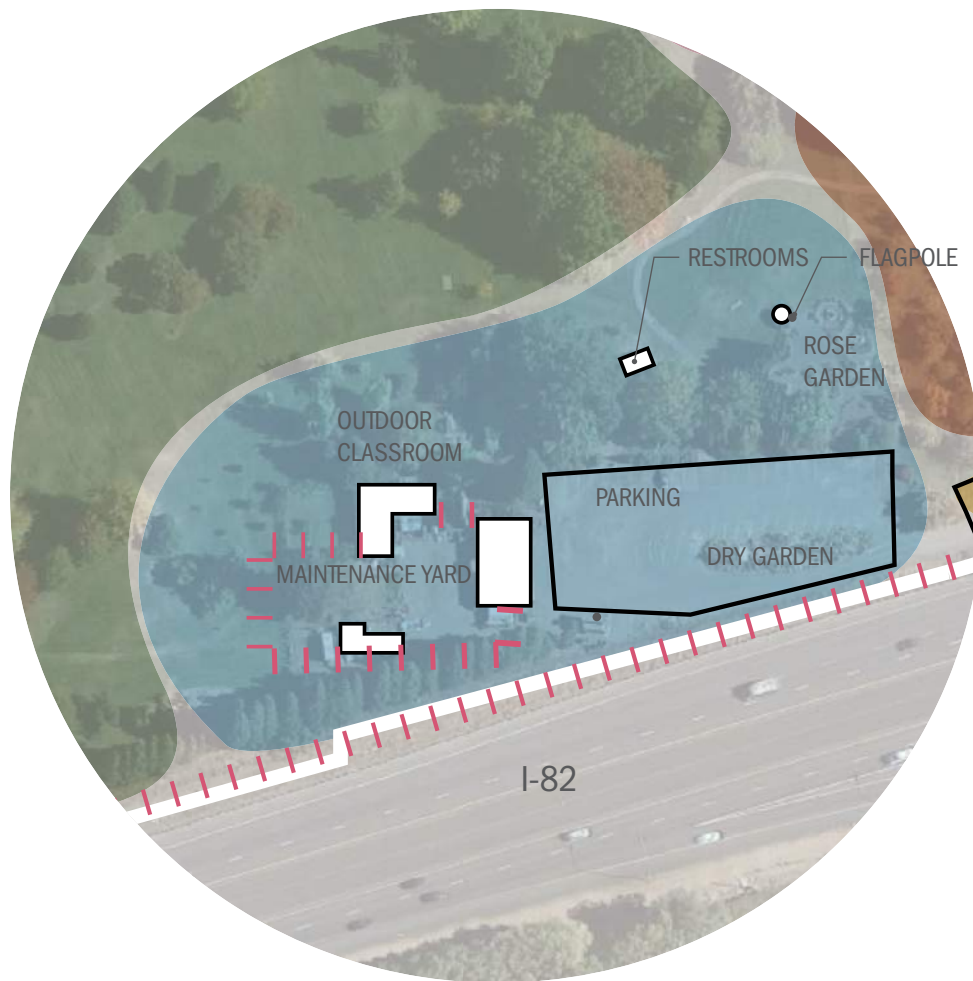


Pathway



Compost Pile

Site Observations: North Complex (Education, Operations, Rose Garden)



- New grape arbor is thriving, though difficult to access.
- Outdoor classroom area is inviting, and well-used in the summer months.
- Rose Garden does not have plant identification signs.
- Deer browsing has damaged arborvitae surrounding the Rose Garden.
- Restroom building located conveniently for camps.
- Flagpole area seems to floating, not connected to exhibits.
- The Kara Kondo Dryland Garden location separates it from other garden areas.
- Freeway noise intense near maintenance shop and parking lot.
- Maintenance buildings and camp classroom might not be the best elements to located next to each other.
- Compost education area.
- Irrigated greenhouse visible from North Tree Collections and main pathway.
- Restroom structure could be better integrated with surroundings.



Rose Garden Gazebo



Dry Garden



Restroom Structure



Flag Pole



Greenhouse and Garden



Vehicular Entry Drive



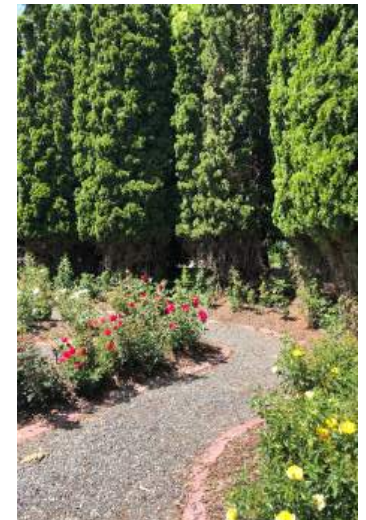
Arbor + Classroom



Irrigated Greenhouse

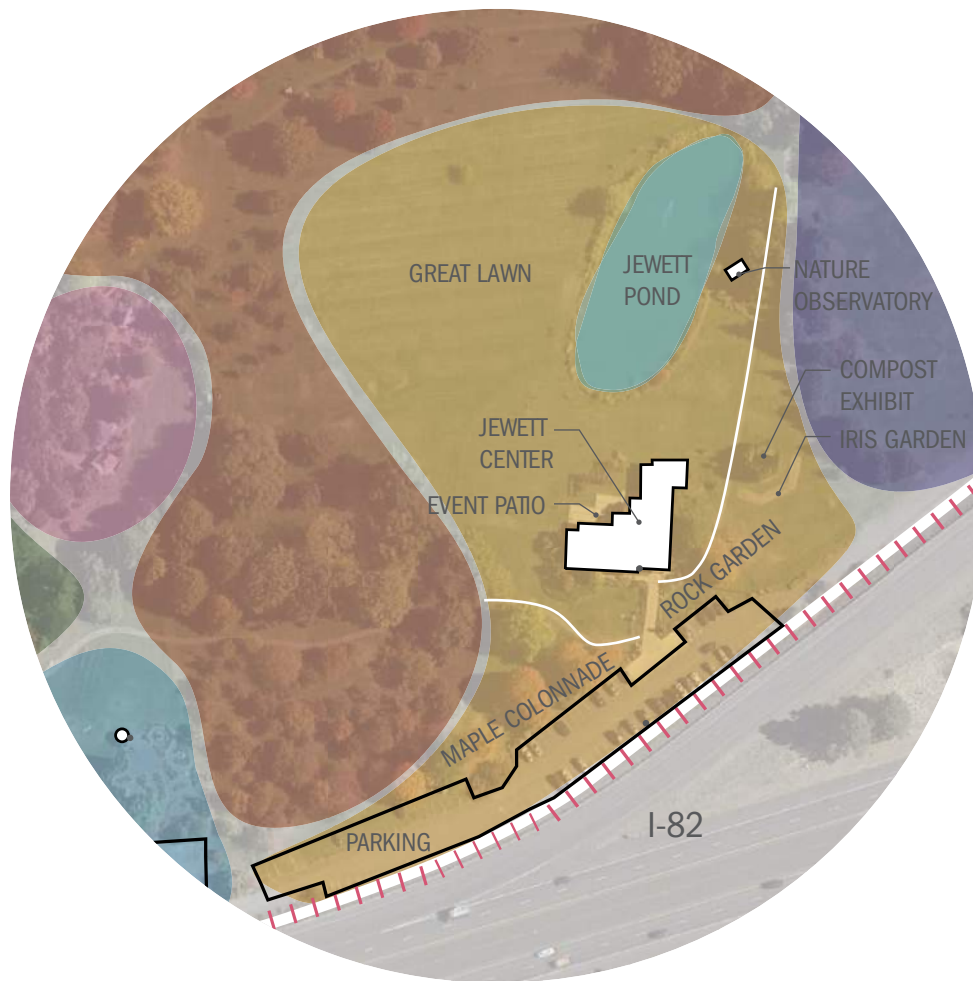


Maintenance Building



Rose Garden Planting

Site Observations: South Complex (Jewett Interpretive Center, Parking, Display Gardens, Pond)



- No defined edge to Jewett Pond.
- Cannot approach water's edge from the Great Lawn.
- Fountain sound blocks some highway noise.
- Douglas fir collection branches close to pathway, creating a tight pedestrian experience.
- Nature Observatory plantings do not blend into other nearby plantings.
- Pollinator Garden signage gets lost in colorful garden.
- Freeway very visible from Jewett Interpretive Center entrance and from the visitor parking lot.
- Main pathway leading to Nature Observatory and Jewett Pond is hidden behind the Jewett Interpretive Center and plantings.
- Great Lawn was well used, and a popular destination for visitors.
- Jewett Interpretive Center building blocks noise from highway, creating a quiet event space.
- Maple Colonnade is not well defined and has little signage indicating exhibit.



Jewett Pond Fountain



Jewett Pond Edge



Pathway with Plantings



Nature Center



Iris Garden



Shade Garden



Jewett Interpretive Center Patio



Lawn at Jewett Interpretive Center

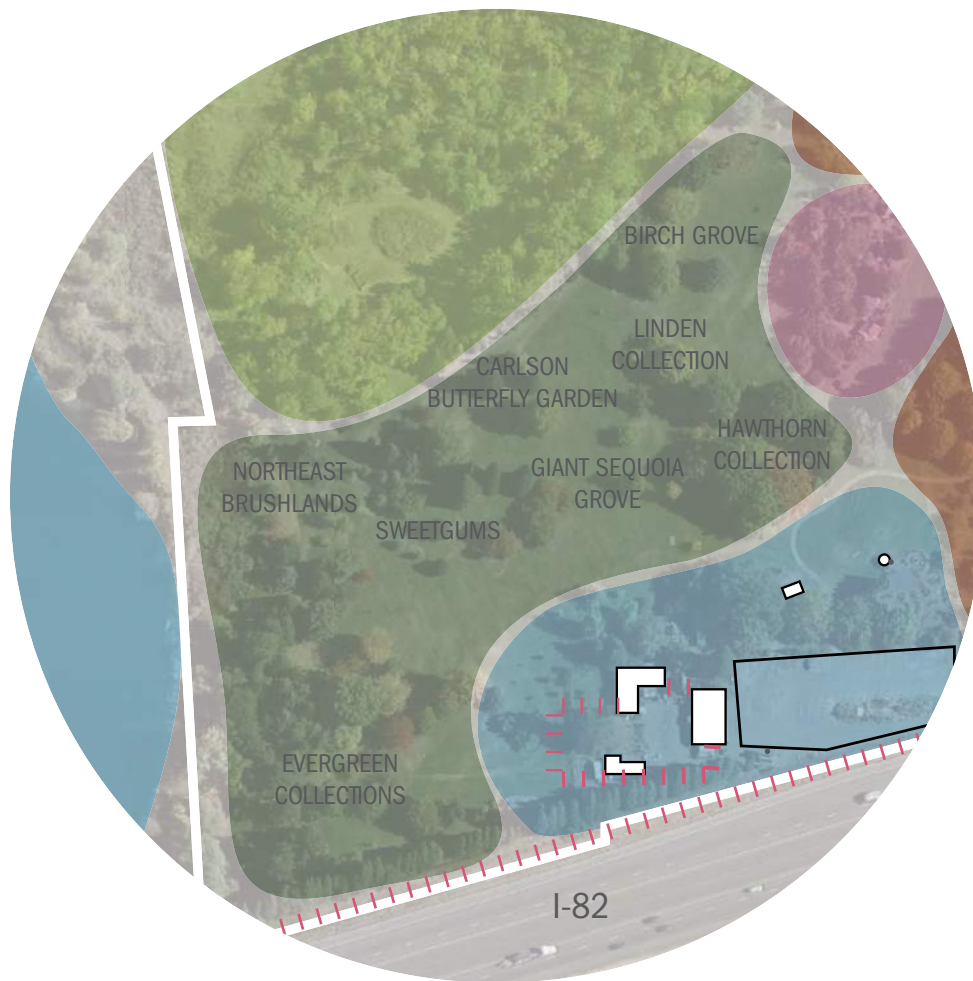


Main Pathway



Visitor Parking

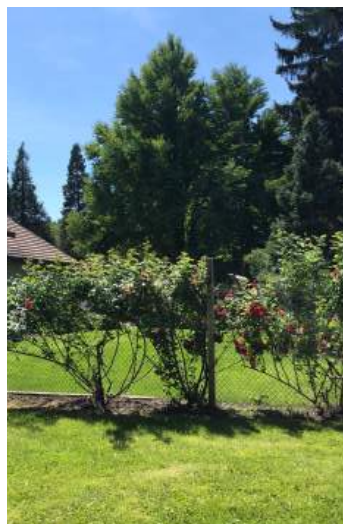
Site Observations: Tree Collection (North)



- Evergreen Collection blocks out noise from Interstate 82.
- Back of maintenance yard visible from collections.
- No shrub or low plantings under tree collections.
- Mowed pathway surface varies in quality.
- Trees in healthy condition.
- Experience of viewing trees from up close and afar is a character-defining element of the Arboretum.
- Episodic experience of moving in and out of tree canopy areas is a desirable feature to be preserved.



Mowed Pathway



Screening



North Side of Greenhouse



Damage to Pathway



Collection Signage



Collection Specimens

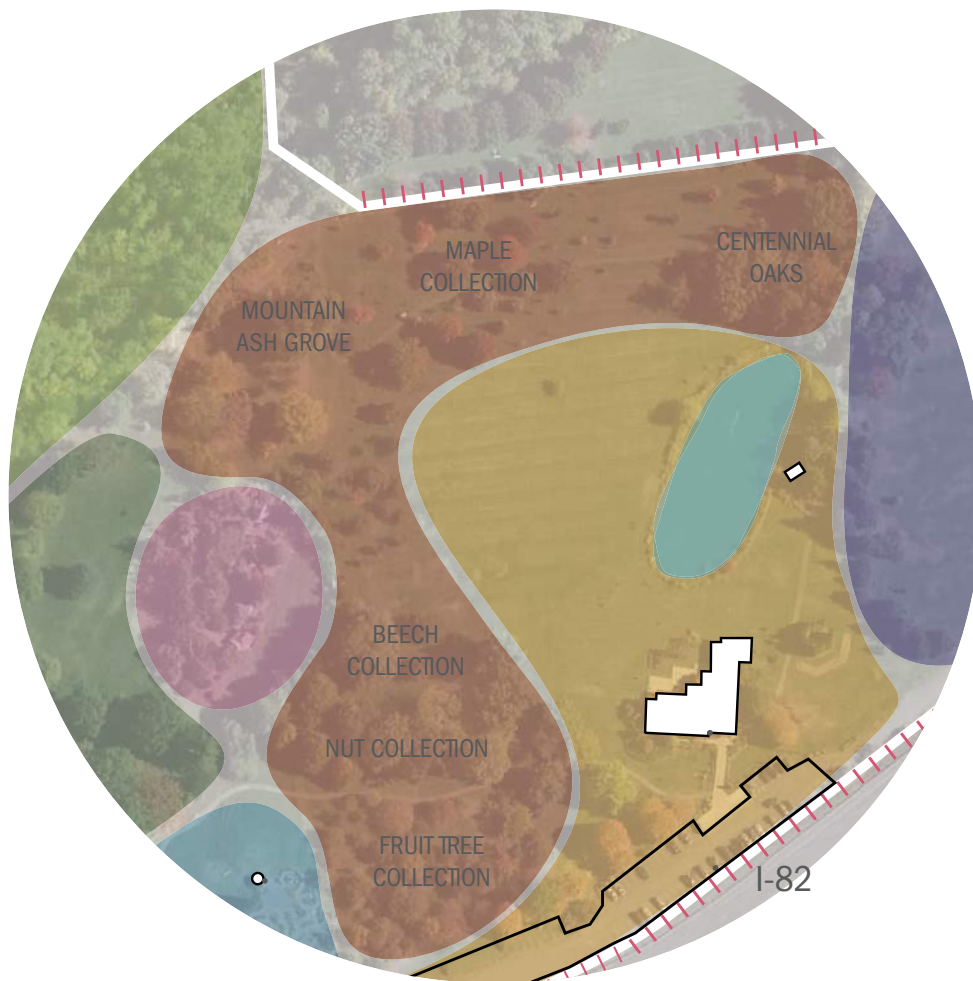


North Property Line Vegetation



Evergreen Collection

Site Observations: Tree Collection (South)



- Oak Collection looks healthy and full, casting nice shady spots in lawn.
- Many oak trees have memorial plaques.
- Chain-link fence visible from Oak Collection.
- Gravel path transitions to mowed path can be hard to visualize from far away, but seems to be maintained well.
- Gravel pathway going through nut collection is about 4.5ft wide, which may be too narrow.
- Plastic edging breaking down throughout path.
- Fruit Tree Grove generally healthy and very attractive in bloom.
- Maple Colonnade seems a bit disconnected from pedestrian circulation system.



Pathway Edging



Memorial Tree



Memorial Bench



Understory of Oaks



Plant Labels



Main Pathway



Damage to Gravel



End of Gravel Path

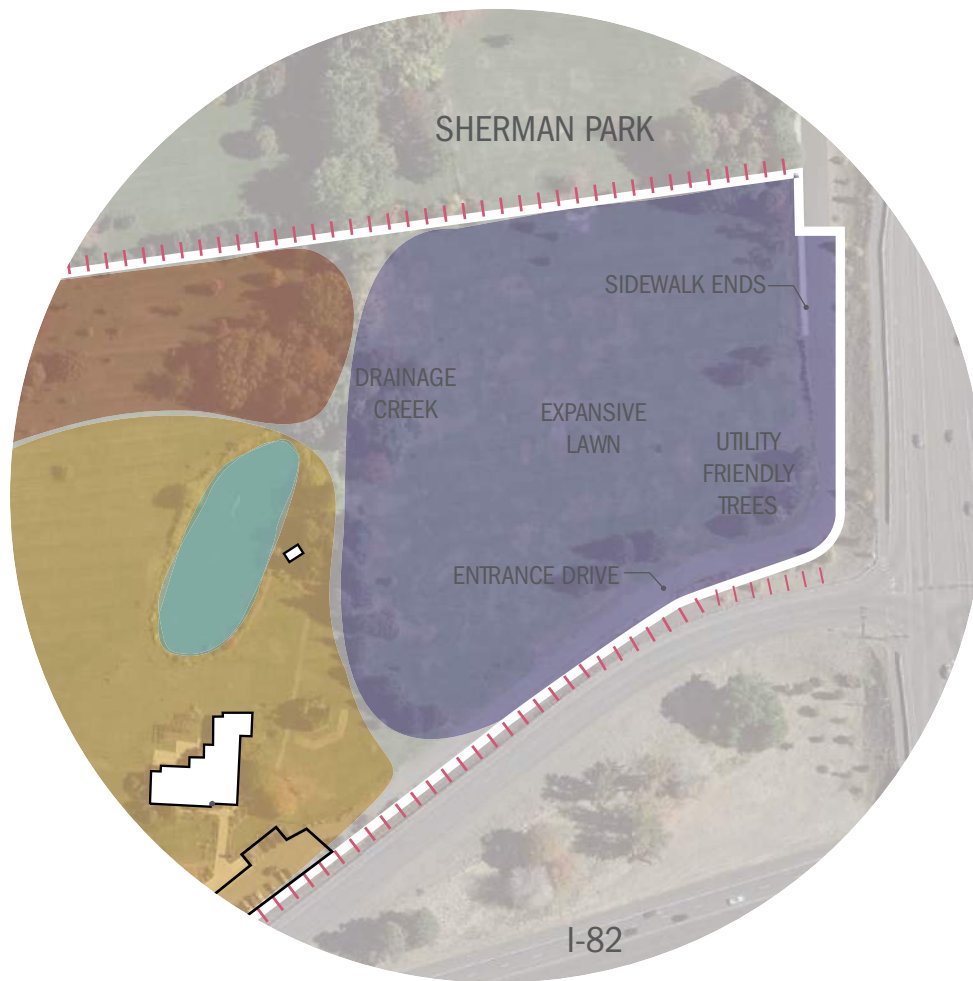


Paths of Desire



Oak Tree Collection

Site Observations: Shields Addition



- Existing signage at Utility Garden does not identify collection, some signs are facing inwards, facing other plants and mulch.
- Norway Spruces in the middle of lawn in great condition.
- Lawn has minimal topographic change, and seems to be in good shape.
- Chain-link fence separating this area from Sherman Park is often times covered with vegetation. Potential for hedgerow garden along fence.
- Views and sounds from freeway are perceptible in entire area.
- Reads as its own separate area of the Arboretum.
- Giant Sequoias appear to be very healthy.
- Group of Sycamores in the SE corner in good shape, and casting attractive shadows on the open lawn.
- Entry sign seems to be free floating in the lawn area.
- Sidewalk abruptly ends midway through arboretum property.
- Entry roadway feels narrow and “Back of House”.



Chain-link Fence Vegetation



Entry Sign



Entry Drive



Utility Exhibit Signage



Chain-link Fence



Utility Friendly Tree Exhibit



Lawn Plantings



Lawn

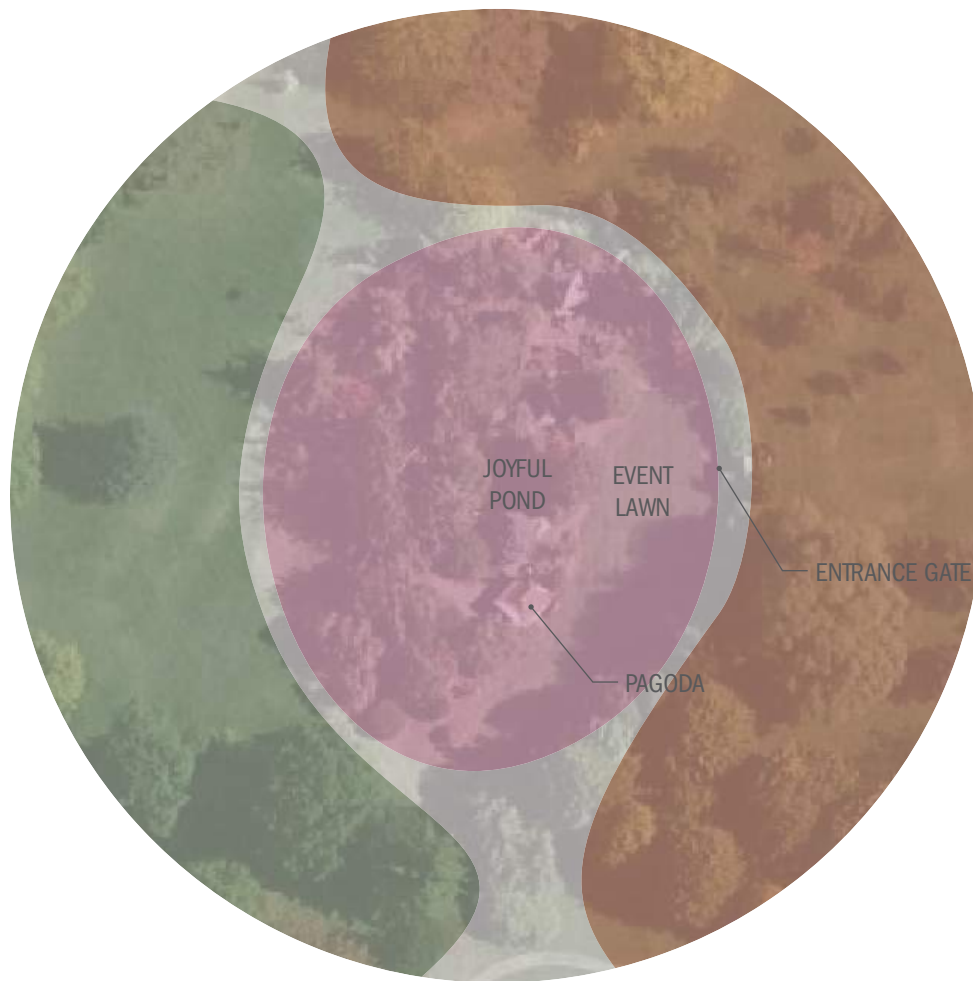


Sidewalk



Maturing Collections

Site Observations: Joyful Garden



- Large event lawn.
- Water feature helps block traffic noise.
- Shady building spaces.
- Limited connection to main pathway.
- Entrance and exit not well defined.
- Pagoda and pavilion structures not easily found.



Bridge Over Pond



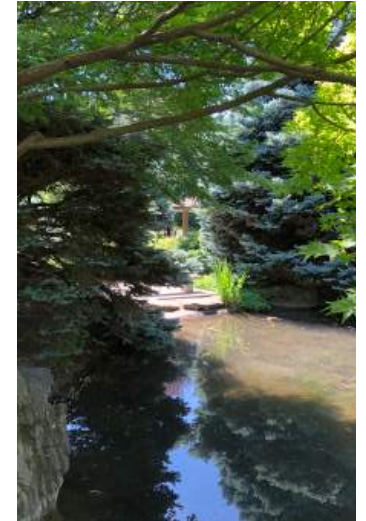
Gravel Pathway Edging



Pagoda and Plantings



Event Lawn



Pond



Water Feature



Pagoda



Interior of Pagoda



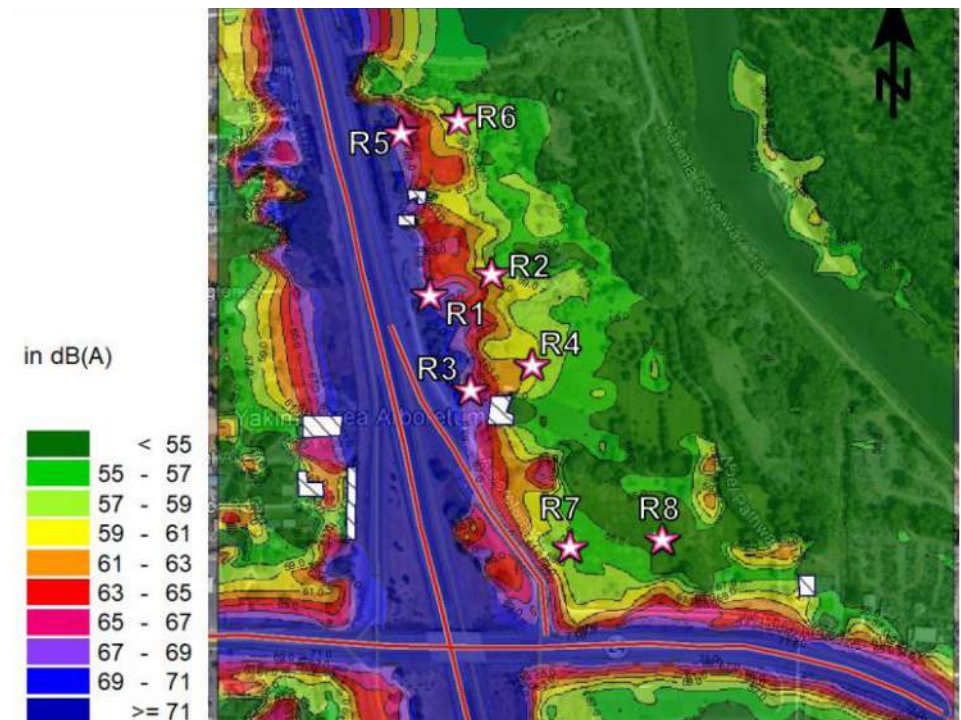
Main Pathway



Gravel Pathway

Noise Assessment

Interstate 82 runs along the entire west side of the Yakima Area Arboretum. In order to better understand the existing condition, and to evaluate the potential effects of barrier installation, a noise level assessment was completed by Stantec Consultants. The existing noise levels were tested at 8 separate locations throughout the site. Those locations were used to compare the effect walls of various heights might have on the intensity of sound coming from Interstate traffic. The report indicated that the installation even a very large and expensive barrier would have a negligible impact on sound levels within most of the Arboretum, and that other approaches would need to be taken to address this issue. The Noise Assessment Report can be found in the addenda.

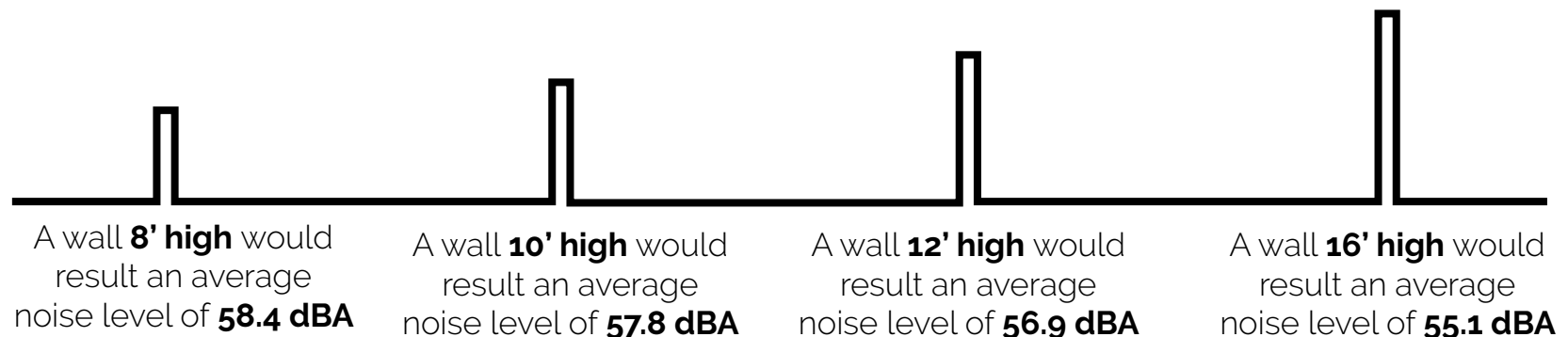


Results

Consultants measured eight different locations finding an average noise level of **60.2 dBA** - about as loud as a typical **conversation in a restaurant**.



Then - they studied how **walls with different heights** would impact noise at the Yakima Area Arboretum:



A sound wall would have only a minor effect on noise levels throughout the site.

PLANNING PROCESS

2

Stakeholder Meetings

The planning process began with identifying a group of stakeholders who would work together to establish a shared vision for the Master Plan.

Stakeholder Session #1 06/10/2019

Our first stakeholder workshop took place in the Jewett Interpretive Center at the Yakima Area Arboretum. Consultants from AHBL, Morse Landscape Architecture, and the Stakeholder group gathered to establish values and the larger vision for the master plan effort. We began by discussing the big picture and asking, “Why are we here?”

Following a discussion on our values and vision for the future of the Yakima Area Arboretum, we broke into groups to discuss our guiding principles in detail. The results from this first stakeholder workshop session can be found in Chapter 3, Visioning and Framework.

Stakeholder Session #2 06/24/2019

Our second stakeholder workshop occurred at the Jewett Interpretive Center two weeks later. We discussed existing site conditions and reviewed case studies of similar gardens and arboreta. Site analysis focused on existing site amenities and circulation patterns.

We reviewed four case studies of similar gardens or arboreta across the United States for use as comparisons and to generate ideas about what might be possible here.

Case Studies Included:

- Fullerton Arboretum: Fullerton, California
- Morris Arboretum: Philadelphia, Pennsylvania
- Bellevue Botanic Garden: Bellevue, Washington
- Red Butte Garden: Salt Lake City, Utah

The full case study assessment can be found in the addendum of this master plan report.

Stakeholder Session #3 09/30/2019

The final Stakeholder session reviewed proposed elements to include within the master plan. The stakeholder group weighed in on three organizing designs for the entire site. We took that feedback the stakeholder group developed for the three schemes , and developed the schematic design for the Arboretum carried forward in the Master Plan.

Open Houses 06/24/2019

We conducted an open house to introduce the project to the public, share our progress, and seek input. The event was well-attended and yielded some valuable input and ideas that we were able to incorporate into our next phases of work. Overall, feedback was positive for the work we had done and for the effort in general.



Plantings in front of the Jewett Interpretive Center



Stakeholder Session #3

Public Survey

We conducted a public survey using SurveyMonkey® as our platform. During the period the survey was open, July 28th - September 20th, we collected 143 responses.

The survey asked a wide variety of questions in numerous formats all driving a desire to help understand the full picture of wishes and needs the public has for the Yakima Area Arboretum.

The surveys were advertised and promoted across the Yakima Area Arboretum's social media accounts and at the open house presentations. The data supported many of the views expressed at stakeholder meetings as well as the views shared at the open house. This page summarizes some of the key findings from the survey. The full survey can be found in the addenda.

95%
Arrive by Car



75%
Strongly Agree or Agree
they would like to see
Shurbs and Perennials



76%

Strongly Agree or Agree a Mobile
App would be helpful to learn
about plants



Guiding Principles

These guiding principles helped prioritize plan elements, and drive the vision for the Master Plan Report.

Mission

The Yakima Area Arboretum's existing mission statement is as follows:

“Our mission is to inspire people of all ages to discover and connect with nature through a diverse collection of trees and shrubs hardy to the Inland Northwest.”

Determining our Principles

At the first Stakeholders meeting on June 10th 2019, participants engaged in a dots exercise encouraging them to identify topics they would like to prioritize for the Yakima Area Arboretum Master Plan.

Those items were categorized into six guiding principles which will help focus and drive the vision behind the Master Plan Report.



Master Plan Vision and Values

PEOPLE AND COMMUNITY:

The Arboretum will provide a place for families of all backgrounds to gather, experience joy, and give back to their community.

- Gathering
- Volunteerism
- Cultural Diversity
- Community Values
- Family

ECOLOGY:

The Arboretum will provide opportunities to deepen connections between people and the natural world by enhancing wildlife habitat and demonstrating sound ecological practices in an urban forest landscape.

- Gathering
- Volunteerism
- Cultural Diversity
- Community Values
- Family

SOLITUDE AND REFUGE:

The Arboretum will provide an inspiring refuge for contemplation, well-being, and the opportunity to connect with a deeper sense of inner peace and tranquility.

- Spiritual
- Peaceful
- Refuge
- Contemplative
- Awe



BEAUTY:

The Arboretum will provide opportunities to celebrate the inherent natural beauty and ambiance of a unique and evolving collection of trees.

- Unique
- Ambiance
- Beauty
- Gallery
- Showcase

RECREATION AND PLAY:

The Arboretum will provide a range of recreational opportunities that are accessible, unstructured, and interconnected throughout a diverse and varied landscape.

- Open Green Space
- Non-Sports Activities
- Continuity with Greenway
- Non-structured Recreation

EDUCATION:

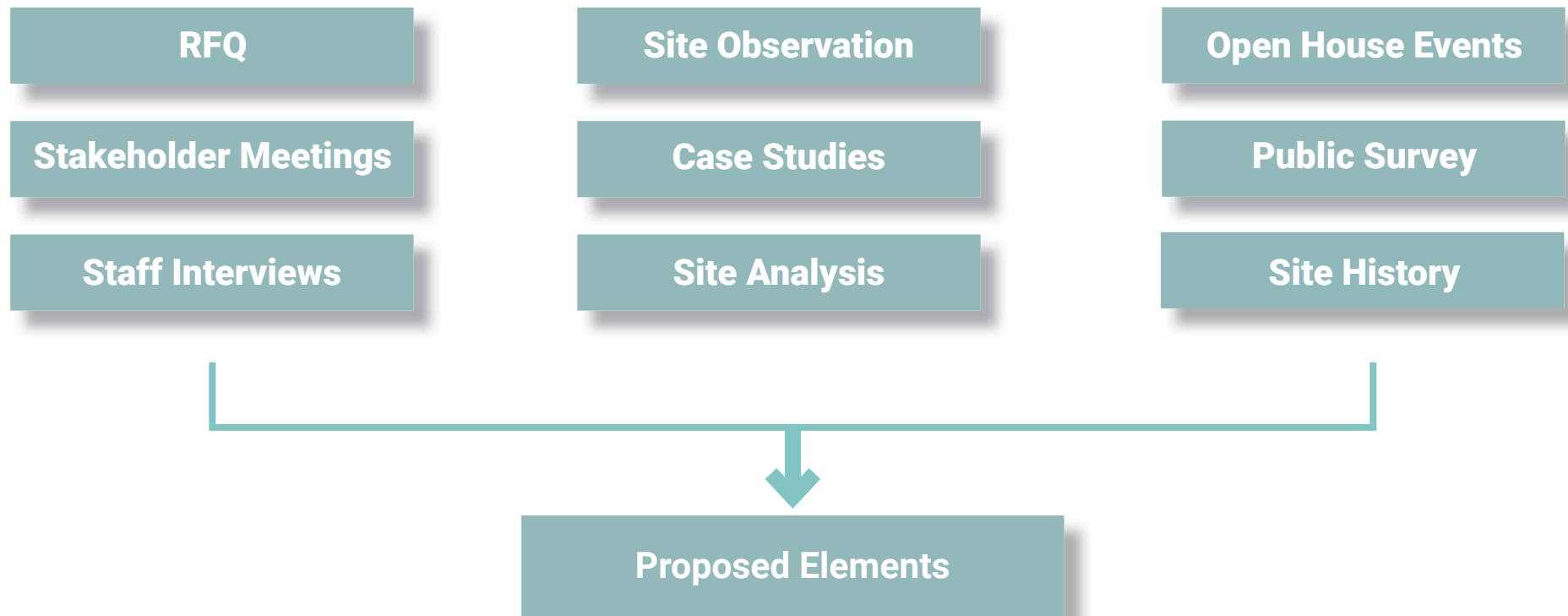
The Arboretum will provide a learning space to showcase the importance of trees, teach people of all ages about natural systems, and support research to further the knowledge of the community and the wider world.

- Education Programs
- Connection with Nature
- Research
- Living Museum
- Importance of the Collection



Proposed Elements

The proposed list of elements was created by collecting information and research from a wide variety of sources, then synthesizing the information into potential projects. The elements are explained on the following pages.



Proposed Elements:

- ACTIVE NATURE PLAY
- BAND STAND
- BIO-RETENTION FACILITIES
- BUFFER PLANTING
- ECOZONE EXHIBITS
- EDUCATION CENTER
- ENTRY ALLEE
- ENTRY SIGNAGE
- EXPANDED OUTDOOR VENUE
- EXPANDED PARKING
- IMPROVED MAINTENANCE AREA
- IMPROVED ROSE GARDEN SIGNAGE
- MEMORIAL GARDEN
- PLANTS OF CENTRAL WASHINGTON
- RESTORED NATURAL AREA
- SECONDARY PATH NETWORK
- SENSORY TRAIL
- LOOP TRAIL
- WINTER GARDEN



Schematic Design

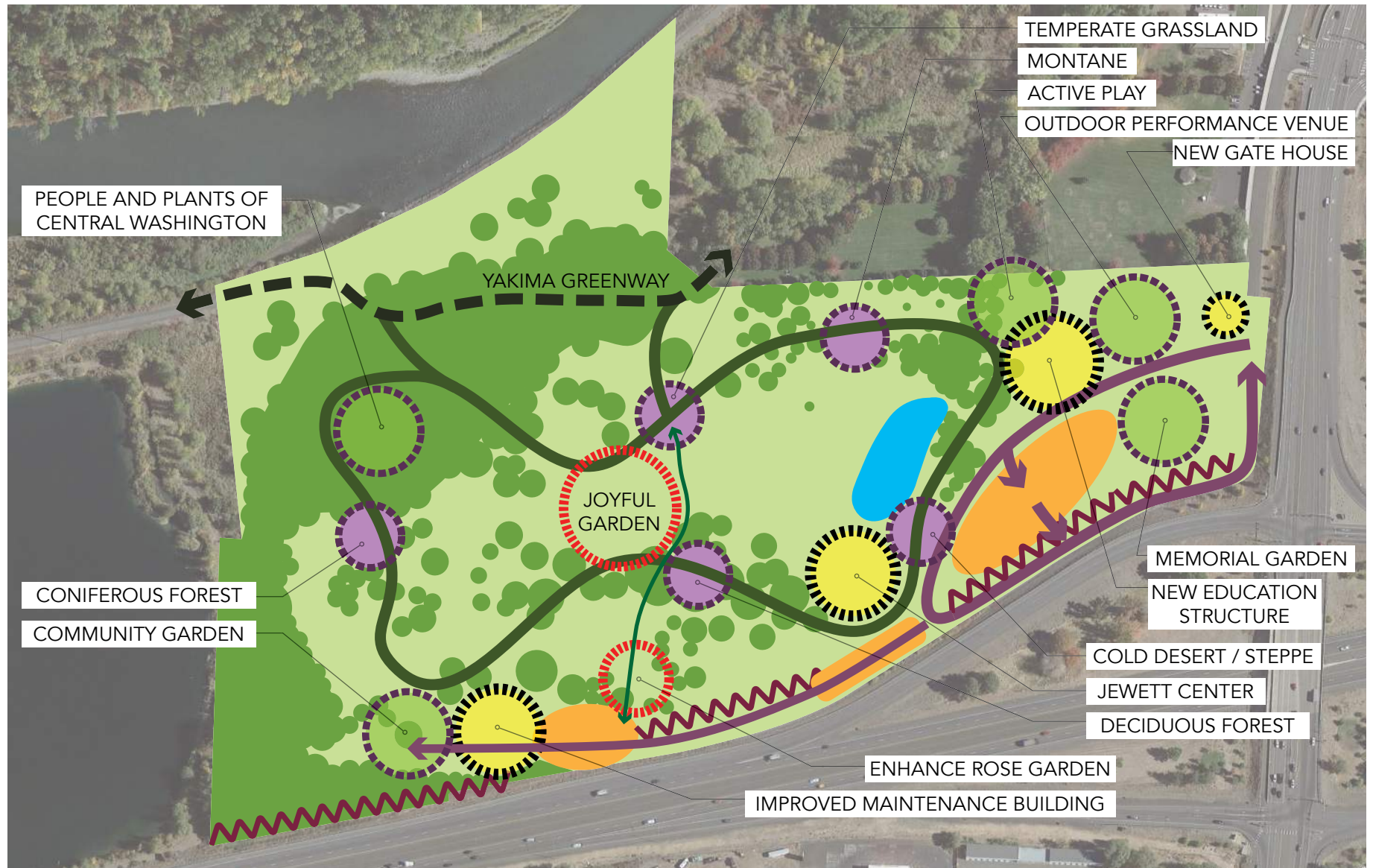
Building on the foundations we had established through our work to date and using the list of elements we had agreed upon, we began to consider different ways these elements might be arranged on the site.

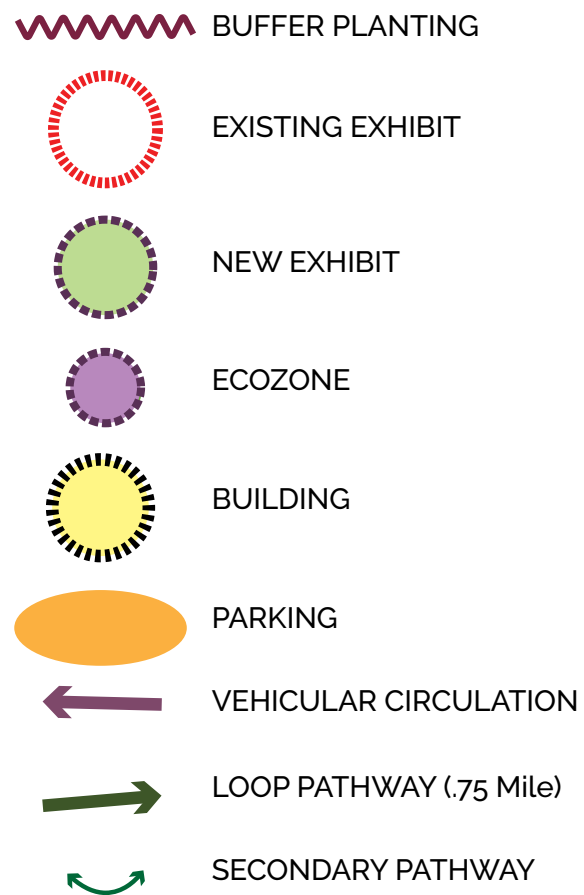
Key considerations included:

- How much space should be allotted for different elements?
- How might proximity and access to maintenance facilities affect placement of elements?
- How would existing site characteristics influence site layout?
- How could new and existing pedestrian circulation elements best provide access to various parts of the Arboretum, and how might the pedestrian experience be enhanced?
- How might new site elements be placed spatially in relationship to each other?
- What changes might be made to the arrangement of maintenance and operations facilities to best serve the Arboretum?
- How could we use circulation systems and the placement of new elements to create a more cohesive experience for guests in all parts of the Arboretum?
- How could we improve the vehicular circulation and parking to function efficiently, add capacity, and ensure a compelling entry experience for guests arriving by car or bus?
- How could we use the progression of experiences throughout the Arboretum to tell a story?
- How could we improve access to all parts of the Arboretum?
- How we might use screening or placement of elements to minimize undesirable noise or views?
- How could we activate lesser used portions of the Arboretum?

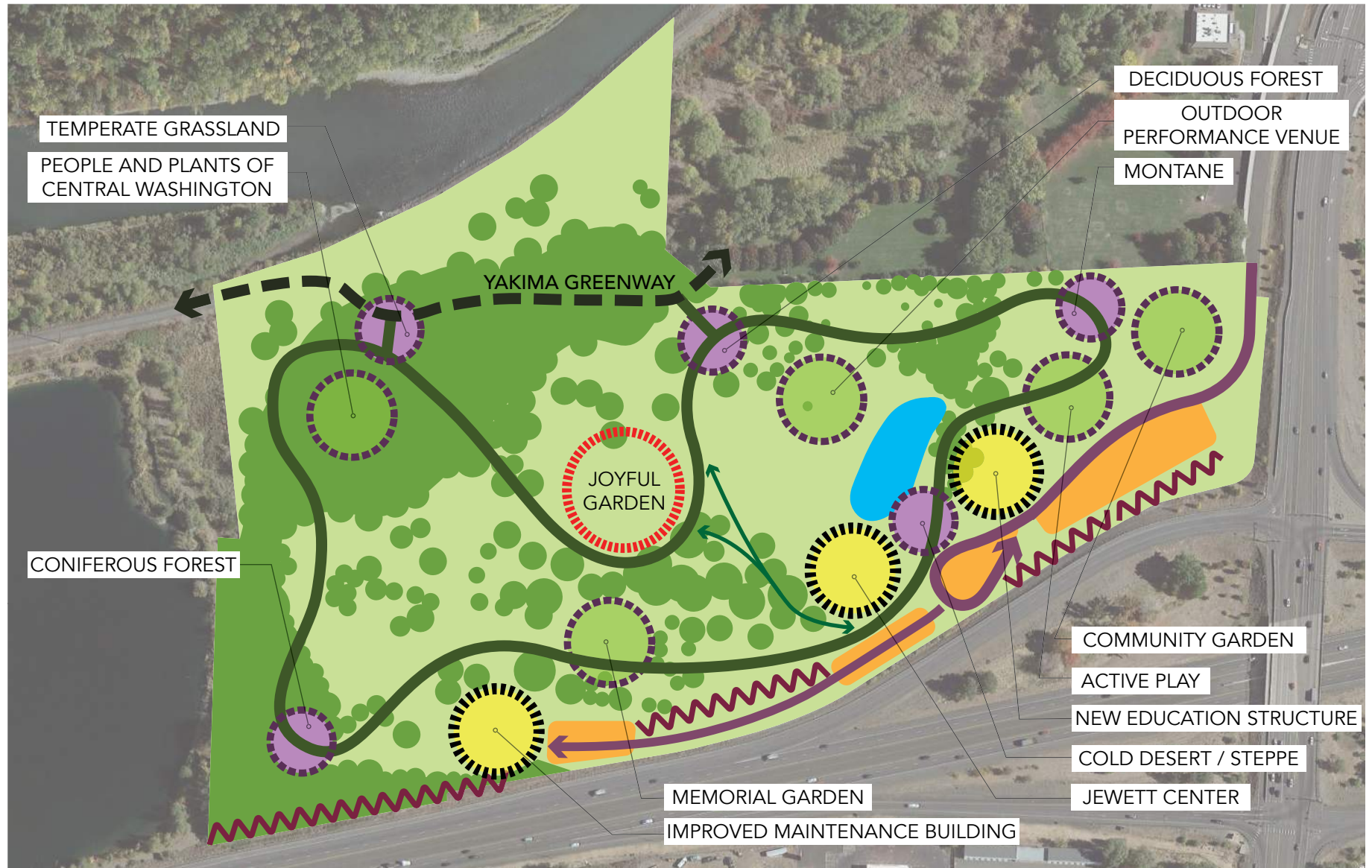
We then proposed three distinct schematic options showing possible placements for pathways, parking areas, driveways, exhibit areas, buildings, and maintenance facilities. We presented these options to the stakeholder group and spent some time walking the grounds with various members of staff to help understand how each of the elements in the three schemes might fit into the landscape.

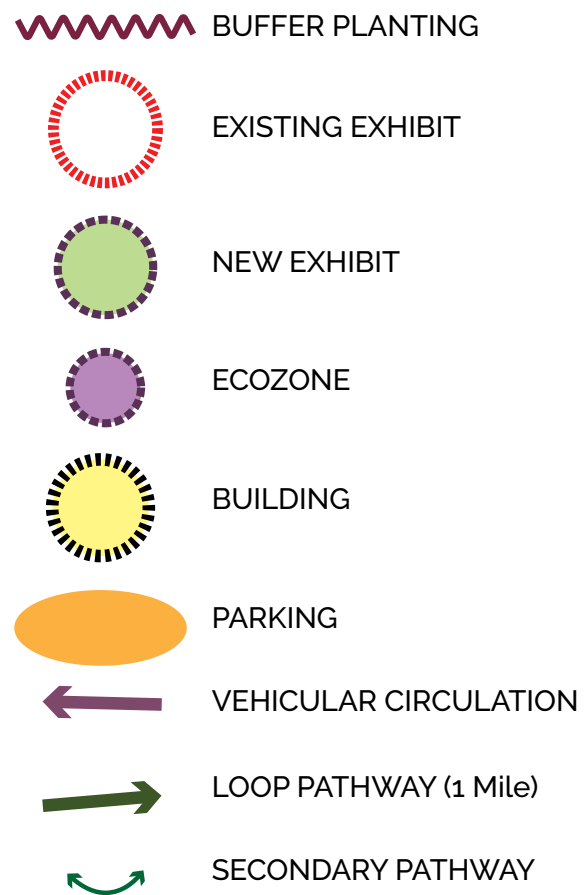
Option One (The Butterfly)



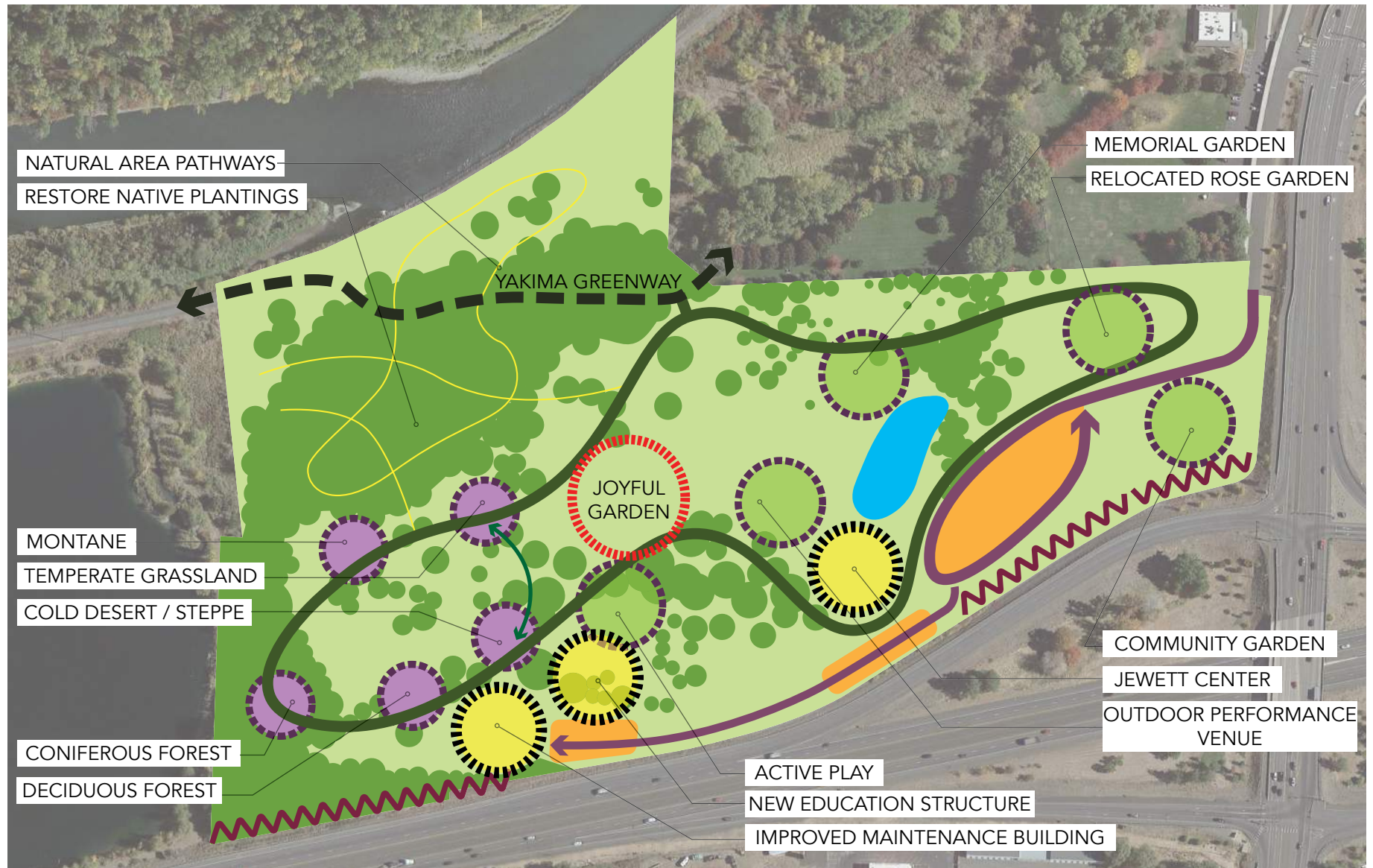


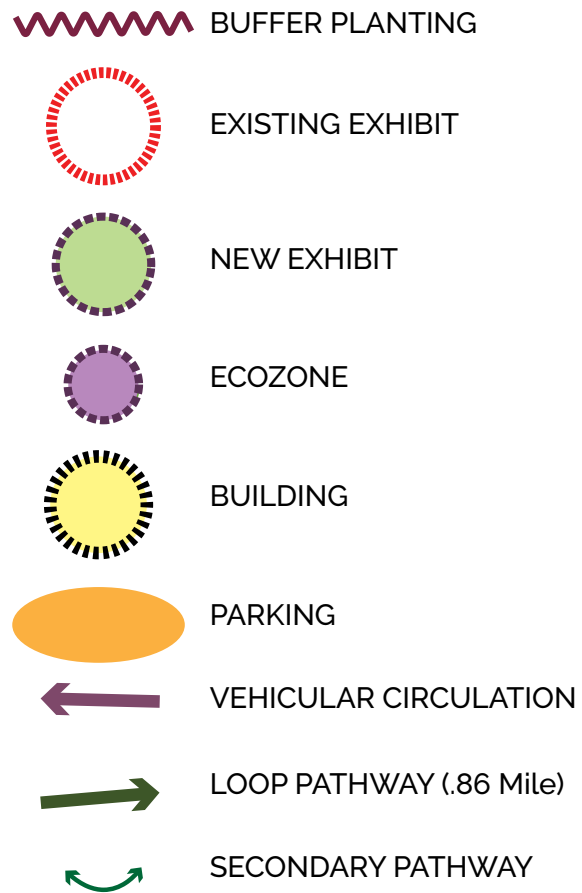
Option Two (The Dolphin)





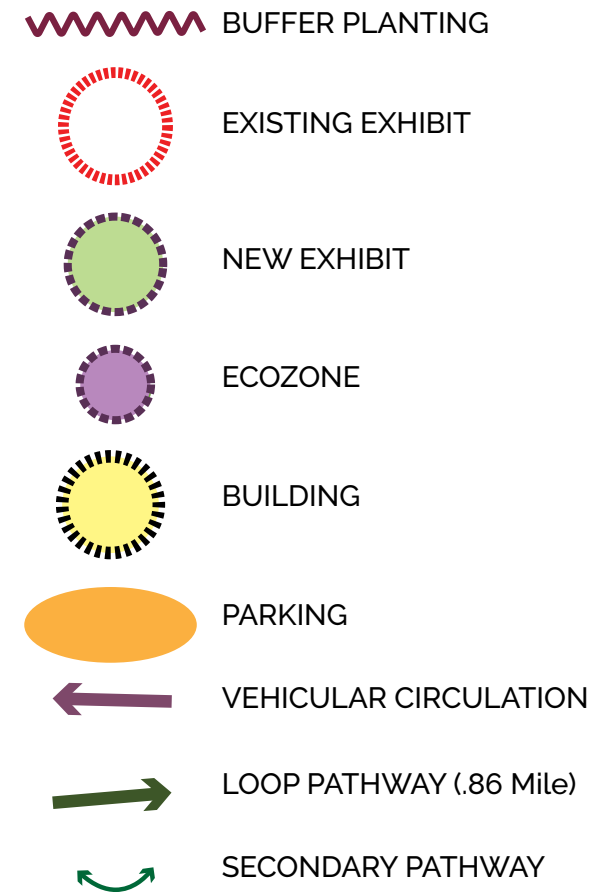
Option Three (The Platypus)



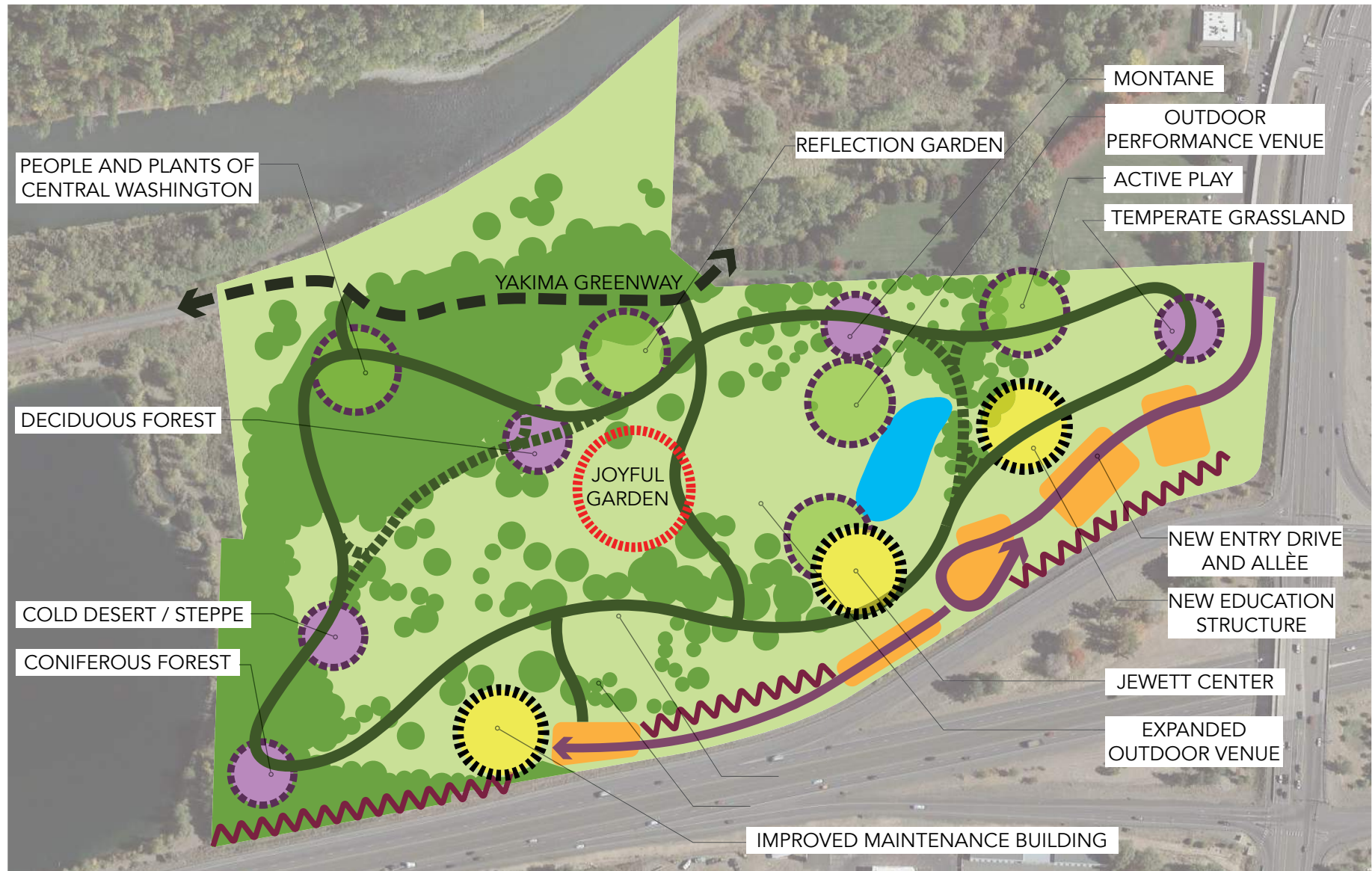


Organizing the Site

A combined option was prepared that synthesizes what we had learned from our discussions, site walks, and input from the Stakeholder group. Another site walk with the overall Stakeholder Group allowed for further refinement, and the adoption of a 'Preferred Option' for schematic design.



Yakima Area Arboretum Site Layout



MASTER PLAN

3

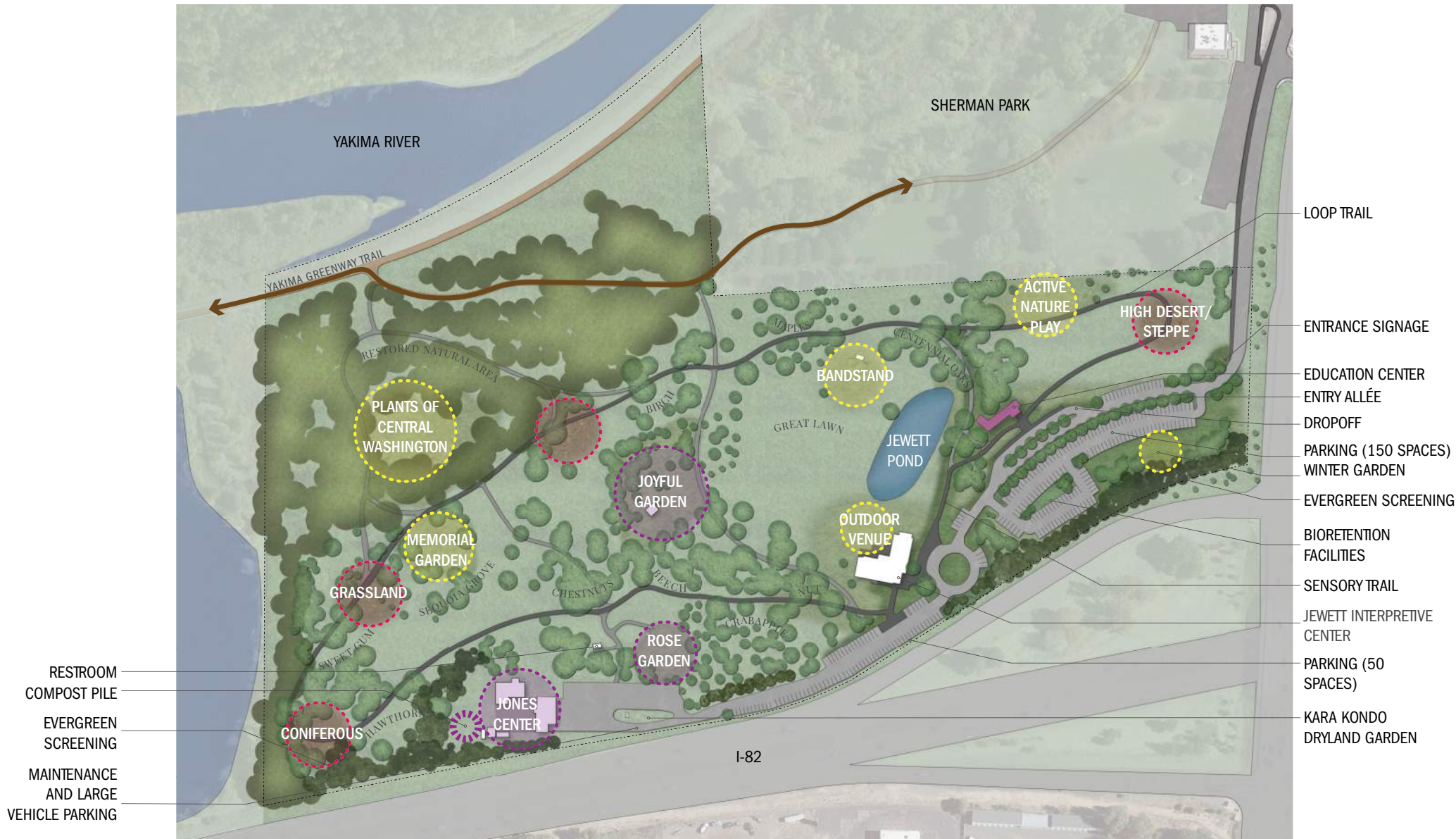
A Revitalized Arboretum

Our Design

Once the preferred option for schematic design was adopted, feedback was sought by the stakeholder group. Once a few minor changes were implemented, the following Master Plan was developed. A more refined plan graphic was prepared and descriptions of proposed improvements were written. This plan will serve as a roadmap for future development at the Yakima Area Arboretum for many years to come, and represents a synthesis of site information, community desires, stakeholder input, and a shared vision for the future.



Yakima Area Arboretum Master Plan



LEGEND



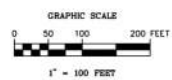
New Amenity



Ecozone Garden



Existing Amenity



New Amenities

Trails

The development of a unified system of pedestrian trails for the entire Arboretum was identified early as a top priority for the Master Plan. Not only will a trail system provide a safe and convenient way for visitors to access all of the amenities the Arboretum has to offer, it can act as an experience unto itself by providing an opportunity to exercise, socialize, and enjoy the natural setting. Each proposed section of trail falls into one of the following categories:

LOOP TRAIL

This is the main trail that will connect all of the major points of interest along one continuous and cohesive loop. This approximately mile long trail will serve as a replacement of the current gravel/lawn path loop. The new trail will be approximately 10' wide and will be surfaced with asphalt. It is anticipated that the entire loop will be accessible. The trail will begin and end at the Jewett Interpretive Center and will provide access to the Education Building, parking area, Greenway entrances, Nature Play Area, Bandstand, Memorial Garden, all four Ecozone Gardens, the Rose Garden, the Joyful Garden, and most of the existing tree collections.

The width, surfacing, and base construction will allow for maintenance vehicles to use the trail as well.

SECONDARY TRAILS

These approximately 8' wide crushed rock pathways will serve four purposes:

1. Provide access from the Loop Trail to amenities that are nearby but not directly accessed by it.
2. Provide shortcut access between parking/loading areas and amenity areas, like the Joyful Garden.
3. Provide connections between the Loop Trail and external pedestrian pathways such as the Greenway.
4. Provide an extension of the loop trail through the natural area.

FOOTPATHS

These narrower crushed rock pathways will be included where occasional travel is expected, or where more intimate experiences are intended. They will serve as minor connectors between larger trails, as nature trails in the east section of the Arboretum, and as internal pathways in new exhibit areas like the Memorial and Ecozone gardens.



Above: Gravel Pathway with Seating
Below: Mile Marking Along Trail

ENTRY DRIVE / NEW PARKING

A new entry drive will connect Arboretum Drive to the parking area and Jewett Interpretive Center. Buses, vans, and cars will have the option to use a drop-off area in front of the Education Building, a new drop-off loop just to the south of the Jewett Interpretive Center, or the existing parking area near the Jones Center for drop-off and turnaround. Most existing parking areas will be maintained, but will eventually serve as overflow parking, staff parking, and bus parking.

A new 150 space primary parking area is proposed in the Shields Addition in the southern portion of the Arboretum that will serve the Jewett Interpretive Center, the Education Building, and as general parking for visitors to the gardens. The entry drive will be lined on both sides with matching rows of deciduous trees, forming an allée to draw visitors into the Arboretum. Moving the main vehicular entry to the south will allow for a greater separation from the interstate highway and ramps and will allow for large scale screening plantings to be installed between the new parking/entry area and the noisy and unattractive roadway. Ample planting and lawn areas will be maintained along with stormwater gardens serving the parking area so that visitors arriving by car will be immersed in a beautiful landscape from the moment they arrive on the grounds. A new gate house will allow for controlled access during events.



Left: Stormwater Plantings
Right: Pervious Parking lot Paving

Buildings

SCREENING

In the absence of any physical barriers being constructed to abate noise and visual impacts of Interstate 82 on the Arboretum, large scale evergreen screening will be installed to create a barrier between the roadway and the interior of the Arboretum. The largest of these plantings should occur in the area between the roadway and the new parking area, with smaller/narrower screening plantings to occur along the I-82 boundary further to the north and In the area between the loop trail and the new compost area to the north of the Jones Center. Incense cedars have been used for this purpose to good effect along some parts of the boundary, and should be considered, along with other species of similar size and character, for new screening plantings.

MAINTENANCE AREA

Upon completion of the new Education Building, interior and exterior spaces at the Jones Center may be re-purposed for maintenance functions. The compost facility currently located in the natural area in the northeast corner of the Arboretum will be relocated to the area to the north of the Jones Center near the current location of the pollinator garden. Plants and functions currently housed at the pollinator garden will be moved and incorporated into one or more of the Ecozone gardens.

EDUCATION

The new education building will serve the needs of the growing education programs at the Arboretum, provide additional venue rental space, and may serve some visitor information and interpretation functions. The approximately 5,000 sf building will sit just south of the Jewett Pond near a stand of existing trees. The building program, size, and configuration will be decided during future efforts, but possible elements may include:

- Classroom/Laboratory Space
- Offices
- Storage Space
- Multi-Purpose Room
- Indoor/Outdoor Restrooms
- Exhibit/Interpretive Space
- Outdoor Classroom
- Cafe



Top Right: Red Butte Arboretum Rose Garden Pavilion, Middle Right: Fullerton Arboretum Education Building
Bottom Right: Bellevue Botanic Garden Education Building

Exhibits and Amenities

MEMORIAL GARDEN

Envisioned as a clearing in the woods, the Memorial Garden would serve as a central focus for remembrance and reflection within the Arboretum. Though some views would be maintained to green spaces within the Arboretum, the garden will be set slightly off the main pathway and will be buffered from it with screen planting so that visitors can gain a sense of solitude. Memorial paving stones, hanging leaf charms, or cenotaphs may be included as opportunities to honor and remember loved ones. A small paving or gathering area, integral seating elements, and a reflection pool have been considered as possible elements. A circular pathway will connect the elements of the garden to each other. The total area of the garden footprint, including buffer planting, is anticipated to be in the 30,000 to 50,000 sf range.

WINTER GARDEN

A small winter garden located between the screening plantings and the new parking area will allow visitors using the parking areas during colder parts of the year to have the opportunity to appreciate a dynamic landscape without venturing too far into the grounds. Plants with beautiful and interesting winter bark, berries, and flowers will be placed against a backdrop of textural evergreen plantings. A small pathway, bench seating, informational signage, and landscape lighting may be included. Total footprint: 10,000 to 20,000 sf.

OUTDOOR PERFORMANCE VENUE / BANDSTAND

A permanent bandstand structure will be placed at the end of the Great Lawn area to the northeast of Jewett Pond, and will serve as a focal point for outdoor plays, concerts, speaking events, and ceremonies. The bandstand may contain a shell, elevated stage, and other amenities needed to support these events. Power and water service will be needed at this location. Audience members and event participants will use the lawn area for informal seating. The bandstand area will be connected to the main parking area, the Education Building, and the Jewett Interpretive Center via the Loop Trail.

PLANTS OF CENTRAL WASHINGTON

In the clearing within the natural area in the northeast part of the Arboretum, in the current location of the compost area, a new exhibit and visitor experience area will be constructed that highlights the plants and wildlife of the area between the crest of the Cascade Range and the valley of the Columbia river. This exhibit will serve as the focal point of the revitalized native plant habitat in the natural area, and may include augmented bird-watching facilities, a native/wildlife garden, natural play features, informal seating, and interpretive signage. The character of all built elements will be in keeping with the more natural and informal nature of this part of the Arboretum. This area may serve as a welcoming entrance to those traveling from the Greenway into the Arboretum from the north.

ACTIVE NATURE PLAY

The Active Nature Play area will give children and families the opportunity to play, learn, and interact with natural play elements such as log scrambles, hill climbs, and naturalistic water elements. An emphasis will be placed on learning opportunities that will connect children with the science behind natural systems and to the wonder of the natural world. This area will be placed in reasonably close proximity to both the education building and the parking area and is intended for use both by children participating in Arboretum education programs and by the general public.



Above: Children's Play Garden at the Chicago Botanic Garden.

Ecozone Exhibits

Two other major themes emerged from our background and visioning work: making a connection between exhibits and natural systems, and adding the additional dimensions of shrub and groundcover layers to some of the plantings. In considering ways to organize new exhibits to further these themes, we considered three possible approaches:

Taxonomic: Taxonomic arrangement, or the grouping of trees with their close relatives by genus, was by far the most common approach when the Arboretum was developed, and this form of arrangement forms the foundation for most arboretums around the world. Thus, elms, wherever they exist within natural systems in the world (ie Europe, Eastern North America, or Asia), are grouped with other elms, etc. The Yakima Area Arboretum is primarily composed of collections that have been arranged in this way. This approach has been particularly successful here, as the generous spacing of individual trees with similar character in wide expanses of lawn has helped to create serene landscape. In our planning efforts, we heard from many stakeholders that a high premium should be placed on preserving and enhancing this collection, and that new exhibits and collection plantings should be carefully integrated with it. Drawbacks to continuing this approach, include the fact that the total cover provided by trees that exist today is expected to approach the maximum of what is appropriate as they mature, that this approach does not display these trees in the context of the habitats where they grow in the wild, and that no shrub or groundcover layers exist.

Ecogeographic: This approach to botanical garden exhibit organization attempts to recreate in as complete a way as possible the plant community in a particular location on earth. A location is chosen that may have a similar climate to the botanical garden in question and the trees, shrubs, and groundcovers that make up the plant community in this location are displayed growing together as they might in the wild. An example of this is the Pacific Connections Gardens at the Washington Park Arboretum in Seattle, where five locations from around the Pacific Rim have been chosen for representation. Advantages of this approach include the fact that it provides the most accurate recreation possible of a plant community and can impart ecological themes about how plants grow together in a community. Disadvantages are that plants may be difficult to procure for collection development, and most are unavailable to home gardeners who may be inspired by seeing the collections. Plant choices are limited to species growing in only one place.

Ecozone: Plant collections arranged by ecozone display trees shrubs, and groundcovers that grow in a general habitat type from around the world. Hence, plants found in deciduous forests in Western Europe, Eastern North America, and China are grouped together. In this way, information about habitat types can be conveyed, including how shrubs and groundcovers grow in relationship to trees and each other. The experience is similarly immersive to the ecogeographic approach but offers two distinct benefits that ecogeographic arrangement does not. Firstly, the much wider plant palette available will allow for the selection of plants to emphasize varieties that are easy to procure during development and may be available for home gardeners. Secondly, this approach allows for some of the new exhibit areas to be integrated with existing collection themes. For instance, the several species of linden trees that are found in that existing collection hail from deciduous forests in Europe, Asia, and Eastern North America. The addition of trees, shrubs and groundcovers from these and similar deciduous forests around the world will allow for the display of habitat type while using the existing collection as a basis. Other habitat types that include less tree species can be added in place of lawn in other parts of the Arboretum.

Upon considering these three options, it was decided that the Ecozone approach was most appropriate as a theme for new exhibit development at the Yakima Area Arboretum. Criteria for selecting which types of habitats would be represented included cold-hardiness compatibility, contents of existing collections, and the distribution of various ecozones across the planet. The following are ecozones chosen for representation:

- **Deciduous Forest**
- **Coniferous Forest**
- **Temperate Grassland**
- **High Desert/Steppe**

The following pages explore each Ecozone in more detail.

Each ecozone exhibit will occupy a space of 40,000 to 50,000 sf. Each exhibit will be transected by the main pathway and will contain at least one looping secondary pathway. Bench seating and interpretive signage showing a world ecozone map will be included. Plantings will consist of a mixture of trees, shrubs, perennials, and groundcovers that are native to the represented ecozone in locations around the world. The proportions of trees and larger plants to smaller plants will depend upon which zone is being represented. Plants from these areas will be mixed together in the whole exhibit rather than grouped per each geographic area. Plant labels will indicate which geographic area each species is from. Plants will represent a mixture of straight species and cultivated varieties. Most plants may be chosen from among those that are generally available in the mainstream nursery trade, but up to 20% of the plant material in each zone may, at the discretion of the designer and project team, be more unusual specimens that are wild-collected, donated from private sources, or purchased from specialty nurseries. A sense of enclosure is encouraged, allowing for a greater feeling of immersion into each ecozone environment. This may be achieved by the use of plant materials large enough to create a visual screen near the outer edges of each ecozone exhibit. Visual connections into and out of these exhibit areas should be maintained to a degree, however, balancing the concept of immersion with a need for cohesiveness and safety.



Ecozones

CONIFEROUS FOREST



In areas where enough rainfall exists to support trees, but the rainfall patterns, topography, soil quality, and colder temperatures make it difficult for deciduous forests to thrive, the vast coniferous forests of the world fill the niche. These are the deep evergreen forests of Northern and Western North America, Northern Europe, and Siberia. Because they exist in harsher environments with fewer people, most of these forests either remain intact or are managed for timber production.



Ecozones

DECIDUOUS FOREST



When we think of trees, the oaks, maples, beeches, and elms of the world's deciduous forests perhaps come most easily to mind. These are the iconic forests of Eastern North America, East Asia, and most of Europe. The trees are common sights in our cities, having been planted extensively along our streets, and in our parks, campuses, and yards. Their wood composes much of the cabinetry, furniture, and casework in our homes. Most of the existing collection trees at the Yakima Area Arboretum have their origins in these forests. They often have a rich and diverse understory layer, with their shrubs, perennials, and groundcovers used in landscapes around the world. They occur in temperate areas with moderate to moderately high rainfall, usually at lower elevations on relatively good soils. These conditions also favor agriculture, which helps to explain why most of these habitats have been heavily altered over time.



Ecozones

COLD DESERT / STEPPE



When most people around the world think of deserts, the saguaro cactus of the Sonoran Desert or caravan crossing the dunes of the Sahara might come to mind. But residents of Mongolia, Patagonia, the Great Basin, and right here in Yakima know a different kind of desert, one that might just as well feature snow drifts as sand dunes. These are the cold deserts and shrub steppes of the world. In North America, they extend as far south as the mountains of Northern Mexico and find their northern limits here in the Columbia Basin, where they are dominated by fescue, sagebrush, bitterbrush, and a host of wildflowers. This combination of low grasses with dryland shrubs and hardy wildflowers typifies this habitat type wherever it is found, although much diversity exists due to their distribution across the continents. Cacti are often present but play a more minor role here than they do in the hotter deserts. In Asia, the cold deserts form a band that extends from central Turkey all the way to northern China. In South America, the austere open landscape of Patagonia falls into this category as well. The North American Shrub Steppe is an increasingly threatened habitat type as more land is converted to agricultural use. Because it is the native habitat type for the area around Yakima, the Cold Desert/Shrub Steppe habitat will be a focal point for the Ecozone Exhibits.



Ecozones

TEMPERATE GRASSLAND



Occupying a niche between forest and desert habitats, temperate grasslands are found on six continents. The vast Great Plains of North America, the Pontic Steppe of southern Russia, the Pampas of South America, and the Veld in South Africa are all examples of this diverse ecosystem type. While some trees and shrubs exist along stream and river valleys, vegetation is dominated by tall grasses and perennial forbs. Most perennials and ornamental grasses used in horticulture hail from this habitat type. For most of human history, these expanses of grassland have been dominated by nomadic peoples who either hunted or herded across the landscape. In more recent times, they have become centers of agriculture, and provide most of the world's production of cereal grains. Because of this conversion to agricultural land, few native temperate grasslands remain intact.



Improvements to Existing Amenities

Joyful Garden

The basic structure and plantings of this successful garden should be maintained as they are, with an emphasis applied to preservation and minor augmentations. Plants should continue to be carefully pruned and maintained. Carefully chosen additions may be made to add balance, texture, and interest to the plantings. The major master plan impact on this area will be the additional accessibility provided by new pathways leading to the garden entrance from other parts of the Arboretum.

Parking Lots

Existing parking lots will be maintained as they are, but will be converted for use for overflow, bus, and event parking, and as a means for those with mobility challenges to park more closely to exhibits in the north sections of the Arboretum. Upon completion of the new parking/entry drive/drop-off loop, a driveway will connect the drop off loop with the existing parking areas. A gate or bollards may be installed to control access to these areas.

Harold Jones Center

If education functions are moved to other parts of the Arboretum, the Jones Center buildings and the immediate surrounding area will be converted to maintenance, storage, and operations uses. The grassy area to immediately to the north containing the pollinator garden will be converted to use as a compost area, with screening plantings installed between this area and the Loop Trail. Plants and interpretive elements from the current pollinator garden will be incorporated into the Ecozone gardens in other parts of the Arboretum.



Above: Joyful Garden
Below: Parking lot in front of the
Jones Center

Natural Area

This is the largely undeveloped area in the northeast portion of the Arboretum. Due to changing hydrology brought about when the nearby quarry stopped pumping water out of its pit, major impacts to the vegetation in this area have occurred. Most of the large cottonwoods that form the major tree canopy here are in visible decline, and many have begun to lose branches or fail entirely. A comprehensive plan for the removal of the dead and dying trees and revegetation with more drought tolerant native plants should occur. While a desire has been expressed to activate this area and better integrate it with the rest of the Arboretum, this area should remain as a representation of a healthy native ecosystem. Plants native to this area from the crest of the Cascade Mountains down to the Columbia River should be used in the revegetation plan, with an emphasis being placed on plants that provide habitat and food for birds and other local wildlife. If possible, irrigation may be added in some areas to assist with plant establishment or to support riparian plants. This will depend upon availability of water resources.

The Plants of Central Washington exhibit will replace the compost area as the focal point in this part of the Arboretum. A secondary pathway will connect this exhibit to the Loop Trail and the Greenway Trail and will provide its own secondary loop through the natural area. Existing and new smaller footpaths will provide opportunities to explore this area on a smaller scale. Interpretive signage will build upon what is existing and will describe local plants and their importance to people and wildlife.



Below: Natural Area Pathways,
and Compost Pile

Wayfinding and Signage

Wayfinding and signage will be designed to follow a hierarchy with the following levels:

HIGHWAY SIGNAGE

These fall into two categories, one on Arboretum property and the other along public rights-of-way. On Arboretum property, the large sign with a reader board that has been built near the Jones Center along Interstate 82 may have outlived its usefulness. The aesthetics are a bit dated, and the need for a public reader board should be reassessed when appropriate.

The second category of highway signage consists of road signs along Interstate 82 and Nob Hill Road that help direct traffic to the Arboretum. While these signs are under the control of public agencies, it may be possible to lobby these agencies for the inclusion of larger, more numerous, or more descriptive signage. Technology may again move this further down on the priority list, since most visitors who are not familiar with the local area will use gps technology to find the entrance to the Arboretum.

VEHICULAR ENTRY SIGNAGE

As the Shields Addition lawn area is redeveloped, a new vehicular entry sign should be placed near the gate. The sign should be large and welcoming, and may include directional signage to help orient visitors and help guide them to the appropriate parking or dropoff area.

PEDESTRIAN ENTRY SIGNAGE

These entry signs should be smaller in scale, and should be placed where major pedestrian pathways enter the Arboretum. This would include the connection to the sidewalk along Arboretum Drive and the 2-3 places where major trail connections occur along the eastern boundary. They should be of pedestrian scale and should include a schematic map of the Arboretum, along with general visitor information.



EXHIBIT INTERPRETIVE SIGNAGE

These signs should be of moderate scale and should be placed where major pedestrian pathways enter exhibit areas. In some cases, as with the Reflection Garden, one sign may be placed along the small pathway that connects the Loop Trail to the interior of the Garden. In cases where the Loop Trail moves through an exhibit area, as in the Ecozone Exhibits, a pair of matching signs may be placed at each point of entry and be oriented toward pedestrians arriving in the space. Interpretive signage will tell the overall story of the individual exhibit area where it is placed, and may include supporting graphics.

SPECIFIC INTERPRETIVE SIGNAGE



Left: Highway Signage
Right: Shields Addition Sign

These smaller signs will help convey more detailed information either in smaller exhibit areas or within larger exhibit areas. An example might be a sign that is placed within the Cold Desert/Shrub Steppe Exhibit that discusses the role of pollinators in this type of habitat and the way that pollinator-friendly plantings have been incorporated.

TREE/PLANT LABEL SIGNAGE

This will be a continuation and augmentation of the current system of signage that identifies individual plant species. In-ground plaques are the most durable way to accomplish this but can be cost prohibitive. Branch tags are effective but can be difficult to find and must be maintained carefully to avoid causing damage to plants. Solutions involving mobile phone gps technology are becoming more and more usable, and should be considered as a future direction for plant labeling.

These recommendations are of a general nature. It is recommended that consultant specializing in graphic design be engaged to prepare a full wayfinding and signage plan to build upon these principles.



Top and Bottom Left:
Exhibit Signage
Right: Plant ID Signage



Jewett Outdoor Spaces

The small terrace and pergola area to the northeast the Jewett Interpretive Center is used extensively for outdoor events. It is typical for small gatherings to occur on the terrace, and for larger gatherings to occur on the adjacent lawn, typically under a portable canopy. Improvements that might be made to this area to increase its capacity and appeal for outdoor events include:

- Expanded terrace area to allow for additional event seating and possibly to allow for permanent seating for an outdoor lounge or café area.
- Expanded pergola to help define the space, provide shade, and provide support for grape or hop vines.
- Expanded planting areas to include a rich textural mix of grasses, perennials, roses, and other smaller flowering shrubs.
- Space for a band, dj, or other small performances.
- Overflow space to allow events held inside the Jewett Interpretive Center to engage more fully with the outdoors.



Top: Rose Garden Venue at the
University of Minnesota
Middle: Bandstand Structure
Bottom: Grape Vine Trellis

Implementation Strategies

Implementation Committee

It is recommended that a standing committee of the Board of Directors be formed to oversee implementation of the Master Plan over time. This committee might include 1-2 staff members and 2-3 board members, and might include 1-2 community members. It is recommended that at least one of the board members selected for the committee have experience in the architecture, landscape architecture, engineering or construction fields.

The first order of business for this committee would be to review the list of potential projects envisioned by the Master Plan and assign a rating system to them. This may take the form of 'low, medium, or high,' priority designation, a numbered rating from 1-10 being applied to each project, or simply a list beginning with the highest priority project and ending with the lowest. Factors used in preparing this list may include:

- Availability of general funding.
- Donor interest.
- Availability of grant funding.
- How a project may enable or affect other projects or Arboretum functions.
- Assessment of project impacts on health and safety of users.
- Assessment of the level of importance to the community.
- Assessment of whether programs associated with the project have demonstrated a current need for the improvements.
- Project cost.

Once prepared, the list should act as a guide for allocation of funds and priorities. It can also be the catalyst for the preparation of donor information materials, giving a potential donor a manageable list of higher priority projects to choose from when considering where they might direct a gift. This list should be updated annually or biennially based on ongoing changes to the variables listed.

Project Management

For most projects, it will be advisable to engage the services of a professional project manager to serve as the Arboretum's agent during the design and construction process. This consultant would manage the rfq process, the design process, and permit procurement, and would play an oversight role during construction. It is likely that the city Parks Department has these capabilities within its staff, and opportunities to partner with them on these projects may exist.

The Master Plan Implementation Committee should serve as the final decision-making body during the design and construction phases of all projects. For larger projects, the committee may empanel a project review team that would meet weekly with the project manager, design consultants, and contractor during implementation and report back to the committee.

Fundraising

Using the Project Priority List as a basis, prepare a package of informational graphics for potential donors. Choose 5-7 projects from the high end of the priority list, making sure to include projects at a variety of scales and areas of potential interest. Provide a written description and some supporting photos and other graphics along with general budget and timeline information. The packet might be 5-10 pages long and can be presented on donor visits or made available at events.

A master plan can be a powerful tool in the seeking of public and private grants. Look for grant opportunities with the Recreation and Conservation Office, the Washington State Department of Ecology, or private organizations involved in recreation and public health. Consider partnerships with government agencies when preparing applications for these grants.

Promote both the plan graphic and the Master Plan document widely using your website, social media, and at events. Make reduced versions of the plan graphic available, and consider putting large scale reproductions on display both temporarily at events, and permanently within the Jewett Center.

LIST OF FIGURES

Page Number	Figure	Page Number	Figure
Cover	1: Morse Landscape Architecture Site Photo	32	30: Morse Landscape Architecture Site Photo Collection: Shields Extension
Back	2: Morse Landscape Architecture Site Photo	33	31: Morse Landscape Architecture Site Map: Joyful Garden
Cover	3: Morse Landscape Architecture Site Photo	34	32: Morse Landscape Architecture Site Photo Collection: Joyful Garden
6	4: Photo of the City of Yakima	35	33: Noise Assessment Color Contour Map, Stantec
7	5: Morse Landscape Architecture Site Photo	36	34: Morse Landscape Architecture Site Photo
8	6: Columbia Basin Hydrology Map	38	35: Morse Landscape Architecture Site Photo
9	7: Yakama Tepee, US Library of Congress	40	36: Morse Landscape Architecture Stakeholder Session Photo
10	8: Historic Photo of Yakima, Yakima Arboretum Historic Archive	40	37: Morse Landscape Architecture Stakeholder Session Photo
11	9: City of Yakima Photo	42	38: Morse Landscape Architecture Site Photo
11	10: Historic Photo of Yakima Arboretum Construction, Yakima Arboretum Historic Archive	43	39: Morse Landscape Architecture Site Photo
12	11: Historic Photo of Yakima Arboretum Construction, Yakima Arboretum Historic Archive	44	40: Morse Landscape Architecture Site Photo
12	12: Foothills of Yakima	46	41: Site Layout Option One
13	13: Morse Landscape Architecture Site Context Diagram	48	42: Site Layout Option Two
15	14: FEMA National Hazard Map	50	43: Site Layout Option Three
17	15: Morse Landscape Architecture Site Circulation Diagram	52	44: Finalized Site Layout Plan
18	16: Morse Landscape Architecture Site Photo	55	45: Morse Landscape Architecture Site Photo
19	17: Morse Landscape Architecture Site Collection Diagram	56	46: Morse Landscape Architecture Site Photo
20	18: Morse Landscape Architecture Site Observation Areas Diagram	57	47: Yakima Area Arboretum Master Plan
21	19: Morse Landscape Architecture Site Map: Natural Area	58	48: Gravel Pathway Example
22	20: Morse Landscape Architecture Site Photo Collection: Natural Area	60	49: Trail Marking Example
23	21: Morse Landscape Architecture Site Map: North Complex	60	50: Impervious Paving Example
24	22: Morse Landscape Architecture Site Photo Collection: North Complex	61	51: Parking Lot Planting Example
25	23: Morse Landscape Architecture Site Map: South Complex	61	52: Red Butte Arboretum
26	24: Morse Landscape Architecture Site Photo Collection: South Complex	62	53: Fullerton Arboretum Education Building
27	25: Morse Landscape Architecture Site Map: Tree Collection (North)	62	54: Bellevue Botanic Garden Education Building
28	26: Morse Landscape Architecture Site Photo Collection: Tree Collection (North)	62	55: Chicago Botanic Garden Children's Garden
29	27: Morse Landscape Architecture Site Map: Tree Collection (South)	63	56: Chicago Botanic Garden Children's Garden
30	28: Morse Landscape Architecture Site Photo Collection: Tree Collection (South)	63	57: Ecozone Collection Photos
31	29: Morse Landscape Architecture Site Map: Shields Extension	65	58: Coniferous Forest Global Map



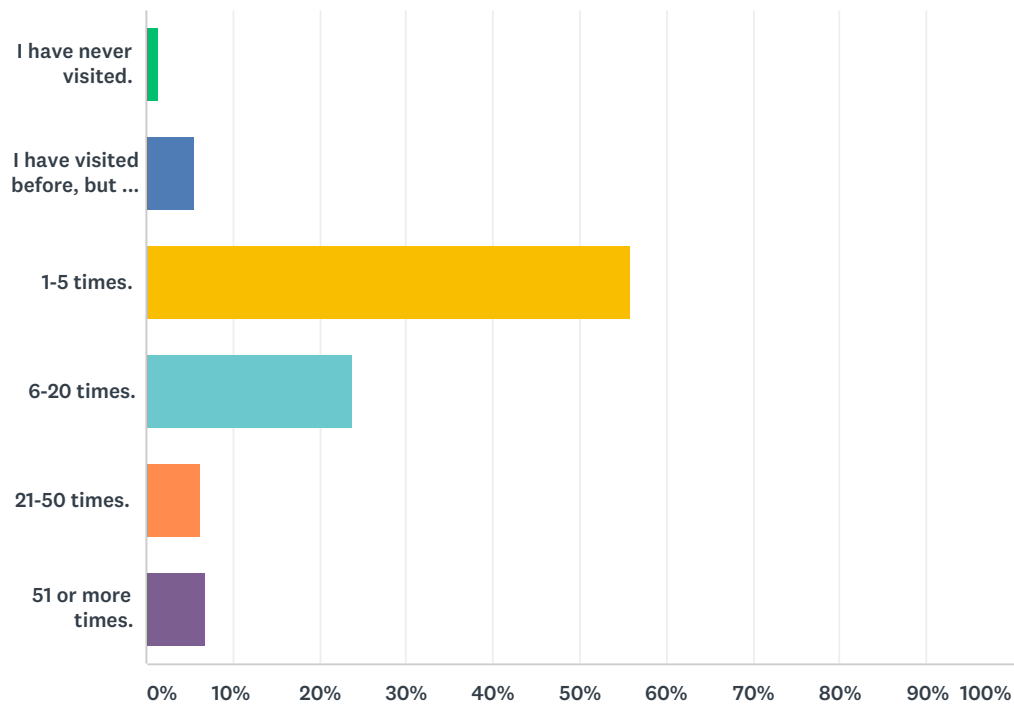
Page Number	Figure
66	59: Coniferous Forest Photos
66	60: Deciduous Forest Global Map
67	61: Deciduous Forest Photos
67	62: Cold Desert/Steppe Global Map
68	63: Cold Desert/Steppe Photos
68	64: Temperate Grassland Global Map
69	65: Temperate Grassland Photos
69	66: Morse Landscape Architecture Site Photo
70	67: Morse Landscape Architecture Site Photo
70	68: Morse Landscape Architecture Site Photo
71	69: Morse Landscape Architecture Site Photo
71	70: Morse Landscape Architecture Site Photo
71	71: Morse Landscape Architecture Site Photo
72	72: Morse Landscape Architecture Site Photo
72	73: Morse Landscape Architecture Site Photo
73	74: Morse Landscape Architecture Site Photo
73	75: Morse Landscape Architecture Site Photo
73	76: Rose Garden at the University of Minnesota
74	77: Bandstand Structure at the Harvard Arboretum
74	78: Grape Vine Trellis Example

SURVEY RESULTS



Q1 During the past year, I have visited the Yakima Area Arboretum:

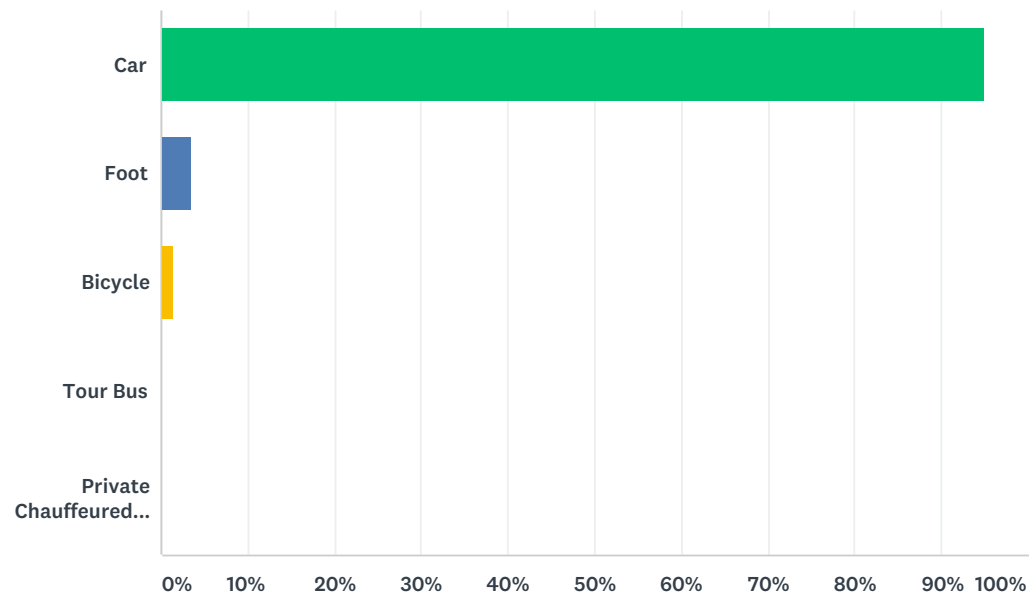
Answered: 143 Skipped: 0



ANSWER CHOICES	RESPONSES	
I have never visited.	1.40%	2
I have visited before, but not during the past year.	5.59%	8
1-5 times.	55.94%	80
6-20 times.	23.78%	34
21-50 times.	6.29%	9
51 or more times.	6.99%	10
TOTAL		143

Q2 On a typical visit (excluding Luminaria) I arrive by:

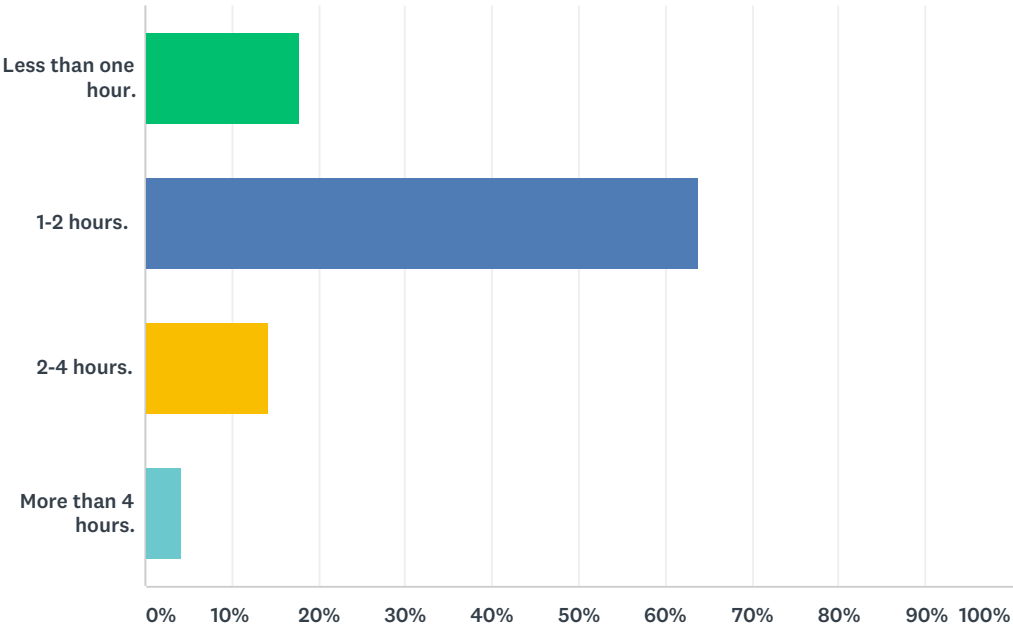
Answered: 141 Skipped: 2



ANSWER CHOICES		RESPONSES	
Car		95.04%	134
Foot		3.55%	5
Bicycle		1.42%	2
Tour Bus		0.00%	0
Private Chauffeured Vehicle		0.00%	0
TOTAL			141

Q3 On a typical visit, I spend:

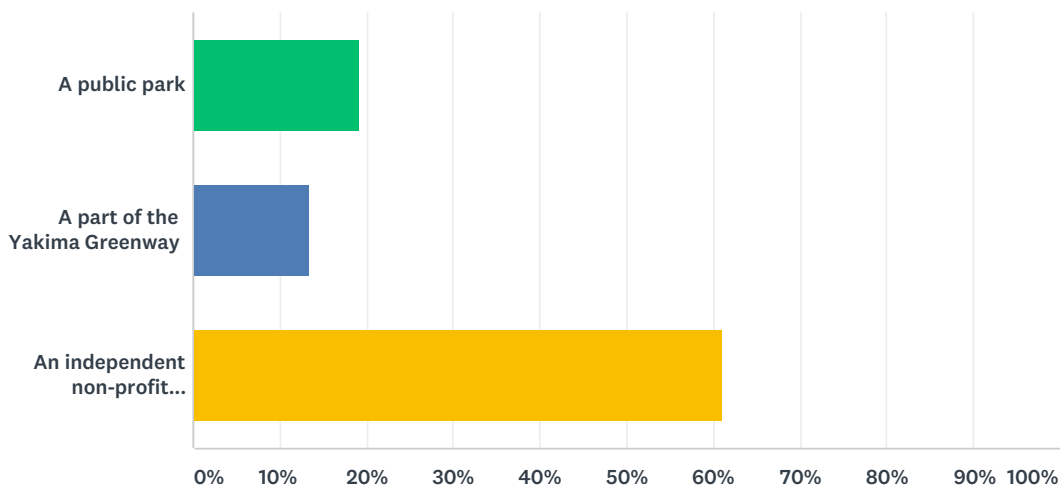
Answered: 141 Skipped: 2



ANSWER CHOICES	RESPONSES	
Less than one hour.	17.73%	25
1-2 hours.	63.83%	90
2-4 hours.	14.18%	20
More than 4 hours.	4.26%	6
TOTAL		141

Q4 I generally think of the Yakima Area Arboretum as:

Answered: 141 Skipped: 2

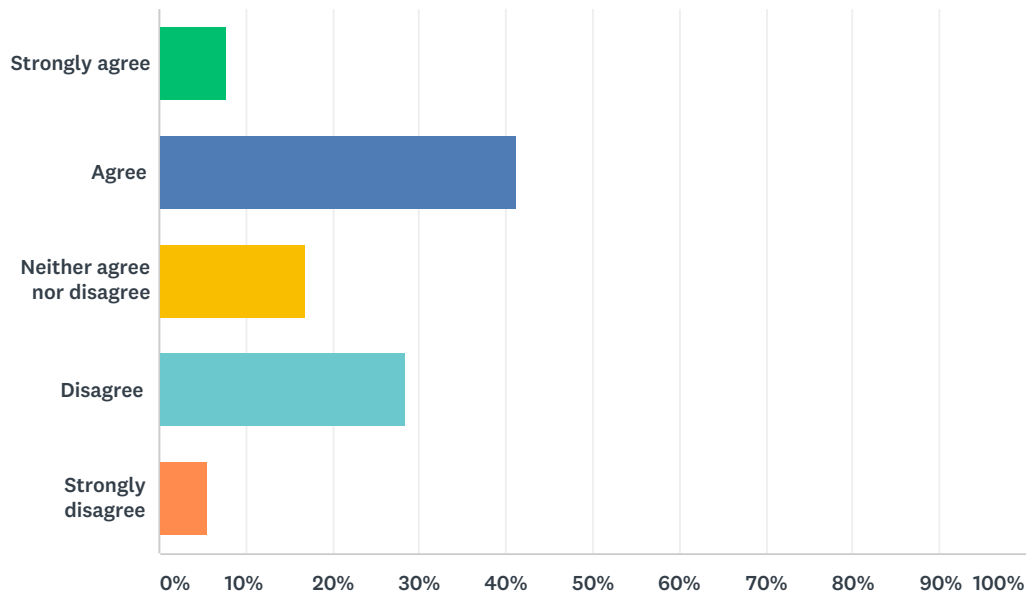


ANSWER CHOICES	RESPONSES
A public park	19.15% 27
A part of the Yakima Greenway	13.48% 19
An independent non-profit organization	60.99% 86
TOTAL	141

#	OTHER (PLEASE SPECIFY)	DATE
1	A park with a learning component	9/15/2019 3:34 AM
2	All the above	9/11/2019 10:24 PM
3	A public park, although I know it's a non-profit	9/11/2019 2:28 PM
4	A meeting space	9/11/2019 9:47 AM
5	my back yard :) who am i ?	8/25/2019 10:24 AM
6	Didn't know about it and I've lived here for going on 3 years now. Shame on me:(8/21/2019 4:49 AM
7	All of the above!	8/17/2019 8:00 AM
8	A Public Garden	8/16/2019 3:59 AM
9	An enchanting outdoor treasure	8/13/2019 11:16 AM
10	Combination of all three	8/13/2019 3:25 AM
11	helpful place for people to learn about nature.	8/13/2019 2:23 AM
12	also a community educational facility	8/5/2019 3:12 PM
13	A live tree museum	7/31/2019 2:59 AM
14	A museum of Trees, FLora & Fauna	7/24/2019 6:08 AM

Q5 Freeway and other road signage is adequate in helping visitors find the entrance to the Arboretum.

Answered: 141 Skipped: 2



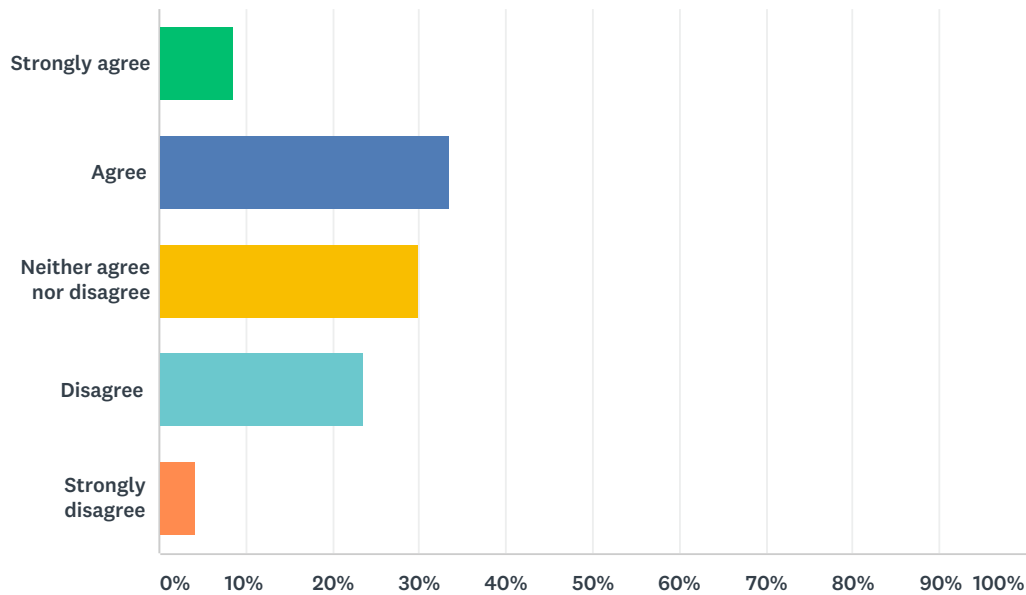
ANSWER CHOICES	RESPONSES	
Strongly agree	7.80%	11
Agree	41.13%	58
Neither agree nor disagree	17.02%	24
Disagree	28.37%	40
Strongly disagree	5.67%	8
TOTAL		141

#	ADD A COMMENT:	DATE
1	It's a little odd the first time, but then it's easy to find.	9/11/2019 2:32 PM
2	Roadway signage could be better coming from Yakima	9/11/2019 2:28 PM
3	I am local, so know where I am going.	9/11/2019 9:58 AM
4	I've been going there so long, I don't remember what my initial response was when trying to find it.	9/11/2019 9:24 AM
5	Some of the signage can be hard to see if you're not looking for it.	9/11/2019 9:22 AM
6	sign is old and dull and hardly visible when you pull off of nob hill/sr 24	8/25/2019 10:24 AM
7	Need more signage from the highway and to direct cars to the entrance	8/19/2019 3:40 PM
8	Signage could be improved.	8/18/2019 7:42 AM
9	Signage is too small and the colors too muted	8/13/2019 11:16 AM
10	The sign I notice the most is the events letterp-board. By then a person has traveled past the exit. I'm wondering if asking the state for a sign akin to parks and historic monuments would be successful?	8/6/2019 11:58 AM
11	need better signage	8/6/2019 7:19 AM

12	Very tiny signs from road, entrance sign not in the right place	8/5/2019 5:05 AM
13	Not visible enough	8/1/2019 2:28 PM
14	I've never thought of this too much because I know how to get so don't think of the signage. It might help with public awareness putting signs for the freeway exits; one of those tourist attraction type signs. Also a sign showing where to turn off Nob Hill	8/1/2019 12:35 AM
15	Your sign is tiny and there isn't one on the freeway	7/31/2019 2:59 AM
16	can't see the sign until it's too late to take the exit	7/25/2019 6:51 AM
17	may be difficult to add signage according to state regs, would like to see an advertisement farther back on the freeway if possible	7/24/2019 10:37 AM
18	We need more signage all four ways	7/24/2019 6:08 AM
19	Unless you are from the area, I don't think the location is intuitive and better signage is necessary	7/24/2019 5:09 AM

Q6 The entry drive into the Arboretum provides an inviting, welcoming experience.

Answered: 140 Skipped: 3



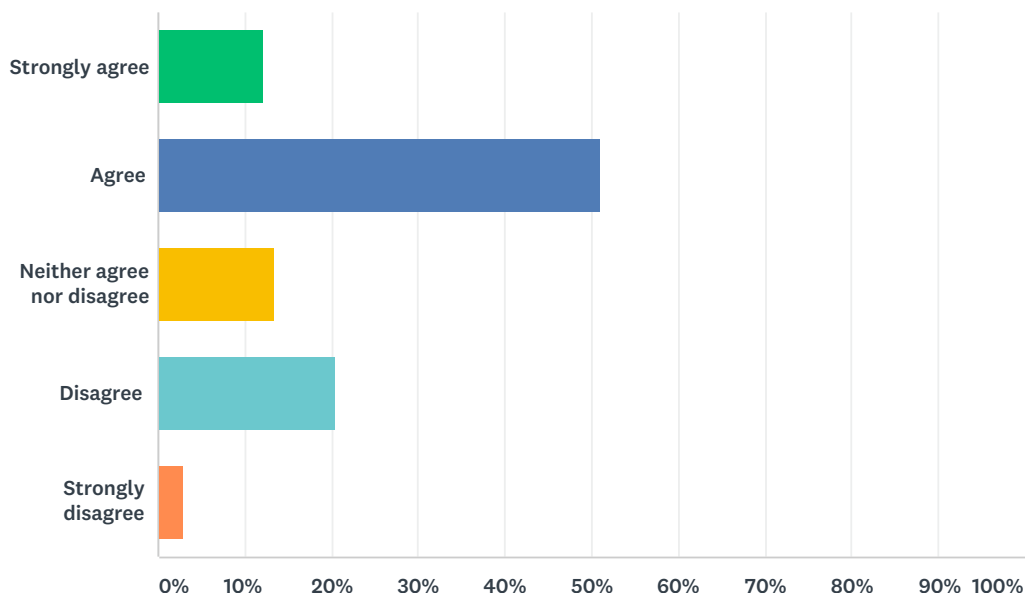
ANSWER CHOICES	RESPONSES	
Strongly agree	8.57%	12
Agree	33.57%	47
Neither agree nor disagree	30.00%	42
Disagree	23.57%	33
Strongly disagree	4.29%	6
TOTAL		140

#	ADD A COMMENT:	DATE
1	It could be dressed up with more greenery	9/15/2019 3:29 AM
2	be nice to landscape within in or in front of the freeway rocks and berms and keep the garbage picked up	9/11/2019 11:49 AM
3	the hill on the left side could use some more foliage	9/11/2019 10:03 AM
4	Definitely could be improved	9/11/2019 9:35 AM
5	Although, the entry drive can be a bit narrow if there are cars going both directions.	9/11/2019 9:22 AM
6	the sign is in the middle of the grass field and not visible on the drive in or lit up when it is dark and the drive in has no seasonal color or manicured landscaping letting people know they are arriving in a place that should be respected and isn't just a "park"	8/25/2019 10:24 AM
7	The entry needs more appealing and inviting decoration; perhaps lighting and more trees around the entrance, etc.	8/19/2019 3:40 PM
8	Needs to be landscaped.	8/18/2019 7:42 AM
9	It's pretty but a little bland	8/13/2019 11:16 AM

10	It's not awful but I wouldn't call it inviting.	8/13/2019 6:25 AM
11	It is rather short	8/13/2019 3:25 AM
12	not sure how to do better!	8/5/2019 3:12 PM
13	The entry drive south of the Jewett Center is attractive. Attractive signage there. But looking north from the parking area, not as attractive	8/1/2019 12:35 AM
14	Dead on one side and a sign in the middle of the field facing the pound	7/31/2019 2:59 AM
15	IIRC, the entry way was a little odd, but perhaps that was because of the freeway	7/26/2019 1:50 PM
16	Problematic to me is the garbage and weed trees on the far side of the fence.	7/25/2019 11:50 AM
17	would like it to be more landscaped to cover freeway hillsides sort of bland as an entryway	7/24/2019 10:37 AM
18	It should have a nice sign to the Arboretum to go left.	7/24/2019 6:35 AM
19	The fence needs some repairing and the garbage from the freeway on the other side of the fence needs to be picked up.	7/24/2019 6:08 AM

Q7 I find parking to be adequate at the Yakima Area Arboretum.

Answered: 141 Skipped: 2



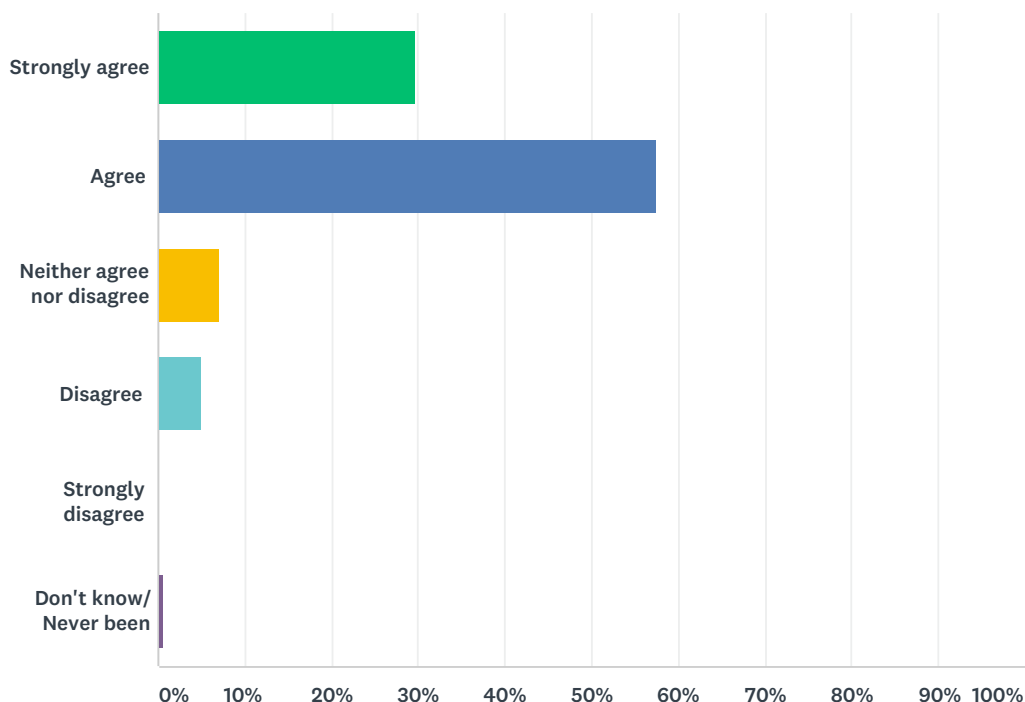
ANSWER CHOICES	RESPONSES	
Strongly agree	12.06%	17
Agree	51.06%	72
Neither agree nor disagree	13.48%	19
Disagree	20.57%	29
Strongly disagree	2.84%	4
TOTAL		141

#	ADD A COMMENT:	DATE
1	Need more for weddings & quinceaneras	9/15/2019 3:29 AM
2	grass parking seems to work fine	9/12/2019 1:25 PM
3	PAVING WOULD BE NICE	9/12/2019 2:42 AM
4	Just depends on the event	9/12/2019 1:54 AM
5	Have had trouble finding a parking spot when events are happening.	9/11/2019 2:38 PM
6	You make a concerted effort to make parking easy at large events. Thank you!	9/11/2019 2:28 PM
7	only real solution, but too bad the lawn has to be utilized, perhaps some parallel parking "trails" within the site	9/11/2019 11:49 AM
8	parking works great for average day, but for large events it can be challenging	9/11/2019 9:35 AM
9	Depends on the event	9/10/2019 2:24 PM
10	It could be better and more ample for occasions	9/3/2019 2:48 PM
11	needs to be graded or paved in the back lots and by the grass parking	8/25/2019 10:24 AM
12	it would be nice if the back parking lot was paved. I was surprised the first time I visited for a larger event that parking is allowed on grass, but now I take it as a given	8/23/2019 3:58 AM

13	Parking is little for big events or busy days	8/19/2019 3:40 PM
14	If there is a large event, parking on the grass seems necessary. Probably not good for the soil. Consider concrete block pavers that allow for grass to grow through the pavers. A huge parking lot would be very off-putting.	8/18/2019 7:42 AM
15	I have not had a problem: events are usually well organized	8/5/2019 3:12 PM
16	Loud, not nice	8/5/2019 5:05 AM
17	Except when large events occur	8/1/2019 2:28 PM
18	Not enough and too rough and bumpy	7/31/2019 2:59 AM
19	It depends on if there is an event going on.	7/29/2019 8:03 AM
20	At least on a quiet day, which it was when we visited	7/26/2019 1:50 PM
21	except for major events; luminaria, Autumn Bounty, etc.	7/26/2019 5:22 AM
22	We need more parking!	7/25/2019 11:50 AM
23	Depends on if I am there for an event or not	7/25/2019 1:18 AM
24	needs more parking during large events	7/24/2019 10:37 AM
25	I always find a place to park.	7/24/2019 6:35 AM
26	For everyday use, the parking is great but it is inadequate during special events such as Luminaria	7/24/2019 5:09 AM

Q8 I believe the Jewett Interpretive Center functions well as a visitor's center and as a location for meetings, events, and educational activities.

Answered: 141 Skipped: 2



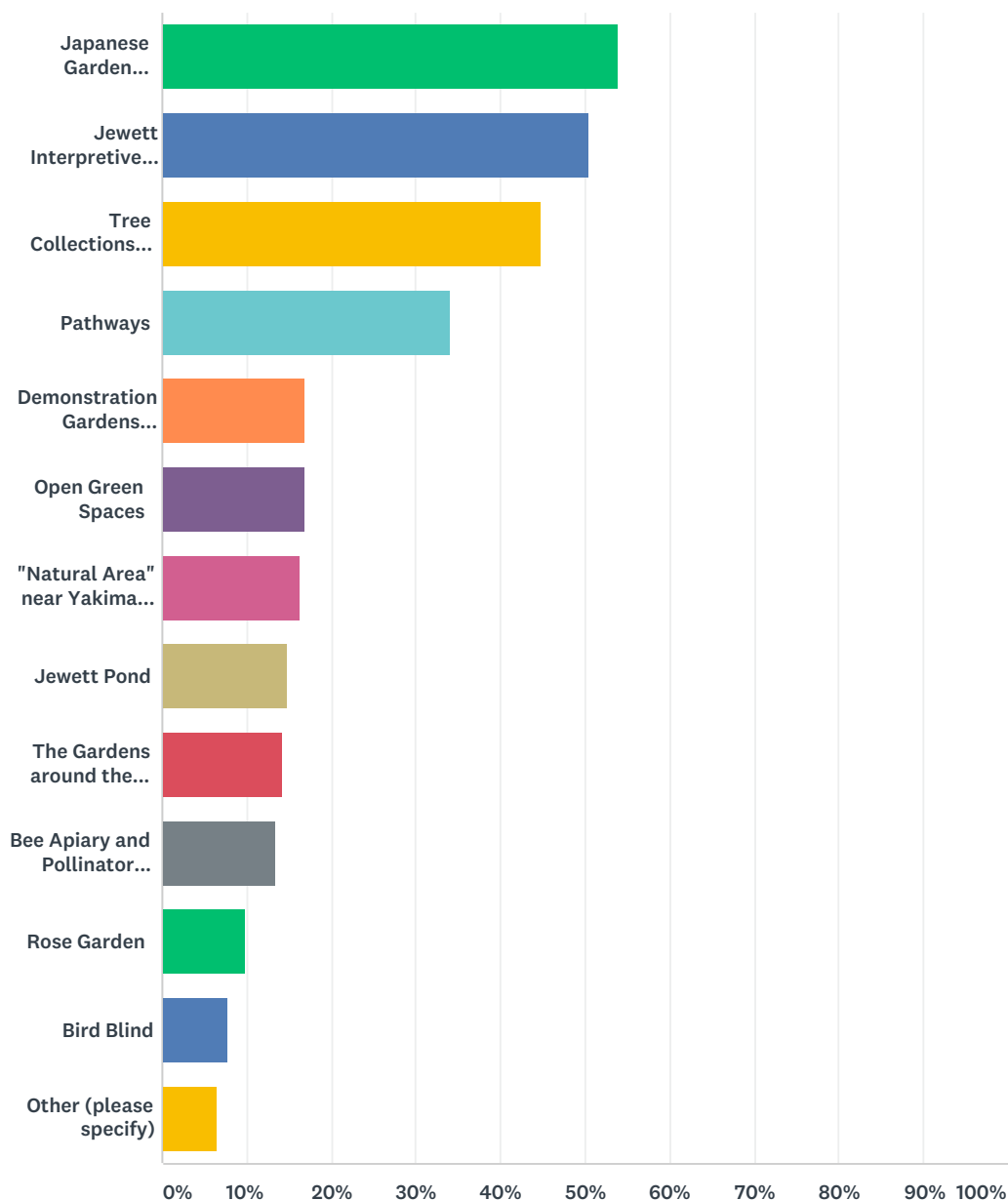
ANSWER CHOICES	RESPONSES	
Strongly agree	29.79%	42
Agree	57.45%	81
Neither agree nor disagree	7.09%	10
Disagree	4.96%	7
Strongly disagree	0.00%	0
Don't know/ Never been	0.71%	1
TOTAL		141

#	ADD A COMMENT:	DATE
1	It would attract large groups who need a space with a kitchen and larger banquet room	9/15/2019 3:29 AM
2	IT NEEDS SOME SPRUCING UP (NOT PUN INTENDED)	9/12/2019 2:42 AM
3	Updated kitchen is important	9/12/2019 1:54 AM
4	It's not big enough for some events! It could be a more inviting/beautiful room. But it's functional as is.	9/11/2019 2:28 PM
5	be nice if it could be larger - second story meeting room would have a great view	9/11/2019 11:49 AM
6	It functions weill, but it would be great to have a larger place	9/11/2019 9:35 AM
7	The interpretive displays/exhibits could be updated to better engage the visitor.	9/11/2019 9:22 AM

8	lighting could be added to enhance the nighttime use abd security of the facility which hosts many events that go well into the night.	8/25/2019 10:24 AM
9	Why is one side of the main door always locked?	8/17/2019 1:49 AM
10	bigger might be better	8/5/2019 3:12 PM
11	Not big enough for large events	8/1/2019 2:28 PM
12	Seems ok to me but I've never hosted an event there. The kitchen is functional but it can be crowded trying to accommodate Arboretum events. For example it is crowded & bottle-necked for Luminaria. The solarium room looks a little junky at times. It could be more attractive	8/1/2019 12:35 AM
13	There's space for these things but cld b more inviting or done up for events	7/31/2019 2:59 AM
14	I love the Jewett Center but there are often events there that could use more room. I also think we need to expand the kitchen to better serve those that rent the facility...and for events too!	7/25/2019 11:50 AM
15	needs to be expanded	7/24/2019 10:37 AM
16	It is spacious and nice around.	7/24/2019 6:35 AM

Q9 Please mark the box next to the THREE existing site amenities that are MOST IMPORTANT to you. Please mark only three boxes.

Answered: 141 Skipped: 2



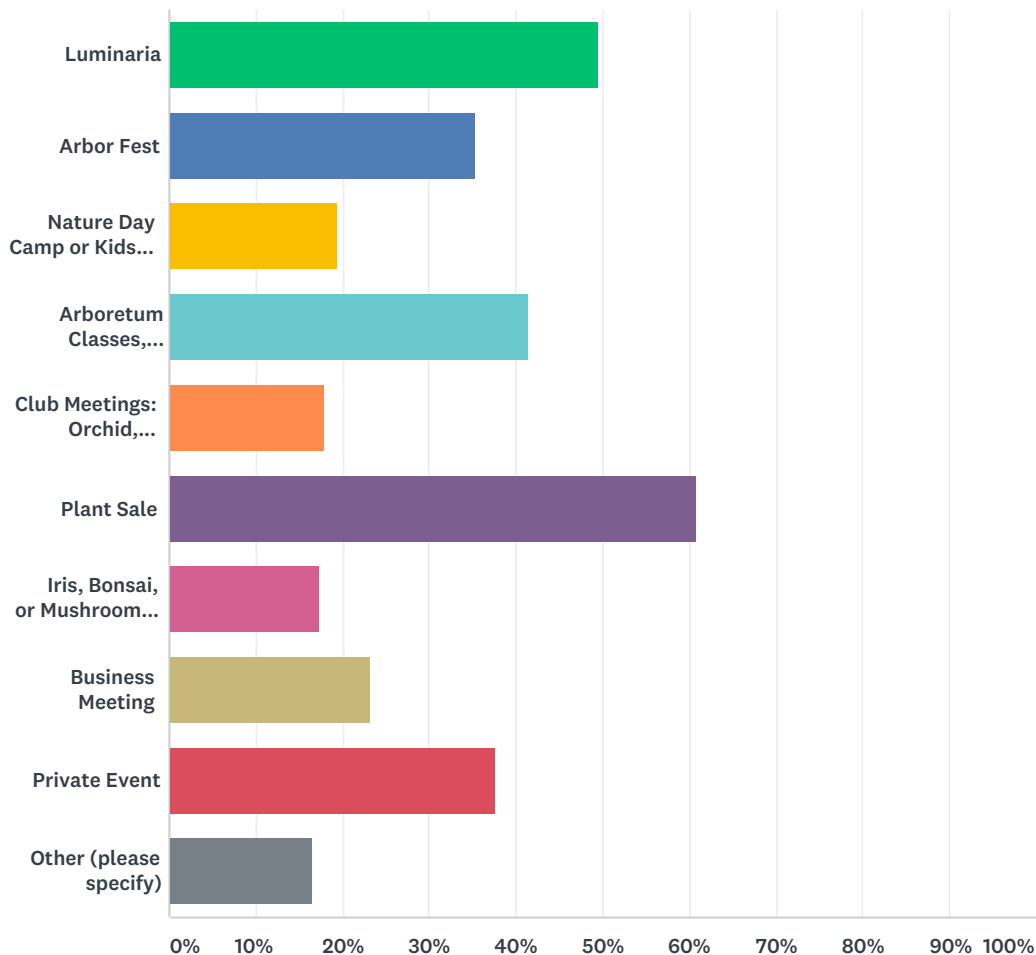
ANSWER CHOICES	RESPONSES	
Japanese Garden (Including the Tea House, Pond, and Pagoda)	53.90%	76
Jewett Interpretive Center	50.35%	71
Tree Collections (Oaks, Maples, Crabapples, etc.)	44.68%	63
Pathways	34.04%	48
Demonstration Gardens (Dryland, Xeric, Rock Gardens)	17.02%	24

Open Green Spaces	17.02%	24
"Natural Area" near Yakima River	16.31%	23
Jewett Pond	14.89%	21
The Gardens around the Jewett Center	14.18%	20
Bee Apiary and Pollinator Garden	13.48%	19
Rose Garden	9.93%	14
Bird Blind	7.80%	11
Other (please specify)	6.38%	9
Total Respondents: 141		

#	OTHER (PLEASE SPECIFY)	DATE
1	This was really hard: I also value the rose garden, the demonstration gardens, the Japanese garden, the natural area, as well as the pollinator garden. The pathways to all are valuable.	9/11/2019 2:28 PM
2	Linda Kundson memorial garden	9/11/2019 9:58 AM
3	The volunteer building for tools and working at YAA	9/3/2019 2:48 PM
4	the asthetics of the tree collections and preservation of them by proper pruning practices and management	8/25/2019 10:24 AM
5	Children's activities such as nature day camp	8/19/2019 3:27 PM
6	I love the tree collection. It is the basis of an arboretum. Keep expanding it. But the demonstration gardens are underwhelming, but important. I feel they need to be expanded and get more attention. Would also like to see more shrubs represented with mixed plantings under trees.	8/18/2019 7:42 AM
7	volunteer center/storage building & surrounding meeting area	8/17/2019 8:00 AM
8	desert cactus garden, though needs a little love, is a one of a kind here. Could be more present, interpretive signs more visually accessible.	8/6/2019 11:58 AM
9	more improved interpretive signage on pathways, trees and exhibit areas	7/24/2019 10:37 AM

Q10 Please mark the box beside each organized event you or your family have attended at the Arboretum during the last year. Check as many boxes as apply.

Answered: 133 Skipped: 10



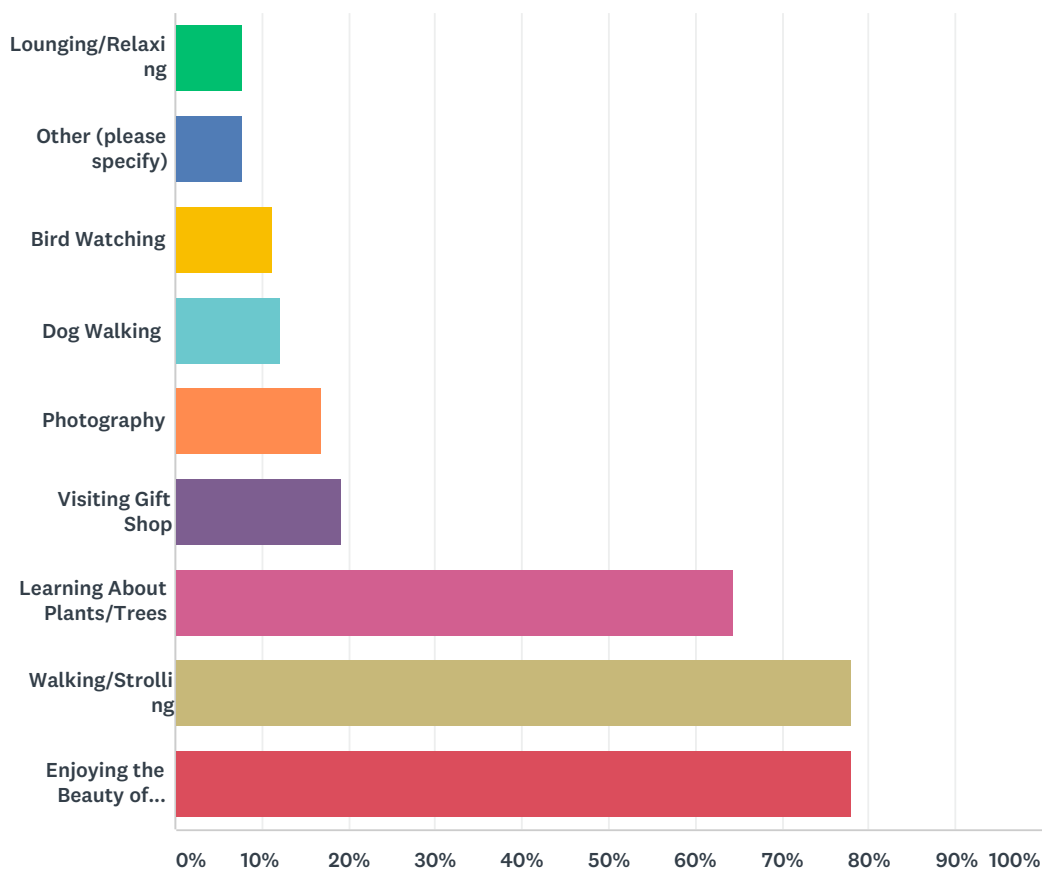
ANSWER CHOICES	RESPONSES	
Luminaria	49.62%	66
Arbor Fest	35.34%	47
Nature Day Camp or Kids Nature Night	19.55%	26
Arboretum Classes, Lectures, or Naturalist Walks	41.35%	55
Club Meetings: Orchid, Bonsai, Mushroom, etc.	18.05%	24
Plant Sale	60.90%	81
Iris, Bonsai, or Mushroom Show	17.29%	23
Business Meeting	23.31%	31
Private Event	37.59%	50
Other (please specify)	16.54%	22

Total Respondents: 133

#	OTHER (PLEASE SPECIFY)	DATE
1	Audubon meetings	9/17/2019 10:18 AM
2	CCC auction volunteer, arboretum planning meeting	9/15/2019 4:51 PM
3	field trip with students	9/12/2019 1:25 PM
4	None	9/12/2019 2:22 AM
5	Autumn bounty	9/11/2019 9:58 AM
6	Luminaria filling	9/11/2019 9:24 AM
7	Autumn Bounty	9/11/2019 9:22 AM
8	I live in MOunt Vernon, Washington and visit when I can	9/3/2019 2:48 PM
9	Annual Arboretum fundraiser/auction	8/23/2019 3:58 AM
10	First grade field trip	8/19/2019 11:43 PM
11	We are from Kirkland - we have not attended any of these	8/13/2019 11:16 AM
12	arborfest	8/13/2019 9:43 AM
13	Jheri's Retirement Dinner	8/13/2019 8:42 AM
14	I want to come but it is difficult to get from Richland to there. You could easily fill a small with interested gardeners from here	8/13/2019 3:25 AM
15	Library summer reading program activity	8/12/2019 3:56 AM
16	guided walks (seem very popular)	8/6/2019 11:58 AM
17	since the mushroom club doesn't meet there monthly, we haven't attended any events. We really miss Bob as he was a treasure of information and help.	7/29/2019 8:03 AM
18	didn't attend this last year	7/28/2019 3:49 AM
19	We got a personal tour from Colleen when we visited a few years ago.	7/26/2019 1:50 PM
20	Autumn Bounty	7/24/2019 8:21 AM
21	Autumn Bounty	7/24/2019 5:09 AM
22	special occasion photos	7/24/2019 5:04 AM

Q11 Please mark the box next to the THREE Arboretum activities that are MOST IMPORTANT to you. Please mark only three boxes.

Answered: 141 Skipped: 2



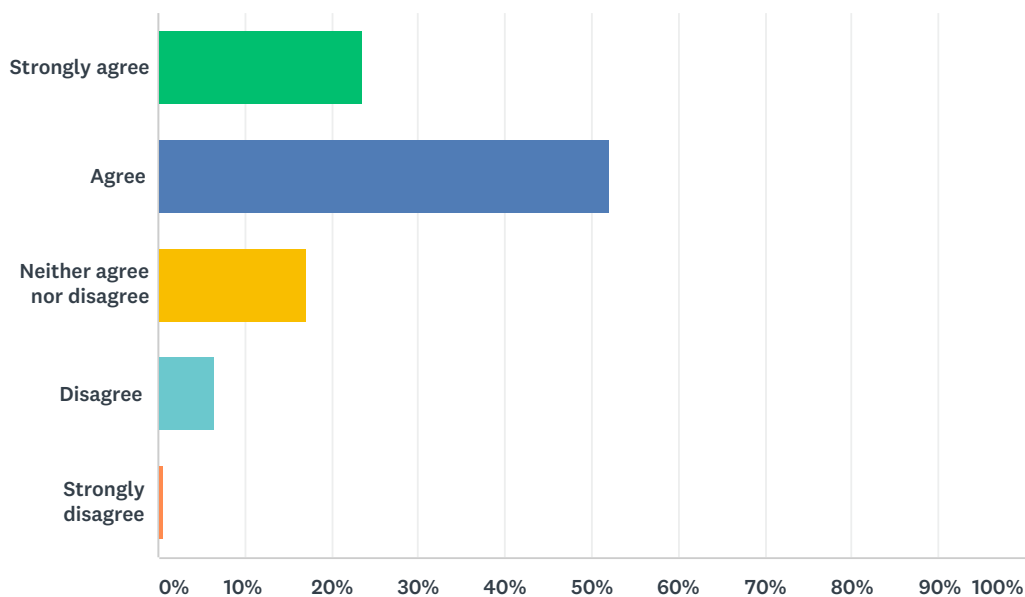
ANSWER CHOICES		RESPONSES	
Lounging/Relaxing		7.80%	11
Other (please specify)		7.80%	11
Bird Watching		11.35%	16
Dog Walking		12.06%	17
Photography		17.02%	24
Visiting Gift Shop		19.15%	27
Learning About Plants/Trees		64.54%	91
Walking/Strolling		78.01%	110
Enjoying the Beauty of Nature		78.01%	110
Total Respondents: 141			

#	OTHER (PLEASE SPECIFY)	DATE
1	A green space that safe for wildlife & commercial & residential development	9/15/2019 3:29 AM

2	Meeting place	9/13/2019 1:31 AM
3	We love the Luminaria!	9/11/2019 2:28 PM
4	Wreath making class	9/11/2019 10:59 AM
5	making the arboretum as beautiful as i know it can be	8/25/2019 10:24 AM
6	Working on volunteer projects, staff and the board	8/24/2019 2:58 AM
7	Luminaria, Arbor Fest	8/15/2019 11:15 PM
8	I wish the gift shop were open on Sunday	8/13/2019 11:16 AM
9	Lectures	7/24/2019 8:47 AM
10	running, exercise	7/24/2019 6:35 AM
11	Classes	7/24/2019 5:09 AM

Q12 When I walk in the Arboretum, it's easy for me to find my way around.

Answered: 140 Skipped: 3



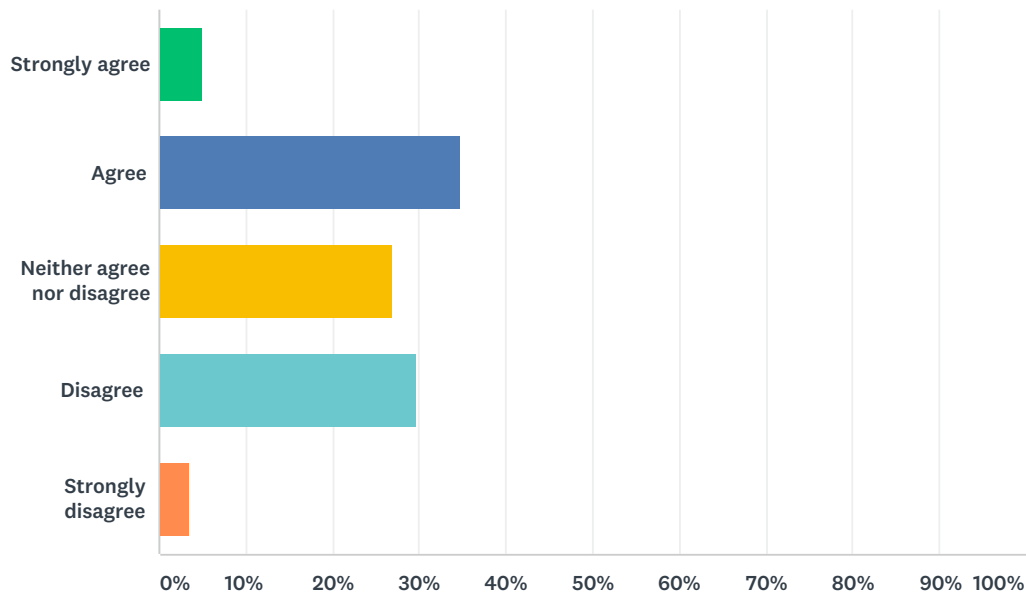
ANSWER CHOICES	RESPONSES	
Strongly agree	23.57%	33
Agree	52.14%	73
Neither agree nor disagree	17.14%	24
Disagree	6.43%	9
Strongly disagree	0.71%	1
TOTAL		140

#	ADD A COMMENT:	DATE
1	We had a hard time finding the bird blind! Had to call Colleen!	9/13/2019 12:33 AM
2	DIDN'T KNOW ABOUT ALL THE AREAS - PERHAPS A BIG MAP SIGN	9/12/2019 2:42 AM
3	Maybe a map?	9/11/2019 2:28 PM
4	Signage would be great to identify points of interest	9/11/2019 9:35 AM
5	it could have better signage or a more clear flow to its paths and features as well as signs for the different featured areas could be subtle but easily viewed	8/25/2019 10:24 AM
6	I enjoy the open spaces with no structure, but also would like to see some pathways that take me to areas that are discovered along the way	8/19/2019 3:40 PM
7	Needs to be improved	8/18/2019 7:42 AM
8	I have never found the route to the river dide	8/13/2019 3:25 AM
9	There are no signs only half the trees have labels there is no sign that says "oak collection" or "rose garden" if we had t been here a million times I wldnt really know where anything was	7/31/2019 2:59 AM

10	But I know the Arboretum! I think that for first-time visitors additional signage would be useful and informative.	7/25/2019 11:50 AM
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Q13 There is appropriate signage throughout the Arboretum to give broader information about plant collections, ecology, demonstration gardens, etc.

Answered: 141 Skipped: 2



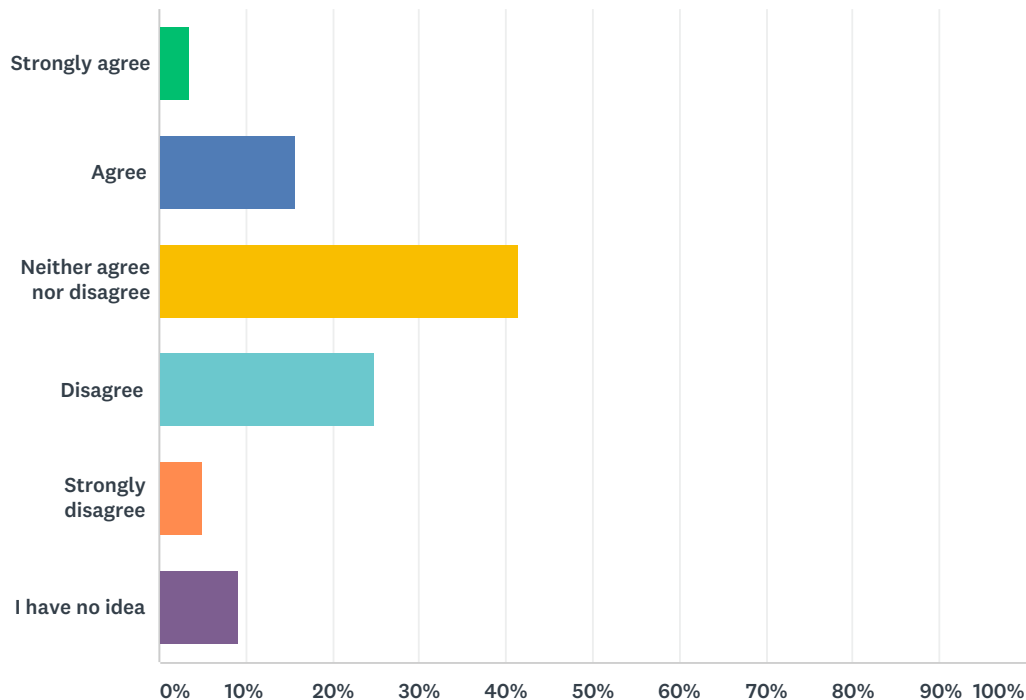
ANSWER CHOICES	RESPONSES	
Strongly agree	4.96%	7
Agree	34.75%	49
Neither agree nor disagree	26.95%	38
Disagree	29.79%	42
Strongly disagree	3.55%	5
TOTAL		141

#	ADD A COMMENT:	DATE
1	prefer more common/scientific names	9/15/2019 4:51 PM
2	Please keep signage I. Natural or repurposed materials and compatible with natural surroundings	9/15/2019 3:29 AM
3	some tree tags are missing	9/12/2019 1:25 PM
4	I'VE NEVER NOTICED ANY	9/12/2019 2:42 AM
5	We found quite a few trees that were not identified.	9/12/2019 2:22 AM
6	I've had trouble finding ID tags and there isn't much explanatory information.	9/11/2019 2:32 PM
7	More info and more info in Spanish needed	9/11/2019 2:26 PM
8	need more tree interpretive signage	9/11/2019 11:49 AM
9	It could be improved and updated in part	9/3/2019 2:48 PM
10	I have found myself wishing there was better signage about the various species of plants and trees	8/26/2019 4:31 AM

11	for plant information an interactive app could be a possibility for the people who care to get further information on specific plants or collections but i dont think there needs to be signs around for this sort of thing	8/25/2019 10:24 AM
12	Need more signs directing to the different areas, and the sign for each exhibit could have like a barcode that could be read with a cellphone to learn more about certain area and collection with interactive maps, etc.	8/19/2019 3:40 PM
13	Needs improvement.	8/18/2019 7:42 AM
14	I look for the names of trees and can't find markers	8/17/2019 8:00 AM
15	There needs to be a "directory" of sorts to show where the different areas are - and signed to point the way	8/13/2019 11:16 AM
16	There could be a few more tree signs.	8/13/2019 8:42 AM
17	If it isn't on a sign there should better maps keyed to the info on exhibits in the center bldg	8/13/2019 3:25 AM
18	I was an active member of YAA for several years before I understood that there were collections. I did see like trees in zones, but did not think this was on purpose. Exploring a tree genus by viewing several species is pretty cool, but most people will need to have this explained to appreciate it.	8/6/2019 11:58 AM
19	I wish more trees had signage	8/6/2019 7:19 AM
20	I think there could always be more educational signing	8/5/2019 3:12 PM
21	Never though about this much either as I'm familiar with the grounds. Some signage might be helpful to direct visitors to the various areas. But not too much signage	8/1/2019 12:35 AM
22	The signace for the tree collection has been wonderful since the Boy Scouts marked the tree collections so nicely a few years ago.	7/29/2019 8:03 AM
23	The Rose Garden is pointless without the name of the roses. I	7/27/2019 4:56 AM
24	More signage is good however	7/25/2019 2:44 AM
25	Please add more signs and local ag trees if you can like fruit bearing.	7/24/2019 6:08 AM

Q14 It's easy for me to understand the way the tree collections are laid out and why they are arranged as they are.

Answered: 140 Skipped: 3



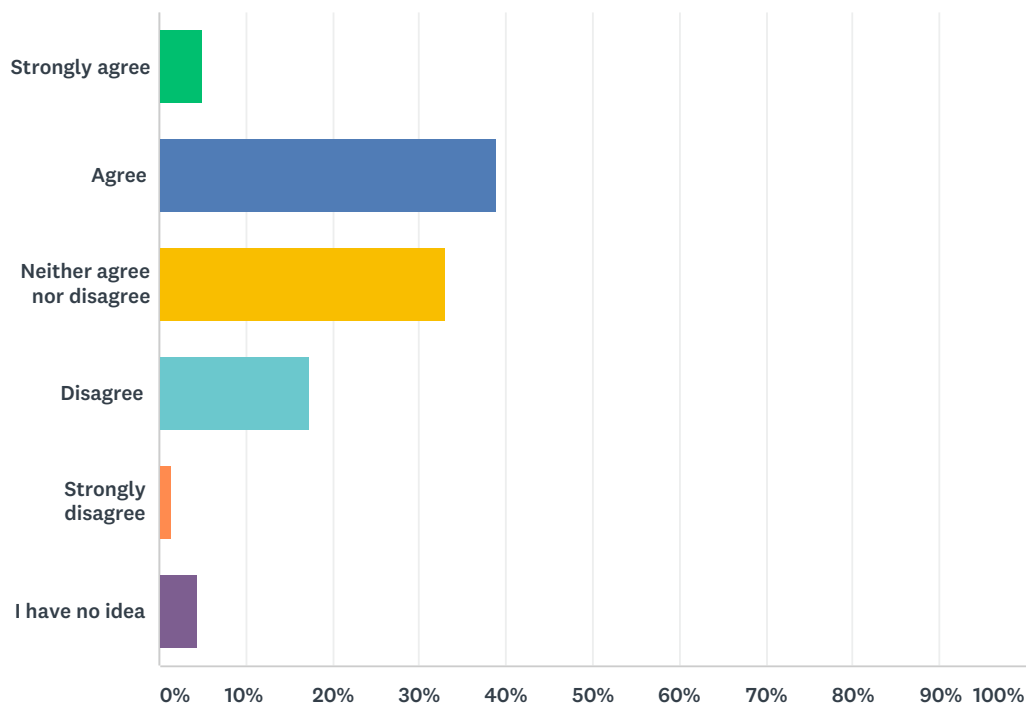
ANSWER CHOICES	RESPONSES	
Strongly agree	3.57%	5
Agree	15.71%	22
Neither agree nor disagree	41.43%	58
Disagree	25.00%	35
Strongly disagree	5.00%	7
I have no idea	9.29%	13
TOTAL		140

#	ADD A COMMENT:	DATE
1	A map would be helpful to carry around	9/12/2019 1:54 AM
2	I don't think alot of people even realize there are collections	9/11/2019 9:35 AM
3	it is difficult to tell when you are in a certain tree collection unless you personally know the different types of trees already but you cant really tell when you enter or exit one and enter another.	8/25/2019 10:24 AM
4	Needs improvement	8/18/2019 7:42 AM
5	i have no idea about the logic behind it	8/5/2019 3:12 PM
6	I really had no awareness of this until I helped with the tagging & cataloguing of the trees. Had no idea that there were grids with trees id'ed in each	8/1/2019 12:35 AM
7	Perhaps I should....	7/25/2019 11:50 AM

8	Not easy	7/25/2019 2:44 AM
9	I didn't know there were three collections.	7/24/2019 6:08 AM
10	I don't even think about the way the collection is laid out	7/24/2019 5:09 AM

Q15 The labeling system for individual trees works well.

Answered: 139 Skipped: 4



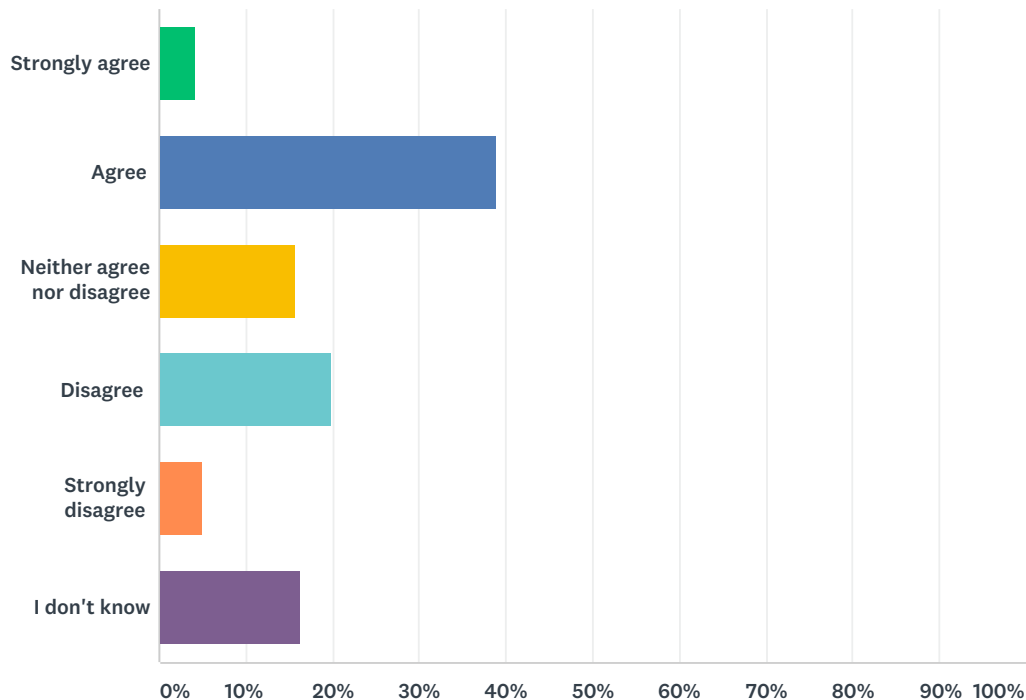
ANSWER CHOICES	RESPONSES	
Strongly agree	5.04%	7
Agree	38.85%	54
Neither agree nor disagree	33.09%	46
Disagree	17.27%	24
Strongly disagree	1.44%	2
I have no idea	4.32%	6
TOTAL		139

#	ADD A COMMENT:	DATE
1	I usually don't notice the tree labels.	9/15/2019 4:51 PM
2	Except for those not labeled.	9/13/2019 12:33 AM
3	More info or website recommendations and more Spanish please	9/11/2019 2:26 PM
4	I would love to know when the tree was planted; i.e.How old is it!	9/11/2019 9:35 AM
5	i like the labeling system for the trees....simple and consistent and subtle	8/25/2019 10:24 AM
6	Tags are sometimes not easy to find	8/19/2019 3:40 PM
7	Sometimes difficult to find identification.	8/18/2019 7:42 AM
8	They don't stand out very much	8/13/2019 11:16 AM
9	maintenance issues make signing that is easy to read harder	8/5/2019 3:12 PM

10	It is hard to find the labels on the trees. Or maybe it just needs to be redone more often. When I helped retained trees, then the tags were easier to find. But, still, if I didn't know they were there, I might not have seen them	8/1/2019 12:35 AM
11	Too small	7/31/2019 2:59 AM
12	In all the years I have been a part of the Arboretum, I have never used the labeling...and I know that it has been done. Could it be more visible?	7/25/2019 11:50 AM
13	I don't remember seeing the labels.	7/24/2019 6:08 AM
14	I've never looked at or for the labels	7/24/2019 5:09 AM

Q16 Lighting is adequate for parking and pedestrian circulation during evening events.

Answered: 141 Skipped: 2



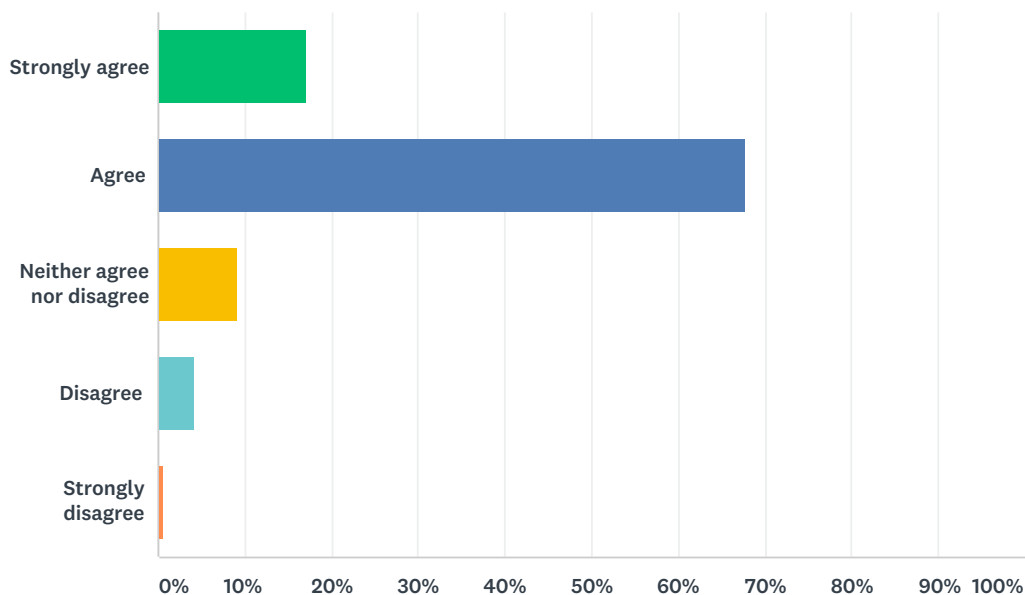
ANSWER CHOICES	RESPONSES	
Strongly agree	4.26%	6
Agree	39.01%	55
Neither agree nor disagree	15.60%	22
Disagree	19.86%	28
Strongly disagree	4.96%	7
I don't know	16.31%	23
TOTAL		141

#	ADD A COMMENT:	DATE
1	Do need more lighting	9/15/2019 3:29 AM
2	Was there during the day	9/12/2019 2:22 AM
3	would like to see more pathway lighting perhaps like old fashioned pole mounted lights/lanterns	9/11/2019 11:49 AM
4	the closely mown area is virtually dark as well as the north and south sides of the building.....the landscaping along the sides of the building could be enhanced greatly with a few well positioned lights as well as the pond in the entryway of the building and the walkway into the front of the building	8/25/2019 10:24 AM
5	Have not been to the arboretum at night.	8/22/2019 12:02 PM
6	There is never such thing as enough lighting.	8/19/2019 3:40 PM
7	There needs to be some more lighting in the North end of the parking lot.	8/13/2019 8:42 AM

8	I haven't been there enough at night to really comment on this. The few things I've been to, it has been fine.	8/1/2019 12:35 AM
9	Was there during the day.	7/26/2019 1:50 PM
10	I know lighting has been added to the parking lot, but I have walked north in the lot after dark and it is still spooky. I also think that landscape lighting would add to the gardens too.	7/25/2019 11:50 AM
11	Better than in the past	7/24/2019 8:00 AM

Q17 I generally feel safe when I visit the Arboretum.

Answered: 140 Skipped: 3



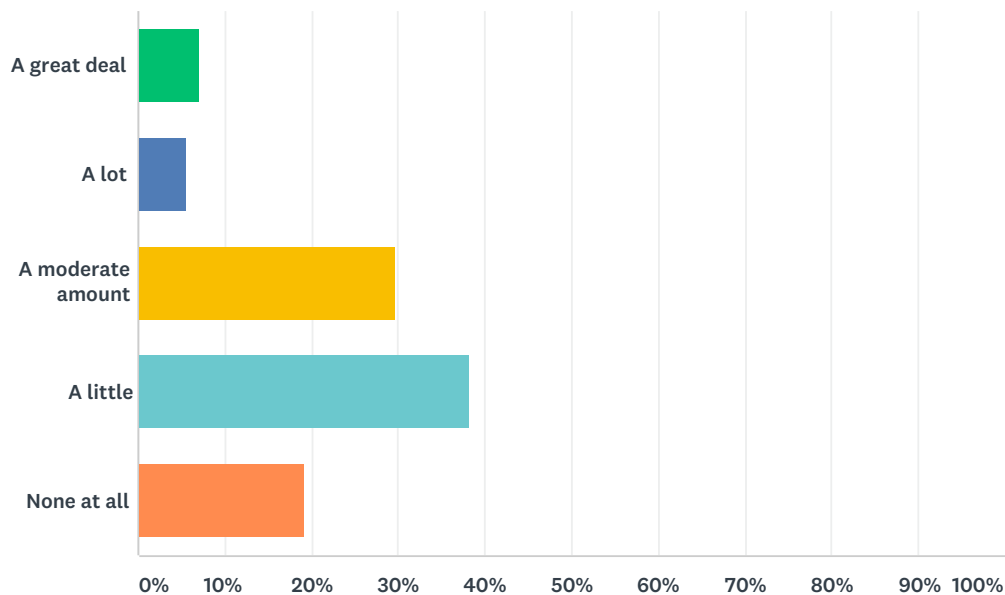
ANSWER CHOICES	RESPONSES	
Strongly agree	17.14%	24
Agree	67.86%	95
Neither agree nor disagree	9.29%	13
Disagree	4.29%	6
Strongly disagree	0.71%	1
TOTAL		140

#	ADD A COMMENT:	DATE
1	In the last year I've seen more transient people around the building	9/12/2019 1:25 PM
2	however lighting in certain areas could be better even though it is closed at dark when people have nighttime events there are certain areas that people tend to wander off to that could be enhanced with some more lighting...and a couple areas that could be enhanced and made more safe by some landscape lighting namely the japanese garden with some pathway lights and some spotlights reflecting of of some of the various water features that are possible to cast some unique shadows about.	8/25/2019 10:24 AM
3	Generally I feel safe, but at the same time it is open to everyone so it is a public space. Maybe if someone would patrol every hour the whole area and have like emergency booths that one could press in case of emergency that would help with safety	8/19/2019 3:40 PM
4	I do not feel safe with the homeless shelter so close.	8/13/2019 11:37 AM
5	So close to the Greenway where I have been confronted by strangers.	8/13/2019 3:45 AM
6	Greenway needs to be developed to move homeless out!	8/13/2019 3:02 AM

7	This is really a case-by-case question. I have been at the Greenway @YAA when the police were searching for a half-clad guy who had accosted someone, and he had just gone by me. There are a lot of circumstances YAA can't influence. In general, I feel safe on the open lawns and at the Center. Parking at the maintenance area can be scary; lights would help but not make it less isolated. The Greenway is not a place I spend time alone, nor the interior trails after about 4pm. Each visitor has to be stewards of their own safety.	8/6/2019 11:58 AM
8	I feel much safer at the Arboretum than the Greenway. Also, safer than general downtown or public areas in Yakima	8/1/2019 12:35 AM
9	During the day. Nearer to evening there are a lot of seedy looking characters sleeping on benches or in the trees	7/31/2019 2:59 AM
10	As long as I don't go too close to the Greenway.	7/29/2019 8:03 AM
11	Mostly, but since my car was broken into, I always am vigilant when going alone to my car.	7/25/2019 11:50 AM
12	A couple people hang out near the Japanese garden and listen to music and smoke making it feel like an area not for my kids	7/24/2019 5:20 AM

Q18 When I visit, freeway noise has an effect on my experience to the following degree:

Answered: 141 Skipped: 2



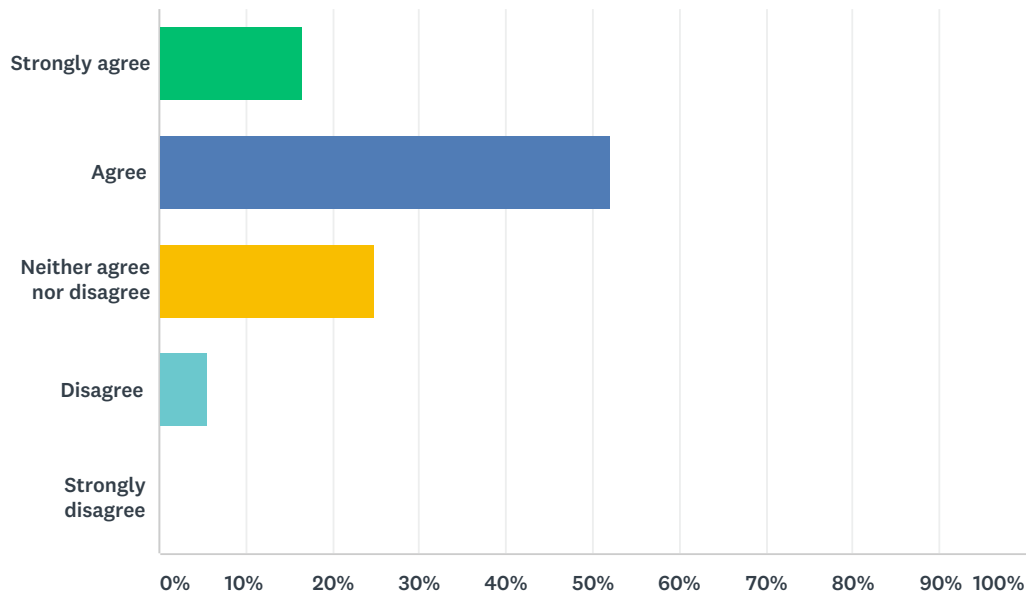
ANSWER CHOICES	RESPONSES	
A great deal	7.09%	10
A lot	5.67%	8
A moderate amount	29.79%	42
A little	38.30%	54
None at all	19.15%	27
TOTAL		141

#	ADD A COMMENT:	DATE
1	the noise is worse in late afternoon and evening and affects my enjoyment	9/15/2019 4:51 PM
2	Didn't notice it at all.	9/11/2019 2:32 PM
3	it's all in planning around speedway events	9/11/2019 11:49 AM
4	but I know that is something we must live with. :(9/11/2019 9:35 AM
5	one of the biggest flaws of the arboretum that could definitely be mitigated somewhat by the use of berming such as used by the greenway just south of the water treatment plant where the path veers to the west and is quite close to the freeway however the use of slight berms decreases the freeway noise by approximately 25-35 decibals behind the berm as opposed to when you stand on top of one and theses are in my opinion fairly small berms and not very long but for their size there is a considerable reduction in noise since the cost of a noise wall would probably be quite expensive	8/25/2019 10:24 AM
6	Noticeable at the beginning, but not a such deal after you are inside	8/19/2019 3:40 PM
7	Wish the cars would go away!	8/18/2019 7:42 AM
8	very important that the arboretum is visible from the freeway	8/17/2019 8:00 AM

9	This should be the highest priority issue to resolve!	8/13/2019 9:43 AM
10	YAA was located here before the freeway became what it is. I keep that in mind, but most people don't know that.	8/6/2019 11:58 AM
11	it would be awesome if we could figure out a way to decrease the noise: DOT wall?	8/5/2019 3:12 PM
12	It is unfortunate that there is as much freeway noise as there is.	8/1/2019 12:35 AM
13	It is a pity that the highway is so close.	7/24/2019 6:35 AM

Q19 The Arboretum currently provides ample opportunities for physical activity and exercise.

Answered: 140 Skipped: 3



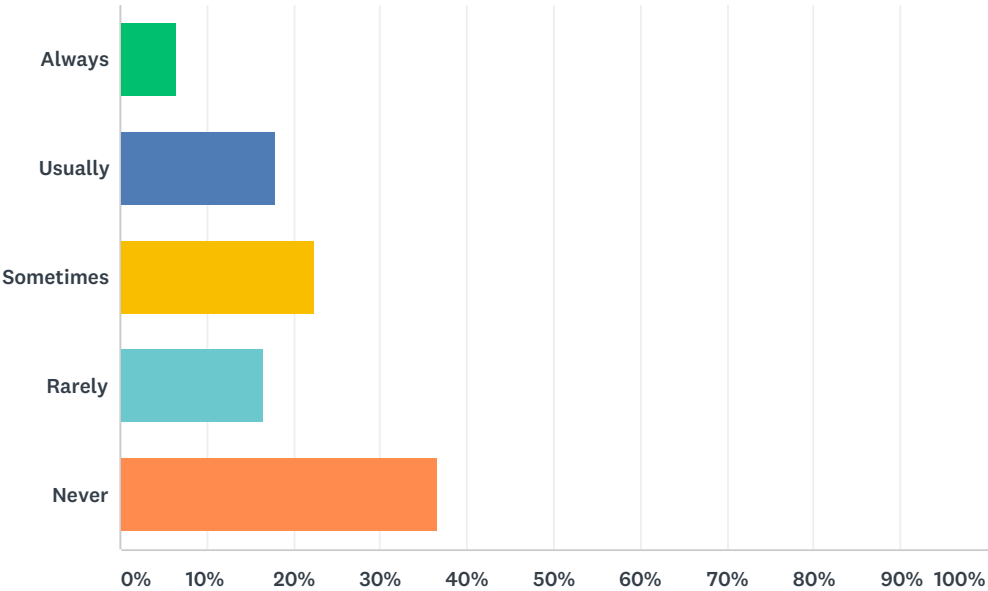
ANSWER CHOICES	RESPONSES	
Strongly agree	16.43%	23
Agree	52.14%	73
Neither agree nor disagree	25.00%	35
Disagree	5.71%	8
Strongly disagree	0.00%	0
TOTAL		140

#	ADD A COMMENT:	DATE
1	Don't see Arboretum as a location for strenuous physical activity and exercise.	9/17/2019 10:18 AM
2	If people want physical activity they can use a park or walk or bike the greenway	9/15/2019 3:29 AM
3	We don't come for exercise	9/11/2019 2:28 PM
4	would be nice to have an exercise suggested "path" like the Boy Scouts once had at Franklin Park	9/11/2019 11:49 AM
5	I think pathways of a certain distance and other suggestions would be great	9/11/2019 9:35 AM
6	its not a place for "physical" activity.... there is plenty of opportunity for that on the greenway path itself as well as a mile north of the arboretum at sarge hubbard PARK in fact I feel running,bicycles,sports of any type should not be allowed at the arboretum it is a place to calmly enjoy nature, a place to learn about nature, and a place to respectfully relax and enjoy your surroundings....nobody wants to do that while they have people trying to get a workout in...not the place for it so hopefully it curenly and in the future wont provide ample or any, other than walking, opportunities for physical activity and exercise...not what its for!	8/25/2019 10:24 AM
7	Maybe activities areas are needed. I would love to see an area to do Yoga, and other type of activities.	8/19/2019 3:40 PM
8	Consider better joining with the Greenway	8/18/2019 7:42 AM

9	other than walking /jogging???	8/17/2019 8:00 AM
10	Add frisbee golf	8/14/2019 4:54 PM
11	I would like more paths and signs	8/13/2019 3:25 AM
12	I'd enjoy frisbee golf posts, perhaps closer to the south-side lawns.	8/6/2019 11:58 AM
13	It's a nice area for walking. But maybe there is more that can be done in this area. Sponsor some outdoor yoga classes or something	8/1/2019 12:35 AM
14	I don't think this is that kind of place. A brisk walk yea but as far as exercise I don't look at the arboretum as that sort of place.	7/31/2019 2:59 AM
15	This does not effect me personally, but I hope that by the time I am physically not able to ambulate, there is a path that my wheelchair can navigate!	7/25/2019 11:50 AM
16	What about an exercise course	7/25/2019 2:44 AM
17	need a boy scout project to put in an activity trail maybe like was once done at Franklin park	7/24/2019 10:37 AM
18	Never really thought of exercise at the arboretum	7/24/2019 5:20 AM

Q20 When I visit the Arboretum, I am accompanied by my children or grandchildren.

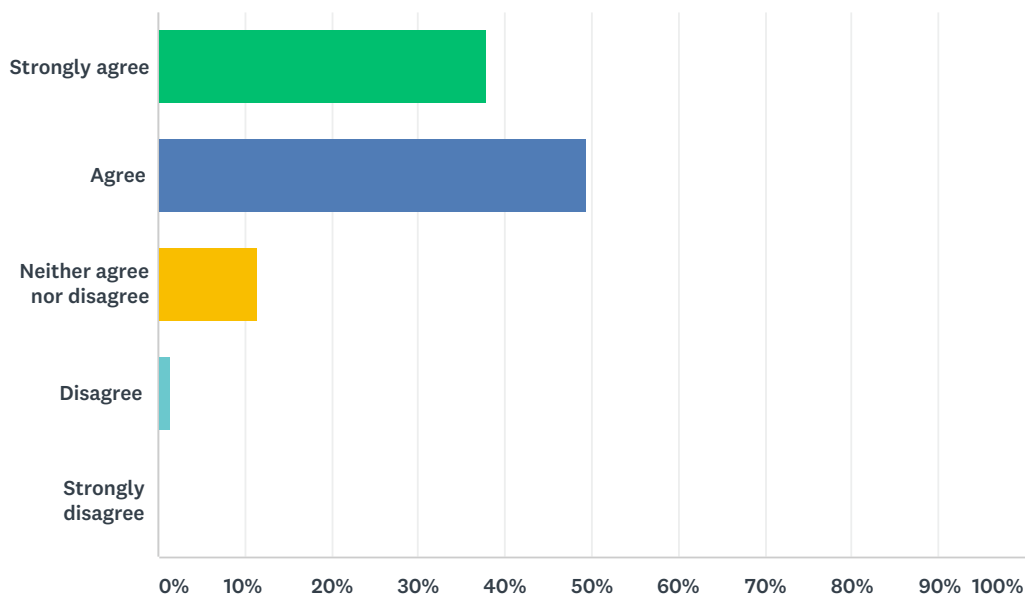
Answered: 139 Skipped: 4



ANSWER CHOICES		RESPONSES	
Always		6.47%	9
Usually		17.99%	25
Sometimes		22.30%	31
Rarely		16.55%	23
Never		36.69%	51
TOTAL			139

Q21 The Arboretum is a good place for children to enjoy.

Answered: 140 Skipped: 3

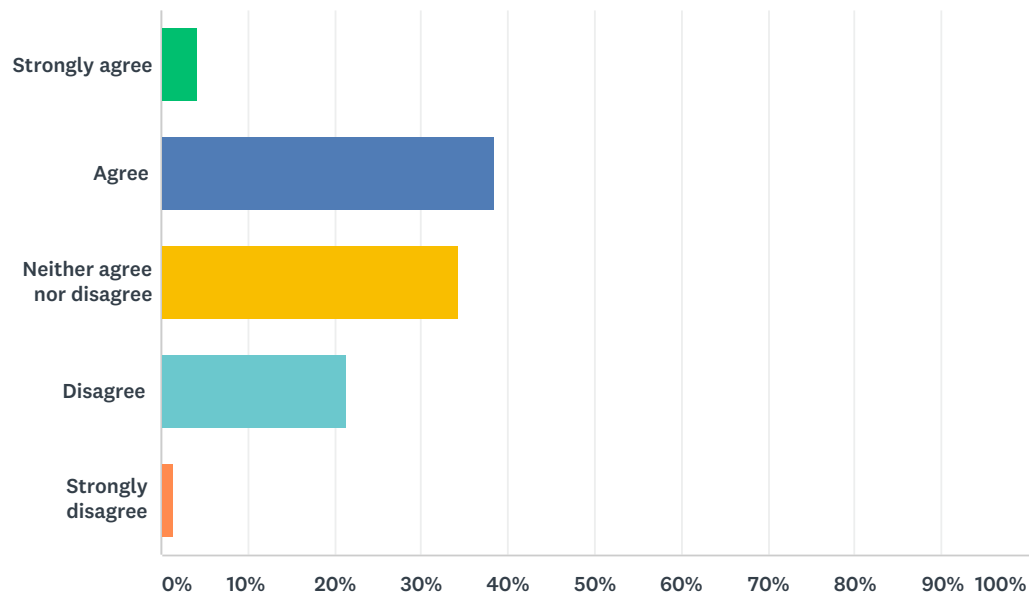


ANSWER CHOICES	RESPONSES	
Strongly agree	37.86%	53
Agree	49.29%	69
Neither agree nor disagree	11.43%	16
Disagree	1.43%	2
Strongly disagree	0.00%	0
TOTAL		140

#	ADD A COMMENT:	DATE
1	I'm on the mailing list; I find the cost for children's events to be high. I put myself in the shoes of a person with two or three children and think, only fairly wealthy children will have access to that.	9/11/2019 2:32 PM
2	if theyre accompanied by and adult that teaches them about what an arboretum is then yes its great	8/25/2019 10:24 AM
3	Joyful Garden, fall leaves and tree climbing are favorites.	8/17/2019 1:49 AM
4	If they are supervised	8/13/2019 11:16 AM
5	It would be great to teach them about planting and caring for plants	8/13/2019 3:25 AM
6	need childrens playground or space	8/5/2019 5:05 AM
7	I don't have kids but I came with my nephew and niece, also I recommend it to my students.	7/24/2019 6:35 AM

Q22 I am satisfied with the Yakima Area Arboretum just the way it is.

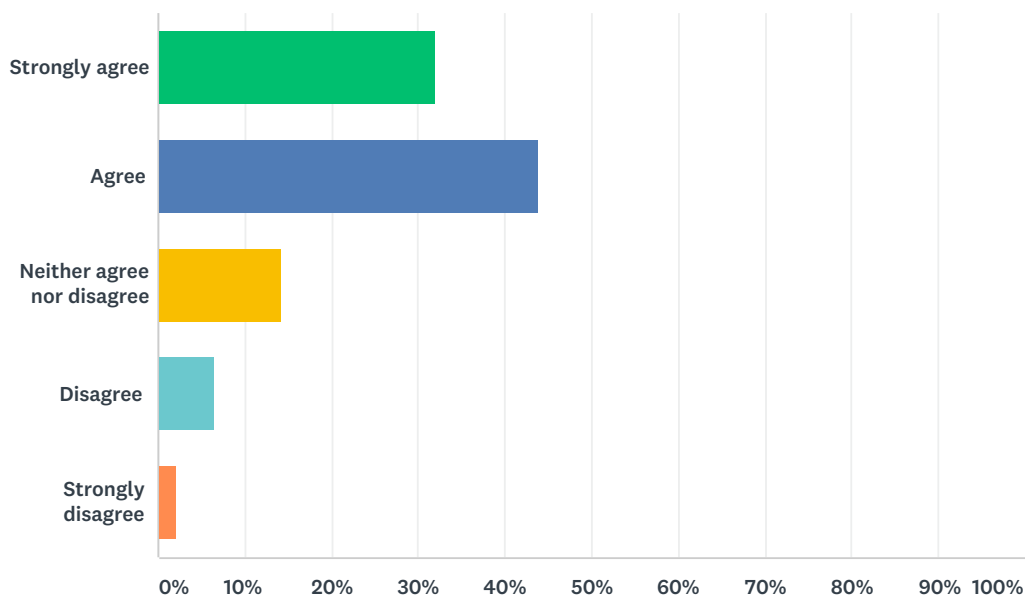
Answered: 140 Skipped: 3



ANSWER CHOICES	RESPONSES	
Strongly agree	4.29%	6
Agree	38.57%	54
Neither agree nor disagree	34.29%	48
Disagree	21.43%	30
Strongly disagree	1.43%	2
TOTAL		140

Q23 I would like to be able to use a mobile phone app to learn more about the plants in the Arboretum.

Answered: 141 Skipped: 2

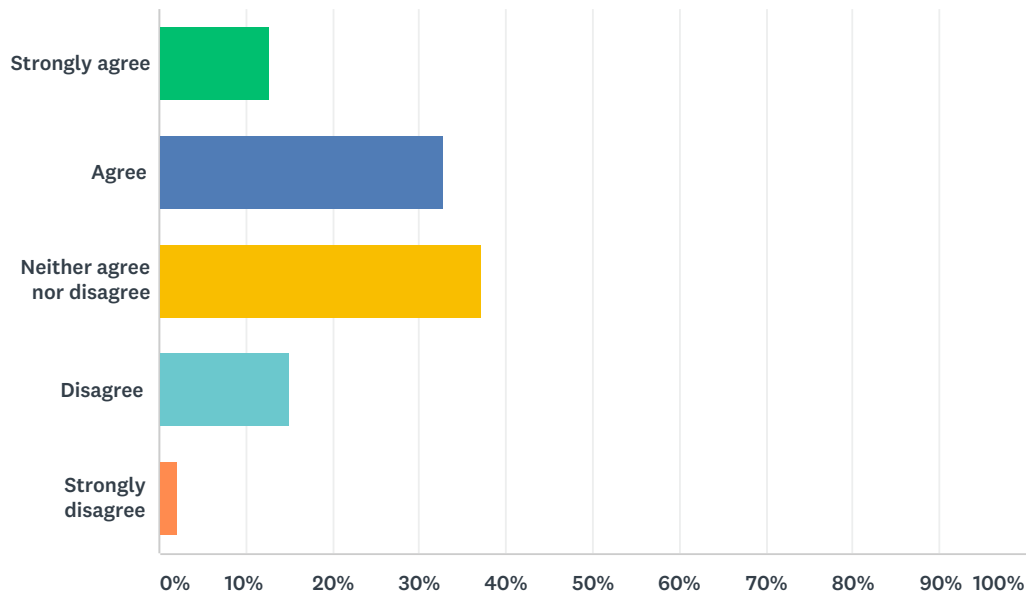


ANSWER CHOICES	RESPONSES	
Strongly agree	31.91%	45
Agree	43.97%	62
Neither agree nor disagree	14.18%	20
Disagree	6.38%	9
Strongly disagree	2.13%	3
TOTAL		141

#	ADD A COMMENT:	DATE
1	if I had a phone it would be helpful	9/15/2019 4:51 PM
2	Headphones too	9/15/2019 3:29 AM
3	i think that would be a nice feature for the people that want to learn and delve a bit deeper into what the arboretum has to offer	8/25/2019 10:24 AM
4	Good idea!	8/18/2019 7:42 AM
5	don't have a smart phone	8/6/2019 7:19 AM
6	I think this a good idea in general and for attracting younger people. I don't think I would personally use it. But I think there are lots of people that would.	8/1/2019 12:35 AM
7	I don't use apps but people do	7/31/2019 2:59 AM
8	See answer #15	7/25/2019 11:50 AM
9	Great idea	7/25/2019 2:44 AM
10	It would be great to be able to look up plants on my phone and then to be able to save the ones I like to a favorites	7/24/2019 5:09 AM

Q24 I would like to see some lawn areas at the Arboretum converted to other less water-intensive uses.

Answered: 140 Skipped: 3

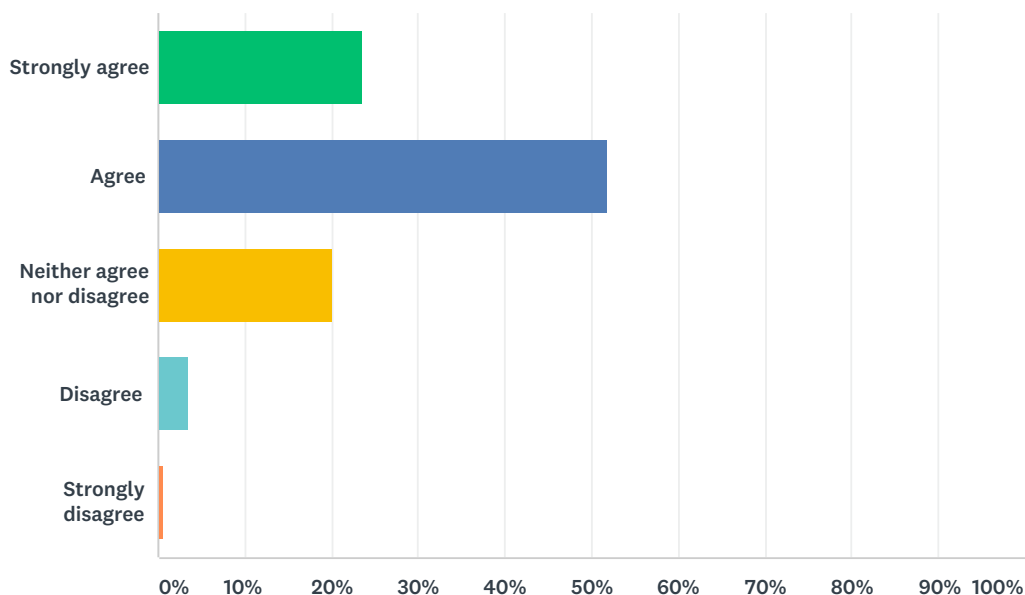


ANSWER CHOICES	RESPONSES	
Strongly agree	12.86%	18
Agree	32.86%	46
Neither agree nor disagree	37.14%	52
Disagree	15.00%	21
Strongly disagree	2.14%	3
TOTAL		140

#	ADD A COMMENT:	DATE
1	A high desert landscape with native plants rocks	9/15/2019 3:29 AM
2	Finding an aesthetically pleasing, valuable alternative could be an amazing teaching tool for the rest of us	9/11/2019 2:28 PM
3	I would love to see more shrubs and flowers.	8/18/2019 7:42 AM
4	depends on what/how changes are made	8/17/2019 8:00 AM
5	There is enough area to the north or south lawns to create 1) permaculture demo site, 2) man-made mounded trails with evergreens to mimic Cascades, add petrified ginko area that can also be played on, increase visitor appeal for the wetland channels in NE, actual picnicking areas around features already there.	8/6/2019 11:58 AM
6	I think lawn areas are important when events are held and for wild life,.	7/29/2019 8:03 AM
7	But I am not a fan of cacti.. Perhaps a shrub-steppe section.	7/25/2019 11:50 AM
8	will leave that decision to those who know best	7/24/2019 5:04 AM

Q25 I would like to see more native shrubs and perennials at the Arboretum.

Answered: 139 Skipped: 4

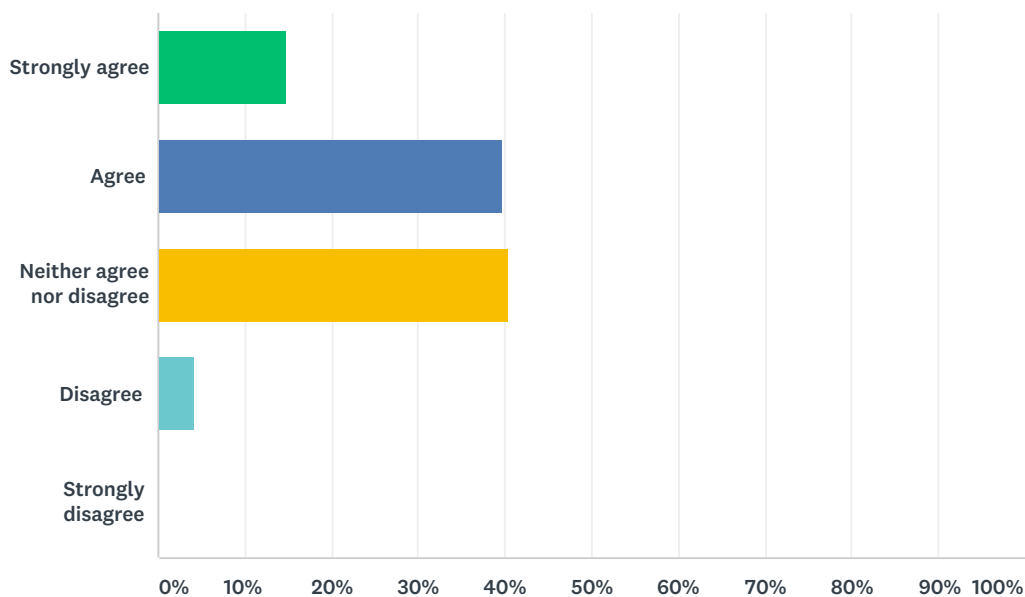


ANSWER CHOICES	RESPONSES	
Strongly agree	23.74%	33
Agree	51.80%	72
Neither agree nor disagree	20.14%	28
Disagree	3.60%	5
Strongly disagree	0.72%	1
TOTAL		139

#	ADD A COMMENT:	DATE
1	it would be nice to have only native plants in some areas	9/15/2019 4:51 PM
2	I am a native plant enthusiast/proponent, but I enjoy the ornamentals at the Arboretum too. I think there is always room for increasing public knowledge of native/natural habitats.	9/11/2019 2:28 PM
3	but I fear there would be deer damage!	9/11/2019 9:35 AM
4	certain areas could be brightened up with some perennials and stuff	8/25/2019 10:24 AM
5	It is an Arboretum not a Botanical Garden	8/15/2019 10:46 AM
6	The shrub understory of a forest is important. Having collections of understory shrubs would also be interesting ie Spirea, Goats beard, Ocean Spray, Snowberry, Dogwood Osier. Low maintenance.	8/6/2019 11:58 AM
7	Provided they can be cared for.	7/29/2019 8:03 AM
8	I liked the fact that non-native trees and other plants grow in Yakima's climate.	7/26/2019 1:50 PM
9	I like to see things that I can use as inspiration in my own garden. I'm especially interested in seeing a landscape with native plants.	7/24/2019 5:09 AM

Q26 I would like to see more shrubs in general incorporated into the plantings at the Arboretum.

Answered: 141 Skipped: 2

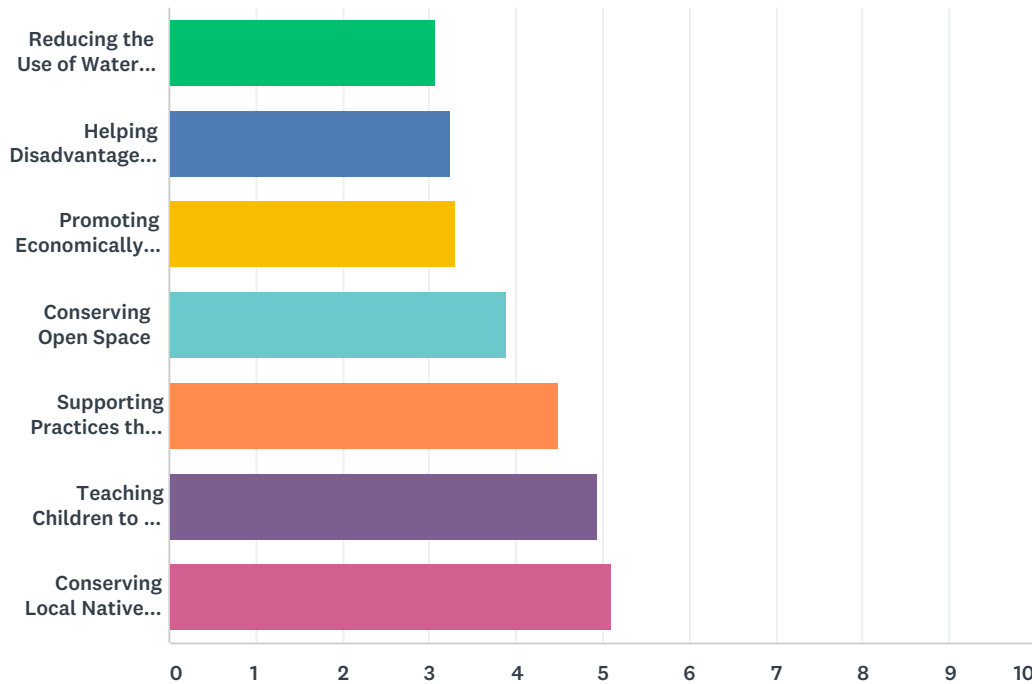


ANSWER CHOICES	RESPONSES	
Strongly agree	14.89%	21
Agree	39.72%	56
Neither agree nor disagree	40.43%	57
Disagree	4.26%	6
Strongly disagree	0.00%	0
TOTAL		141

#	ADD A COMMENT:	DATE
1	the deer would eat them	9/12/2019 1:25 PM
2	but those deer! :(9/11/2019 9:35 AM
3	more shrubs and trees never really hurt an area	8/25/2019 10:24 AM
4	Shrubs can be so beautiful and interesting	8/13/2019 11:16 AM
5	might be a safety issue	8/5/2019 3:12 PM
6	I don't object to shrubs. I hope that a landscape designer would know the aesthetics.	7/25/2019 11:50 AM
7	I'd like more perennial gardens	7/24/2019 10:37 AM
8	Seeing a variety of plant material working together helps me think of ideas for my own garden.	7/24/2019 5:09 AM

Q27 Please assign a rank (1-7) to each of the following in level of importance to you and your family. (1=Most Important, 7=Least Important):

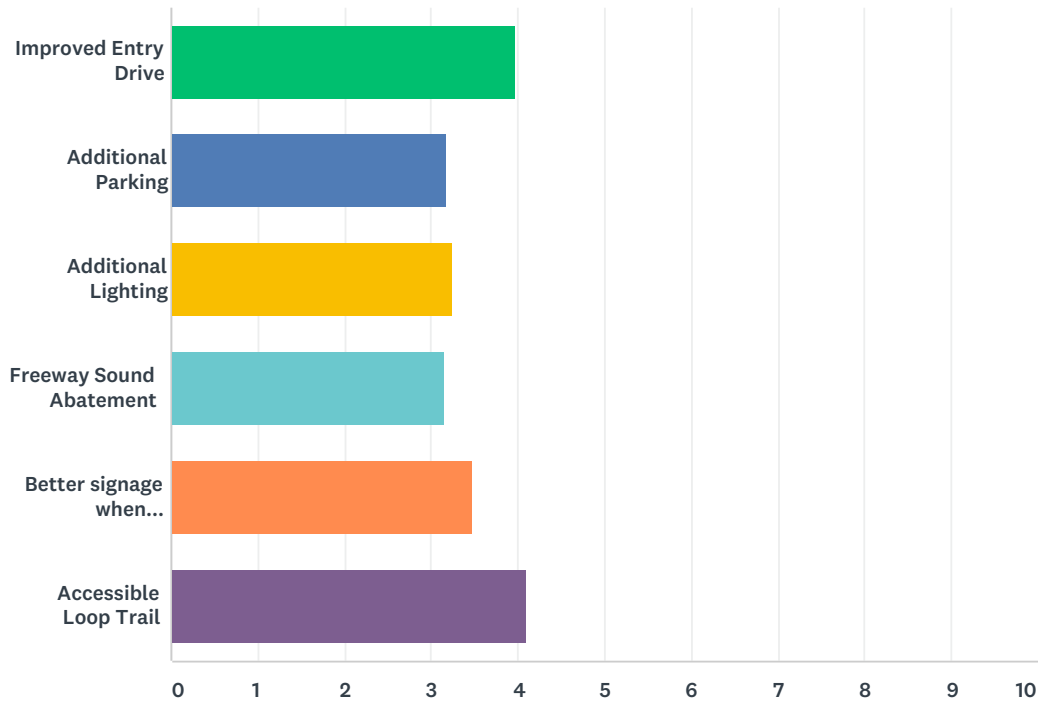
Answered: 137 Skipped: 6



	1	2	3	4	5	6	7	TOTAL	SCORE
Reducing the Use of Water (Xeric Gardening)	0.00% 0	8.27% 11	17.29% 23	12.78% 17	20.30% 27	18.05% 24	23.31% 31	133	3.08
Helping Disadvantaged Youth	9.16% 12	11.45% 15	7.63% 10	6.11% 8	19.85% 26	22.90% 30	22.90% 30	131	3.24
Promoting Economically Sustainable Communities	4.51% 6	7.52% 10	12.03% 16	21.05% 28	18.05% 24	18.05% 24	18.80% 25	133	3.30
Conserving Open Space	13.24% 18	10.29% 14	16.18% 22	16.18% 22	14.71% 20	15.44% 21	13.97% 19	136	3.89
Supporting Practices that Save Pollinators. (bees, butterflies, etc.)	11.36% 15	24.24% 32	18.94% 25	15.15% 20	14.39% 19	9.85% 13	6.06% 8	132	4.49
Teaching Children to be Good Stewards of Nature	30.66% 42	17.52% 24	15.33% 21	14.60% 20	5.11% 7	7.30% 10	9.49% 13	137	4.94
Conserving Local Native Habitat	30.83% 41	21.05% 28	12.78% 17	15.04% 20	8.27% 11	7.52% 10	4.51% 6	133	5.11

Q28 Please assign a rank (1-6) to each of the following potential FUTURE INFRASTRUCTURE IMPROVEMENTS, according to their importance. (1=Most Important, 6=Least Important)

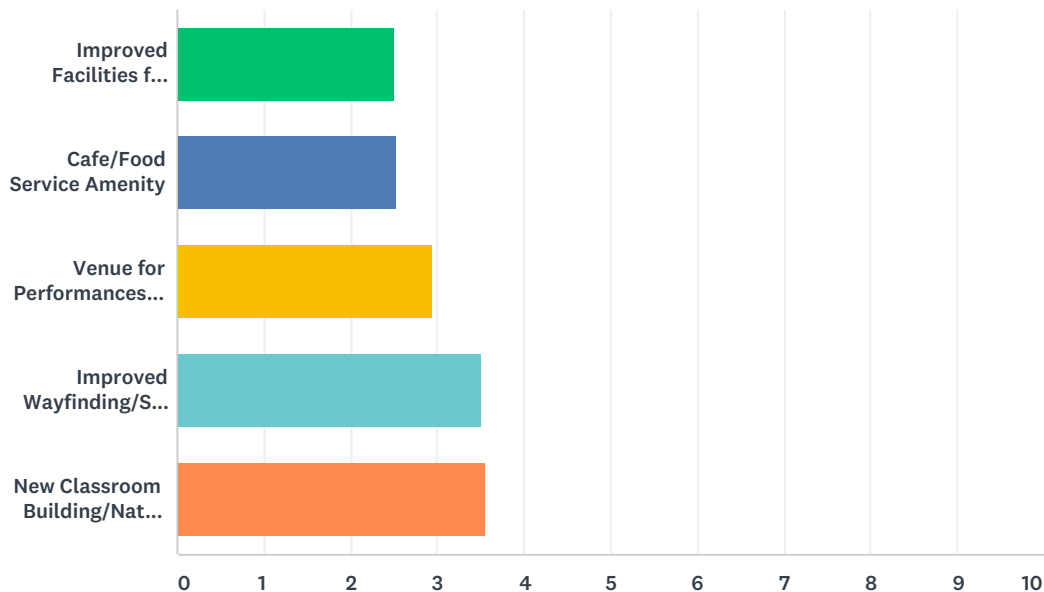
Answered: 133 Skipped: 10



	1	2	3	4	5	6	TOTAL	SCORE
Improved Entry Drive	22.14% 29	19.08% 25	24.43% 32	11.45% 15	14.50% 19	8.40% 11	131	3.98
Additional Parking	6.87% 9	10.69% 14	19.85% 26	31.30% 41	17.56% 23	13.74% 18	131	3.17
Additional Lighting	6.06% 8	18.18% 24	19.70% 26	18.94% 25	24.24% 32	12.88% 17	132	3.24
Freeway Sound Abatement	18.60% 24	16.28% 21	7.75% 10	11.63% 15	11.63% 15	34.11% 44	129	3.16
Better signage when approaching the Arboretum	13.08% 17	19.23% 25	16.15% 21	17.69% 23	21.54% 28	12.31% 16	130	3.48
Accessible Loop Trail	34.85% 46	17.42% 23	12.88% 17	8.33% 11	10.61% 14	15.91% 21	132	4.10

Q29 Please assign a rank (1-5) to each of the following potential FUTURE SITE AMENITIES according to their importance. (1=Most Important, 5=Least Important)

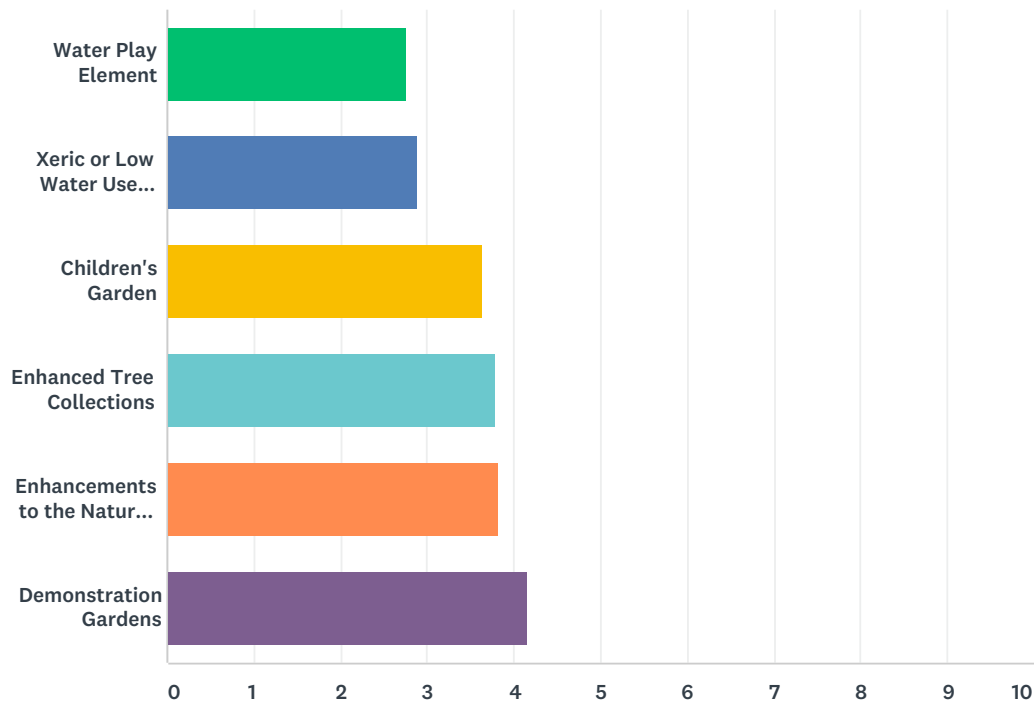
Answered: 133 Skipped: 10



	1	2	3	4	5	TOTAL	SCORE
Improved Facilities for Private Events	9.30% 12	12.40% 16	19.38% 25	37.98% 49	20.93% 27	129	2.51
Cafe/Food Service Amenity	11.81% 15	18.11% 23	16.54% 21	18.11% 23	35.43% 45	127	2.53
Venue for Performances or Other Small Public Events	12.98% 17	26.72% 35	19.85% 26	22.14% 29	18.32% 24	131	2.94
Improved Wayfinding/Signage within the Arboretum	37.69% 49	13.85% 18	23.85% 31	10.77% 14	13.85% 18	130	3.51
New Classroom Building/Nature Center	29.23% 38	29.23% 38	20.00% 26	10.77% 14	10.77% 14	130	3.55

Q30 Please assign a rank (1-6) to each of the following potential FUTURE LANDSCAPE ENHANCEMENTS, according to their importance. (1=Most Important, 6=least Important)

Answered: 133 Skipped: 10



	1	2	3	4	5	6	TOTAL	SCORE
Water Play Element	8.66% 11	13.39% 17	12.60% 16	12.60% 16	16.54% 21	36.22% 46	127	2.76
Xeric or Low Water Use Gardens	9.92% 13	12.98% 17	13.74% 18	16.03% 21	14.50% 19	32.82% 43	131	2.89
Children's Garden	12.40% 16	17.83% 23	24.03% 31	20.16% 26	17.83% 23	7.75% 10	129	3.64
Enhanced Tree Collections	24.22% 31	17.97% 23	10.94% 14	14.06% 18	24.22% 31	8.59% 11	128	3.78
Enhancements to the Natural Areas near the Yakima River	20.77% 27	17.69% 23	16.15% 21	21.54% 28	16.92% 22	6.92% 9	130	3.83
Demonstration Gardens	25.00% 32	20.31% 26	23.44% 30	14.84% 19	9.38% 12	7.03% 9	128	4.16

Q31 What ideas do you have to improve the Arboretum that may not be reflected in your previous answers?

Answered: 61 Skipped: 82

#	RESPONSES	DATE
1	Partner with the Greenway & Humane Society to expand the dog park to include that triangular area adjacent to the arboretum & greenway path. Also, reach out to your neighbors to the west for accessing the shoreline area of the large lake adjacent to the arboretum. There is great potential for this area.	9/21/2019 7:50 PM
2	The Arboretum is a tree museum. That should change.	9/17/2019 10:18 AM
3	To reduce noise utilize areas farthest from traffic [paths, plantings] and water features. pollinators/ecosystem/insect/invertebrate displays, native american plants/interpretation. More paths thru natural areas. acoustic music performances. Tree plantings to reduce traffic noise. More night activities, e.g. nature walk [nocturnal invertebrates/birds], guided snowshoeing, noise cancelling headphones tour. Could have additional parking and picnic area with tables and scenic view at the south end; 4th of July member event where fireworks from nearby displays could be viewed.	9/15/2019 4:51 PM
4	Larger Outdoor space with retractable cover with large natural stone surface suitable for dancing	9/15/2019 3:29 AM
5	None	9/13/2019 6:17 PM
6	Nothing	9/13/2019 11:45 AM
7	No paths, no more buildings	9/12/2019 3:20 PM
8	It's a tree museum, so the trees should be impeccably cared for, sprayed, fertilized, watered, pruned.	9/12/2019 1:25 PM
9	Dancing girls (kidding)	9/12/2019 2:22 AM
10	Increase accesibility for wheelchair users, especially on pathways	9/11/2019 6:32 PM
11	I would like to see lower cost programs for children, and more programs for children in general. I think education is a very important function for the Arboretum, and educational accessibility could be improved with bilingual signage or handouts as well. Public outreach to enhance the city beyond the arboretum would also be terrific - I'm thinking of Seattle's street tree program, which distributes a number of diverse, good-sized trees with watering bags, and expects those receiving them to attend a training on how to plant them and requires that the trees be cared for.	9/11/2019 2:32 PM
12	Increase signage in Spanish Actively build Spanish speaking membership	9/11/2019 2:26 PM
13	reate apprebnticeship affiliations with e.g. CWU.	9/11/2019 12:18 PM
14	could improvements to signage, decor in the form of artwork, more pathway markers be incorporated with local artists, sign companies, Maker Space, Mighty Tieton artists, Perry tech and high schools as learning projects?	9/11/2019 11:49 AM
15	I like it the way it is.	9/11/2019 10:59 AM
16	The Huntington in San Marino, CA is a good study model FYI	9/11/2019 10:47 AM
17	None	9/11/2019 9:58 AM
18	Enhanced student field trip experience	9/11/2019 9:47 AM
19	I love it so much the way it is, but all of your ideas sound terrific.	9/11/2019 9:24 AM
20	Building a tower visible to people entering by car and providing an elevated overview of the river, trails and trees for those who climb it. Using river rock masonry construction would be appropriate.	9/3/2019 2:48 PM
21	Accessible water for Arboretum-led activities	8/26/2019 7:37 AM

22	possibly implementing a fee or yearly membership or a minimal one time yearly per car fee or membership where a pass would have to be bought and good for one year where you would receive a small sticker or something and could just have a fee station where people could sign up and be mailed their membership sticker for 5 or ten dollars to bring some funds in as well as deter the people who use the arboretum as a place to come and loiter in their cars and not use the facilities as they are intended or something to that effect. - The name of the arboretum could be considered to be changed to the yakima arboretum or the central washington arboretum.... since it was originally created with clubs from all over the area i can see the reason for the current name but how many of those area clubs are still currently involved? also i think the yakima arboretum or the central washington arboretum sounds more prestigious or of more value than the vagueness of the yakima area arboretum, especially considering those areas that the name was made for are not really involved in it any longer.	8/25/2019 10:24 AM
23	Promote a higher visibility and accessibility to the Arboretum	8/24/2019 2:58 AM
24	More info on pathway	8/21/2019 11:44 AM
25	Keep up with the times - you're stuck in 1995.	8/20/2019 12:30 PM
26	reflect more of what Yakima is including a diverse culture	8/20/2019 3:04 AM
27	Include sculptures and other art around the areas	8/19/2019 3:40 PM
28	I would like to contribute to a memorial planting to commemorate the work that Linda Knutson did for the Arboretum and the garden community.	8/18/2019 7:42 AM
29	So glad there are now day camps for kids and other educational activities that address the mission of the arboretum	8/17/2019 8:00 AM
30	Restoration to riparian area or establish a riparian garden demonstrating stream bank species like willows, cottonwoods, native dogwood, etc.	8/17/2019 1:49 AM
31	n/a at this time	8/16/2019 3:59 AM
32	Increase public awareness of the facility and what they have to offer free to the public	8/15/2019 11:15 PM
33	Provide state wide education experiences/conferences/symposiums re environmental issues. This could take the place of auction fundraising.	8/15/2019 10:46 AM
34	Have more events for youths	8/14/2019 4:31 AM
35	I am deeply concerned about the homeless shelter being so close. I think twice before coming to the arboretum.	8/13/2019 11:37 AM
36	Keep communicating as well as you have been on FB with interesting posts/events. Do more things like the brick sale to raise money - benches with donor's names inscribed? Like the promenade around Bellevue Park. I have a brick that my children bought for me for Mother's Day. I love it! We made a special trip over from Kirkland to find it last weekend.	8/13/2019 11:16 AM
37	Engage the community in creative and even unusual ways to let them know the Arboretum is there for them. Also create campaigns to let people know that by spending time visiting it regularly can help create a sense of well being and more joy in their lives.	8/13/2019 9:12 AM
38	Encouraging more bird habitats.	8/13/2019 8:42 AM
39	Bike cops patrolling the entire greenway to provide a safe environment to reach the arboretum by foot or bike.	8/12/2019 3:56 AM
40	more educational opportunities	8/5/2019 3:12 PM
41	Would like to see more info on becoming a member of arboretum	8/2/2019 3:21 PM
42	Improve the appearance of the area north of the main parking lot, the area around the shed. Improve signage & public awareness that the Arboretum exists & where it is.	8/1/2019 12:35 AM
43	A professional like arborist or a curator to over see the integrity of the collections that you do have. This place has such potential! I feel as though things are just almost great but that it's lacking even just one thing done really well! Follow through!	7/31/2019 2:59 AM
44	Communicating events and opportunities available at the Arboretum, such as classes for ALL ages and interests.	7/29/2019 8:03 AM
45	Label the Roses	7/27/2019 4:56 AM

46	Moving fountains with a light show!	7/26/2019 2:49 PM
47	I visited the arboretum once and that was several years ago. As I believe that the best, simplest and easiest way to save the planet from global warming is planting trees, I am for more trees at the arboretum.	7/26/2019 1:50 PM
48	N/A	7/26/2019 5:22 AM
49	It's great as is, a beautiful relaxing atmosphere.	7/25/2019 12:59 AM
50	More child and adult classes on a variety of topics in nature.	7/24/2019 5:47 PM
51	None	7/24/2019 2:20 PM
52	Educate public as to what the Arboretum has to offer	7/24/2019 12:54 PM
53	maintain the wide open garden feeling where specialized "gardens" lie within, keep the vastness and natural beauty	7/24/2019 11:37 AM
54	More garbage cans- less hobos and limos?	7/24/2019 10:59 AM
55	would like to see much more interpretive info and native or perennial plantings that can enhance landscapes in the community	7/24/2019 10:37 AM
56	A more tolerant approach for activities in some areas.	7/24/2019 8:47 AM
57	Nothing, it's beautiful and wonderful as it is.	7/24/2019 7:08 AM
58	New Recreation area for science in the summer.	7/24/2019 6:35 AM
59	Please plant the AGricultural Trees and plants that the Yakima Valley has and put descriptions ie Apple Tree and HOPS etc...	7/24/2019 6:08 AM
60	Keep up the great work!	7/24/2019 5:15 AM
61	better parking, with hard top; better, bigger area for plant sale	7/24/2019 5:09 AM

Q32 What's the most important thing for the planning committee to consider when creating a new Master Plan for the Yakima Area Arboretum?

Answered: 82 Skipped: 61

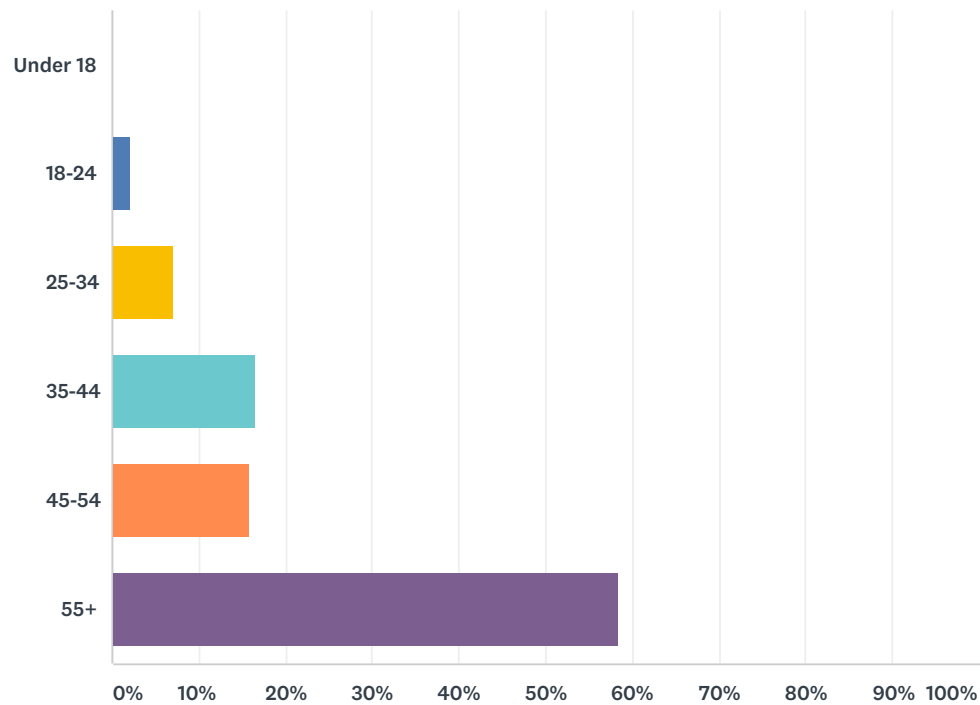
#	RESPONSES	DATE
1	Include the Yakima Greenway & Humane Society, & owners of the large lake next to you. You're on the right track by conducting this public survey!	9/21/2019 7:50 PM
2	This has already been done and nothing was done with the results. Why will this be any different?	9/17/2019 10:18 AM
3	Noise abatement	9/15/2019 4:51 PM
4	Ecological sustainability and how to appeal more to younger generations	9/15/2019 3:34 AM
5	Create a space that represents our rich cultural Hispanic community Yakima just celebrated a 20 year anniversary with our Sister City Morelia the capital of the Mexican State of Michoacan. The majority of people from Mexico in the Yakima valley come from the state of Michoacan.	9/15/2019 3:29 AM
6	Access and preservationist	9/13/2019 6:17 PM
7	Nothing	9/13/2019 11:45 AM
8	long-term vision	9/13/2019 12:33 AM
9	Demonstration gardens, tree examples that people can plant in Yakima	9/12/2019 3:20 PM
10	Be sure to plan so there is a distinction between it being an arboretum and not a park to go play in, no dogs, no picnics, etc. I like seeing beautiful trees, demonstration gardens such as the rose garden, pond and Japanese garden. These types of features set it apart from the rest.	9/12/2019 1:25 PM
11	Maintaining all that is there, at minimum.	9/12/2019 2:22 AM
12	Asking the public what they would like to see.	9/11/2019 10:24 PM
13	Preservation of native ecosystems and habitats that protect resources for future generations	9/11/2019 6:32 PM
14	Appealing to a wider slice of the local community and visitors to the area	9/11/2019 2:38 PM
15	It's hard to tell from going to the Arboretum that it is an integral part of Yakima's designation as a tree city. I think that you'd like to be a dynamic part of the greater community, much more than a static museum of trees, and this may be happening, but it is not clear from the messaging and outreach I've seen so far. I think any way to achieve greater tree evangelism is a positive thing.	9/11/2019 2:32 PM
16	Focus on ways to increase individuals' interaction with nature/plants -- not on becoming something else. Amenities (lighting, food, rooms for rental) should be secondary to your mission.	9/11/2019 2:28 PM
17	Importance of English and Spanish Speakers learning about our local eco-systems and how to care for them	9/11/2019 2:26 PM
18	Demographics of Yakima's population	9/11/2019 12:18 PM
19	fundraising assisted by advertising in the community as a location for more events	9/11/2019 11:49 AM
20	Preserving it's naturalism.	9/11/2019 10:59 AM
21	How to bring more people to the Arboretum! More trees, too! A tree planting plan, education that planting trees is our #1 solution to help the planet. This must be widely promoted! Transportation options in creative ways that may not include a motor vehicle etc.	9/11/2019 10:47 AM
22	how to benefit the most people possible	9/11/2019 10:03 AM
23	Plant selection and placement, education and Linda Kundson memorial garden	9/11/2019 9:58 AM
24	Please consider collaboration with the Greenway as you are both amazing community amenities!	9/11/2019 9:58 AM
25	Protecting the trees and habitat	9/11/2019 9:47 AM

26	Maintaining and improving a beautiful place where people can gather, enjoy, find solitude, take photos, learn about nature, find beauty, peace and comfort in a free setting.	9/11/2019 9:35 AM
27	Sustainability of the programs.	9/11/2019 9:24 AM
28	increase visibility and ease of use for people who value trees and want to pass on knowledge of trees to the next generation.	9/3/2019 2:48 PM
29	Accessible pathway, new entrance with gate or kiosk, if possible a mile long loop trail for walkers, children's nature play area with water feature.	8/26/2019 7:39 AM
30	Expansion of facilities for programs and events throughout the years is integral to expanding the Arboretum's reach.	8/26/2019 7:37 AM
31	Perhaps make the survey available in Spanish? You're leaving out a large sub-population of the area if the survey is only in English.	8/26/2019 4:31 AM
32	What the original idea and vision was for the arboretum and try to regain some of the interest from the wide range of garden clubs that originally were part of the creation and vision for the arboretum	8/25/2019 10:24 AM
33	Promoting the use and planting of trees for both residential and community/commercial purposes.	8/24/2019 2:58 AM
34	Long term community needs.	8/22/2019 12:02 PM
35	Link to greenway	8/21/2019 11:44 AM
36	Your audience	8/20/2019 12:30 PM
37	more community involvement, more outreach to groups, more PR	8/20/2019 3:04 AM
38	Keep it merged with nature	8/19/2019 3:40 PM
39	Outreach to all populations of Yakima about the arboretum's work and place in the community	8/19/2019 3:27 PM
40	Don't pave it all over! Remember that the tree collection and quiet areas are the soul of the place. If it's all about large parking lots and big venues, it will be a shame.	8/18/2019 7:42 AM
41	Maintaining the arboretum's unique role as a place to learn about trees & botany, promoting education about plants and their importance.	8/17/2019 8:00 AM
42	Refine mission statement then plan with the mission in mind.	8/17/2019 1:49 AM
43	Understanding what the community values for the Arboretum.	8/16/2019 3:59 AM
44	Long term growth	8/15/2019 11:15 PM
45	Pathways, signage that lets me know why I am there. (tree identification knowledge) I have been there several times but just heard of the edible garden.	8/15/2019 10:46 AM
46	People who care about environment and community plus thinking out of the box.	8/14/2019 4:31 AM
47	Adhering to the Master Plan's original plans.	8/13/2019 11:37 AM
48	More pathways leading to beauty. Maybe to secret gardens.	8/13/2019 11:16 AM
49	Including people from all walks of life, with diverse points of view will help create an inclusive plan for the future.	8/13/2019 9:12 AM
50	Planning space for more educational and special events.	8/13/2019 8:42 AM
51	Education of youth. Connecting with schools. Family recreation.	8/13/2019 5:11 AM
52	Long term engaging use by the broadest community members for learning about the environment	8/13/2019 3:25 AM
53	Sound of cars from the freeway is a major distraction from the beautiful arboretum.	8/12/2019 3:56 AM
54	#1 - add cultural diversity elements to expand interest. Japanese Garden and Rose Gardens are awesome. How about a Mexican Sonora exhibit, linking with local landscapers? Hillside Cactus Botanical can help. Who will use YAA 20 years from now? #2 - WSDOT's plans for expanding the freeway. #3 More connection with the Greenway Foundation for preserving/enhancing wetlands & Yakima banks. #4 - How can you increase sustainable membership?	8/6/2019 11:58 AM
55	Do not forget that you are a "museum" for plants, nature, and how planting green things helps us all. Education of the visiting public should be a top priority.	8/5/2019 3:12 PM
56	Fiscal responsibility with more rental potential	8/1/2019 2:28 PM

57	Modernization, future development, and new technology	8/1/2019 12:35 AM
58	The noise is an issue. Also the staff is limited. I wld encourage them to keep in mind the sort of upkeep that it will take to make your ideas possible. Or maybe just some ideas to help the current staff make the current collection easier to care for.	7/31/2019 2:59 AM
59	The Master Plan should include things for all ages and ethnic backgrounds.	7/29/2019 8:03 AM
60	Overall plan	7/27/2019 4:56 AM
61	Don't clutter it up with signs. Camouflage the signage. Keep the attention on the beautiful trees.	7/26/2019 2:49 PM
62	Trees, lots more trees. Also I think the natural area at the Yakima River could use some "sprucing up". I LOVED the arboretum when I visited and hope to visit again.	7/26/2019 1:50 PM
63	Expansion of facilities to allow for future growth,	7/26/2019 5:22 AM
64	The arboretum is a vital part of our community and one of my favorite places in Yakima.	7/26/2019 2:15 AM
65	Ease in implementation (time and money). Simple things first?	7/25/2019 11:50 AM
66	It's an arboretum. While any additional amenities could attract more people to YAA and potentially help fund it's activities, never forget the underlying purpose is education and providing an area to enjoy nature.	7/25/2019 11:26 AM
67	Appeal and use by the most amount of people	7/25/2019 2:44 AM
68	Keep it as serene and accessible as current.	7/25/2019 12:59 AM
69	Accessibility.	7/24/2019 5:47 PM
70	Reflecting the community desires	7/24/2019 2:20 PM
71	Community involvement	7/24/2019 12:54 PM
72	remember your audience	7/24/2019 11:37 AM
73	Do not lose GREEN SPACE	7/24/2019 10:59 AM
74	letting the public know what it is	7/24/2019 10:37 AM
75	Increasing knowledge of and enjoyment by more citizens and visitors. Encourage more use for lectures whether directly related to the arboretum or not.	7/24/2019 8:47 AM
76	To enlarge if possible	7/24/2019 8:38 AM
77	Safety and nature!	7/24/2019 7:08 AM
78	Keep nature the most you can without disturbing it.	7/24/2019 6:35 AM
79	How to highlight the Arboretum as the centerpiece of Yakima.	7/24/2019 6:08 AM
80	All facilities and areas low cost to use by the public	7/24/2019 5:15 AM
81	That the arboretum is lovely just as it is, so you don't need to do anything drastic	7/24/2019 5:09 AM
82	fundraising	7/24/2019 5:04 AM

Q33 What is your age?

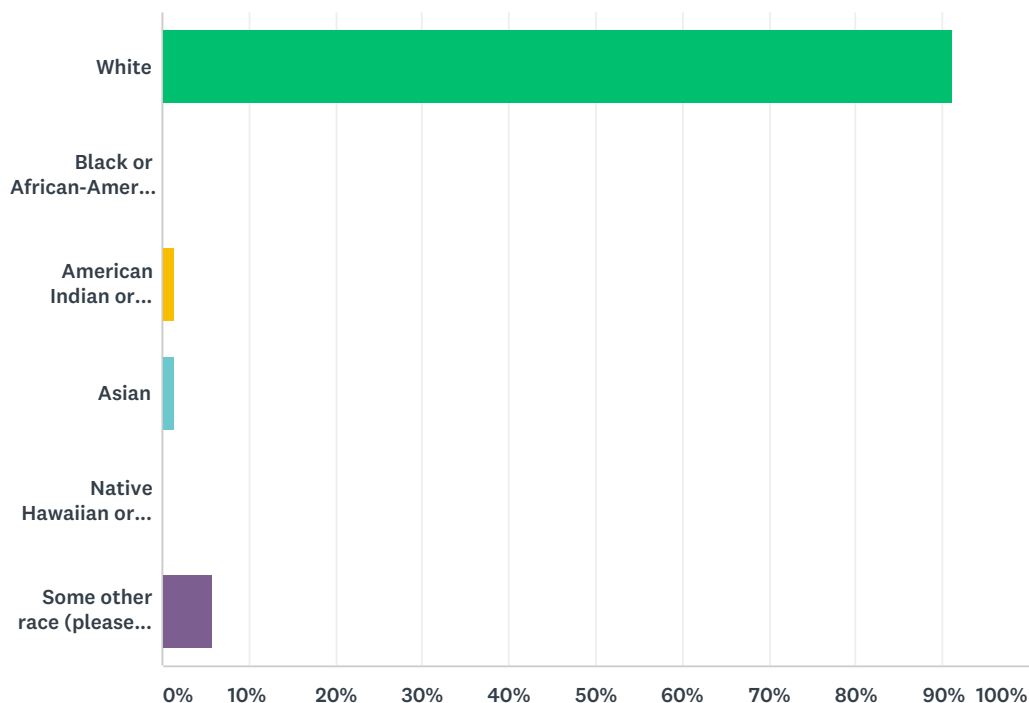
Answered: 139 Skipped: 4



ANSWER CHOICES		RESPONSES	
Under 18		0.00%	0
18-24		2.16%	3
25-34		7.19%	10
35-44		16.55%	23
45-54		15.83%	22
55+		58.27%	81
TOTAL			139

Q34 What racial group do you identify with?

Answered: 137 Skipped: 6



ANSWER CHOICES	RESPONSES	
White	91.24%	125
Black or African-American	0.00%	0
American Indian or Alaskan Native	1.46%	2
Asian	1.46%	2
Native Hawaiian or other Pacific Islander	0.00%	0
Some other race (please specify)	5.84%	8
TOTAL		137

#	SOME OTHER RACE (PLEASE SPECIFY)	DATE
1	german/irish american	8/25/2019 10:24 AM
2	American	8/19/2019 10:50 PM
3	Mexican	8/14/2019 1:34 AM
4	Hispanic	8/13/2019 2:40 AM
5	Caucasian. 'White' is a color not a race.	7/26/2019 2:15 AM
6	not relevant	7/24/2019 8:21 AM
7	Hispanic	7/24/2019 6:35 AM
8	Mexican American or Latino or Hispanic	7/24/2019 6:08 AM

Q35 In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 00544 or 94305)

Answered: 137 Skipped: 6

#	RESPONSES	DATE
1	98908	9/21/2019 7:50 PM
2	98908	9/15/2019 4:51 PM
3	98953	9/15/2019 3:34 AM
4	98901	9/15/2019 3:29 AM
5	98947	9/13/2019 6:17 PM
6	98908	9/13/2019 11:45 AM
7	98908	9/13/2019 1:31 AM
8	98902	9/13/2019 12:33 AM
9	98908	9/12/2019 3:20 PM
10	98908	9/12/2019 1:25 PM
11	98926	9/12/2019 4:50 AM
12	98942	9/12/2019 3:30 AM
13	98936	9/12/2019 2:42 AM
14	98930	9/12/2019 2:22 AM
15	98902	9/12/2019 1:54 AM
16	98908	9/11/2019 10:24 PM
17	98902	9/11/2019 6:32 PM
18	8901	9/11/2019 3:00 PM
19	98908	9/11/2019 2:38 PM
20	98947	9/11/2019 2:32 PM
21	98942	9/11/2019 2:29 PM
22	98937	9/11/2019 2:28 PM
23	98951	9/11/2019 2:26 PM
24	98902	9/11/2019 1:49 PM
25	98902	9/11/2019 1:16 PM
26	98947	9/11/2019 12:18 PM
27	98902	9/11/2019 11:49 AM
28	98901	9/11/2019 11:21 AM
29	98942	9/11/2019 10:59 AM
30	98902	9/11/2019 10:47 AM
31	98902	9/11/2019 10:16 AM
32	98901	9/11/2019 10:03 AM
33	98908	9/11/2019 9:58 AM
34	98937	9/11/2019 9:58 AM

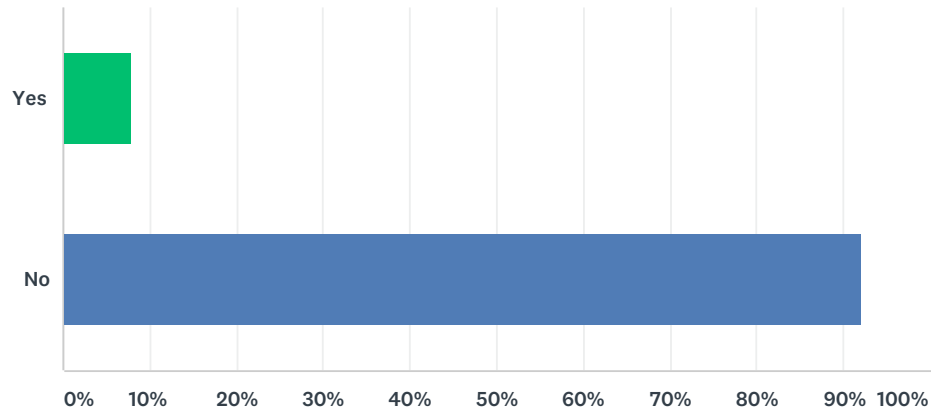
35	98909	9/11/2019 9:47 AM
36	98902	9/11/2019 9:35 AM
37	98902	9/11/2019 9:24 AM
38	98902	9/11/2019 9:22 AM
39	98908	9/10/2019 2:24 PM
40	98273	9/3/2019 2:48 PM
41	98902	8/26/2019 7:39 AM
42	98902	8/26/2019 7:37 AM
43	98901	8/26/2019 4:31 AM
44	98901	8/25/2019 10:24 AM
45	98947	8/24/2019 2:58 AM
46	98902	8/23/2019 3:58 AM
47	98937	8/22/2019 12:02 PM
48	98901	8/21/2019 11:44 AM
49	98902	8/21/2019 4:49 AM
50	98902	8/20/2019 12:56 PM
51	98901	8/20/2019 3:04 AM
52	98942	8/19/2019 11:48 PM
53	98942	8/19/2019 11:43 PM
54	98942	8/19/2019 10:50 PM
55	98942	8/19/2019 4:45 PM
56	98942	8/19/2019 3:40 PM
57	98901	8/19/2019 3:27 PM
58	98908	8/18/2019 7:42 AM
59	98942	8/18/2019 2:44 AM
60	78759	8/17/2019 8:00 AM
61	98908	8/17/2019 1:49 AM
62	98901	8/16/2019 3:12 PM
63	98908	8/16/2019 6:32 AM
64	98902	8/16/2019 4:25 AM
65	98936	8/16/2019 3:59 AM
66	98908	8/15/2019 11:15 PM
67	98953	8/15/2019 10:46 AM
68	98908	8/15/2019 3:37 AM
69	98902	8/14/2019 4:54 PM
70	98942	8/14/2019 4:31 AM
71	98902	8/14/2019 1:34 AM
72	98908	8/13/2019 11:37 AM
73	98034	8/13/2019 11:16 AM
74	98908	8/13/2019 9:43 AM
75	98942	8/13/2019 9:12 AM

76	98942	8/13/2019 8:42 AM
77	98926	8/13/2019 6:42 AM
78	98908	8/13/2019 6:25 AM
79	98908	8/13/2019 5:11 AM
80	98908	8/13/2019 3:45 AM
81	99320	8/13/2019 3:25 AM
82	98902	8/13/2019 3:02 AM
83	98908	8/13/2019 2:40 AM
84	98908	8/13/2019 2:23 AM
85	98908	8/12/2019 3:56 AM
86	98902	8/6/2019 11:58 AM
87	98908	8/6/2019 7:19 AM
88	98942	8/5/2019 3:12 PM
89	98902	8/2/2019 3:21 PM
90	98908	8/1/2019 2:28 PM
91	98902	8/1/2019 12:35 AM
92	98901	7/31/2019 2:59 AM
93	98942	7/30/2019 4:46 AM
94	98901	7/29/2019 11:12 AM
95	98908	7/29/2019 8:03 AM
96	98902	7/28/2019 3:49 AM
97	98902	7/27/2019 4:56 AM
98	99336	7/26/2019 2:49 PM
99	98117	7/26/2019 1:50 PM
100	98902	7/26/2019 6:44 AM
101	98901	7/26/2019 5:22 AM
102	98902	7/26/2019 2:15 AM
103	98908	7/25/2019 11:50 AM
104	98942	7/25/2019 11:26 AM
105	98903	7/25/2019 2:44 AM
106	98902	7/25/2019 1:18 AM
107	98942	7/25/2019 12:59 AM
108	89837	7/24/2019 5:47 PM
109	98953	7/24/2019 3:23 PM
110	98942	7/24/2019 2:47 PM
111	98902	7/24/2019 2:20 PM
112	98902	7/24/2019 1:22 PM
113	98908	7/24/2019 12:54 PM
114	98908	7/24/2019 11:59 AM
115	98901	7/24/2019 11:37 AM
116	98903	7/24/2019 10:59 AM

117	98902	7/24/2019 10:37 AM
118	98908	7/24/2019 9:55 AM
119	98902	7/24/2019 9:01 AM
120	98902	7/24/2019 8:47 AM
121	98908	7/24/2019 8:38 AM
122	98901	7/24/2019 8:21 AM
123	98902	7/24/2019 8:00 AM
124	98901	7/24/2019 7:08 AM
125	98908	7/24/2019 6:35 AM
126	98942	7/24/2019 6:18 AM
127	98901	7/24/2019 6:08 AM
128	98951	7/24/2019 5:48 AM
129	98942	7/24/2019 5:32 AM
130	98908	7/24/2019 5:26 AM
131	98942	7/24/2019 5:20 AM
132	98901	7/24/2019 5:16 AM
133	98908	7/24/2019 5:15 AM
134	98908	7/24/2019 5:12 AM
135	98903	7/24/2019 5:09 AM
136	98908	7/24/2019 5:09 AM
137	98908	7/24/2019 5:04 AM

Q36 Are you of Spanish, Hispanic or Latino origin or descent?

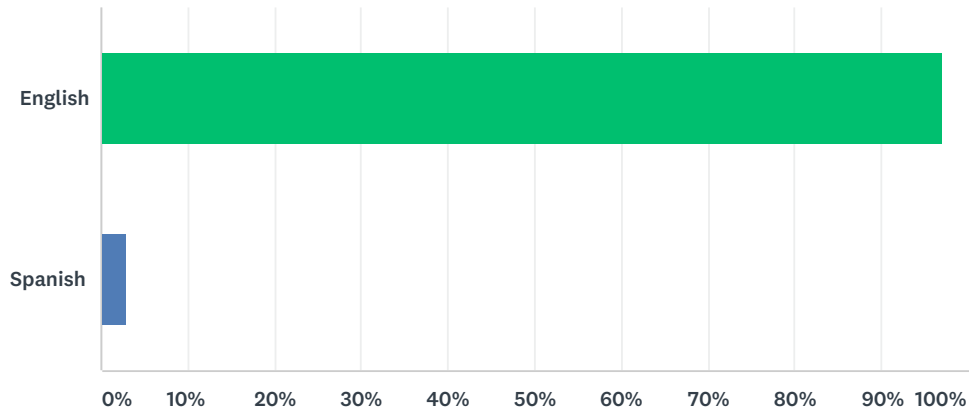
Answered: 139 Skipped: 4



ANSWER CHOICES		RESPONSES	
Yes		7.91%	11
No		92.09%	128
TOTAL			139

Q37 What language do you mainly speak at home?

Answered: 137 Skipped: 6

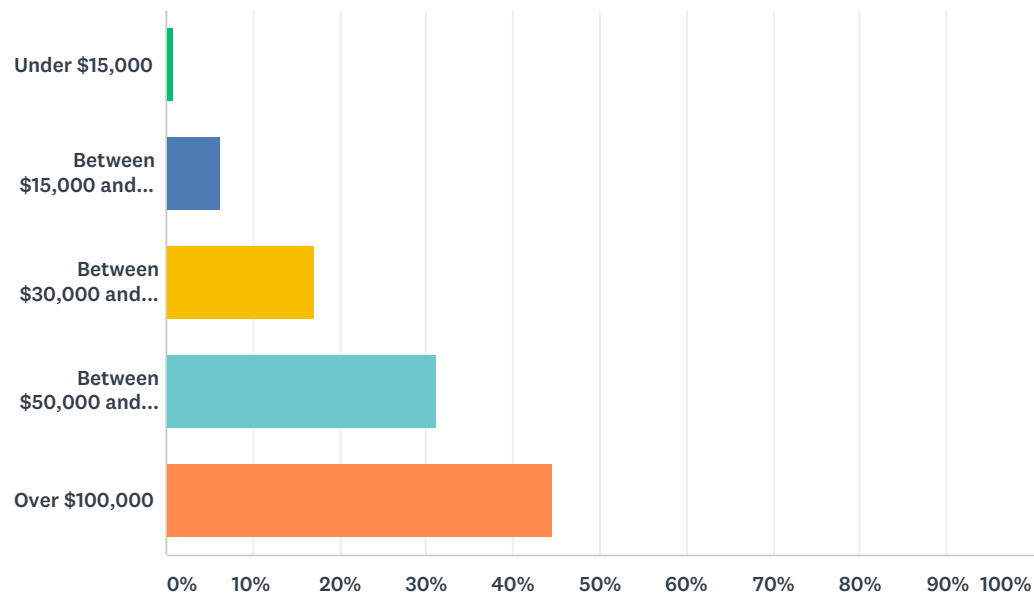


ANSWER CHOICES		RESPONSES	
English		97.08%	133
Spanish		2.92%	4
TOTAL			137

#	SOME OTHER LANGUAGE	DATE
1	Both	8/14/2019 1:34 AM
2	English	7/24/2019 6:35 AM

Q38 What is your household income?

Answered: 128 Skipped: 15



ANSWER CHOICES	RESPONSES	
Under \$15,000	0.78%	1
Between \$15,000 and \$29,999	6.25%	8
Between \$30,000 and \$49,999	17.19%	22
Between \$50,000 and \$100,000	31.25%	40
Over \$100,000	44.53%	57
TOTAL		128

CASE STUDY RESEARCH

The background of the slide is a photograph of a dense tree canopy, viewed from below looking up. The image is covered with a semi-transparent green overlay, which makes the colors appear more muted and gives it a cohesive, natural feel. The tree branches and leaves are visible through the green tint.

Yakima Area Arboretum

Case Studies

1. Fullerton Arboretum: Fullerton, California
2. Morris Arboretum: Philadelphia, Pennsylvania
3. Bellevue Botanic Garden: Bellevue, Washington
4. Red Butte Garden: Salt Lake City, Utah

Red Butte Garden



Fullerton Arboretum: Fullerton, California

Overview



Founded: 1979
Area: 26 Acres
Entrance Fee: No
USDA Hardiness Zone: 10A

[LINK TO WEBSITE](#)

The Fullerton Arboretum is located in Fullerton, California, population: 135,161. Fullerton is a diverse city with its Hispanic community constituting 35% of the population. It was established with land from the California State University at Fullerton. The Arboretum abuts Interstate 57 to the east, and Yorba Linda Avenue, a busy arterial, to the north. Along the south is student housing, and to the west are the University baseball fields.

The arboretum hosts a large variety of collection types and offers frequent classes and events to an engaged public and a member base of 1,800+. The classrooms, museum and events pavilion are frequently used for venue rental, and form an entrance sequence into the garden collections.

Summary Points:

- Located Next to Major Freeway
- Large Wedding Venue
- Visitors Center Houses Educational Facilities
- Strong Path Hierarchy

Fullerton Arboretum Gardens

Most of the garden collections are placed within four main themes at the Fullerton Arboretum; Cultivated, Woodlands, Mediterranean, and the Desert Collections. Some of the more notable exhibits are:

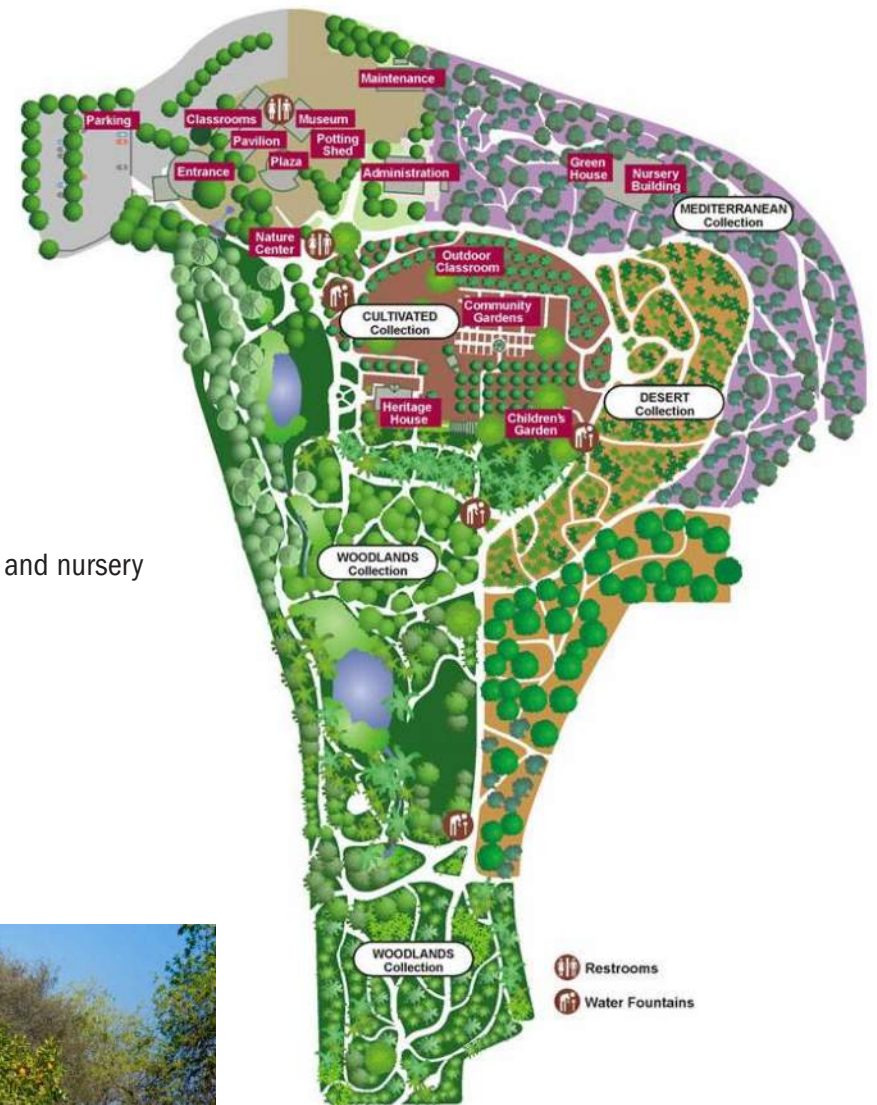
- **Community Garden Plots:** 26 spaces available to members.
- **Rare Fruits Collection**
- **Primitive Plants Collection:** Plants from the Jurassic Period over 300 million years ago.
- **Citrus Orchard**
- **Avocado Grove**
- **Children's Garden:** An outdoor classroom space for children to learn about horticulture and nursery planting.



Children's Garden Entrance



Citrus Orchard



Arboretum Collections Map

Fullerton Arboretum

Buildings

Adjacent to the parking lot, the Fullerton Arboretum welcomes guests with a large Visitors Center. Housed within the Visitors Center are multiple spaces allowing for a variety of venue rentals and educational events. Since visitors must pass by the Visitors Center to reach the garden it also is a logical stop to get information about the collections. The structures and buildings at the Fullerton Arboretum include:

- **Visitors Center** (14,250sf)
 - Bacon Pavilion
 - Museum
 - Three Classrooms
 - Public Restrooms
 - Gift Shop + Store
- **Wisteria Arbor**
- **Potting Shed**
- **Heritage House**



The Bacon Pavilion (above) is the main event venue. It is a partially covered pavilion with restrooms and an event kitchen with a wedding capacity of 300.



The Heritage House (above), built in 1894, hosts tours and historic events. It serves as the backdrop for the Victorian Tea Brunch held annually.



Wisteria Arbor (right) is the ceremony location of choice for weddings at the Arboretum. It provides an intimate setting for smaller events.

Fullerton Arboretum

Education / Classes

The Arboretum staff and the active Friends of the Fullerton Arboretum group host many educational opportunities for children and adults. The Fullerton Arboretum's educational offerings emphasize adult-oriented courses, but also include at least one educational initiative geared towards area students. The Environmental Educational Program is an outdoor science program for 3rd-7th graders. Local teachers are provided with materials and lesson plans for in the classroom, which are reinforced by visits to the arboretum.

There are also several classes offered with different frequencies throughout the year:

- **Yoga in the Garden:** Bi-weekly, \$15 fee.
- **Bonsai Planting:** Quarterly, \$25 fee.
- **Composting:** Monthly, \$10 fee. Teaches participants how to start a system for composting at home.
- **Tuesdays in the Kitchen:** Bi-weekly, \$70 fee. Demonstration-style dinners in the Pavilion Kitchen. Emphasizes arboretum-grown ingredients and a focus on healthy eating.
- **Medicinal and Edible Plants:** \$30 fee. Tour of Arboretum while learning about native plants and their benefits.
- **Nature Photography:** Quarterly, \$40 fee.
- **Paint Parties:** \$28 fee. Canvas and Paint supplies included.

Private and public tours led by a docent are also available to the public:

- **Public Nature Tours:** Bi-weekly on Saturdays.
- **Private tours** can be arranged with two months' notice and are only held on weekdays.
- **Heritage House Tours:** Saturdays with Victorian-dressed docents.



Yoga in the Garden



Educational Lecture in the Pavilion

Fullerton Arboretum

Events

In early spring, the Arboretum hosts one of its largest events, Veggiepalooza - a Vegetable plant sale. The Fullerton Arboretum uses plants sales at different times of the year as a way to engage visitors and as a funding mechanism. Most of the events and parties are hosted in May and June. The following is a list of the plant sales and events hosted by the Arboretum:

- **Summer Solstice Party:** \$75. Local Chefs create small bites that are enjoyed with local beer, wine and cocktails. A silent auction follows. (June)
- **Brews and Blues:** \$45. Evening spent on lawn enjoying craft beer and live music. (June)
- **Mother's Day Brunch:** \$50. A Victorian themed Tea/brunch celebration.
- **Veggiepalooza:** Tomato, Pepper and other veggie Plant Sale. Over 300 varieties available to purchase, geared towards the home gardener. A salsa contest starts the event made from tomato varieties available to purchase. Members receive a 10% discount. (Spring)
- **California Native Plant Sale:** Drought-tolerant plant sale. Horticulture staff on hand to help home gardeners. (Fall)
- **Cactus and Succulent Sale:** Vendors sell unique and rare specimens. (Winter)



Veggiepalooza Entrance Sign



Brews and Blues



Veggiepalooza Plants for Sale

Morris Arboretum: Philadelphia, Pennsylvania

Overview



Founded: 1933
Area: 92 Acres
Entrance Fee: \$5 - \$20
USDA Hardiness Zone: 7A

[LINK TO WEBSITE](#)

The Morris Arboretum is located 40 minutes north of downtown Philadelphia, in a quiet residential neighborhood. Currently the Arboretum has around 3000 active members. (Membership discounts are currently listed on Groupon) Members enjoy free entrance, and discounted rates to frequently offered courses, lectures, and garden events. The 92-acre Arboretum is encircled by a central paved pathway system that gives way to other less formal trails through wetlands and grassy fields.

The large parking areas are reached via a curving entry road, and serve the Guest Center where visitors can also explore the giftshop and café. The Arboretum is a popular field trip destination for school groups, and serves as a popular wedding venue.

Summary Points:

- Multiple Venue Options
- Children's Play and Education Spaces
- Developed Natural Trails + Wildlife Watching Areas
- Curated Garden Collections

Morris Arboretum

Gardens

The collections at the Morris Arboretum are well established, and demonstrate many different historic garden typologies and natural spaces. Below are some of the more notable spaces:

- **Butcher Sculpture Garden:** Temporary and permanent sculptures are integrated into the landscape. Sculpture is used to highlight the architectural elements of the plant collections.
- **Rose Garden:** With a formal layout, this garden is a venue space for ceremonies and small events. There are nearly 200 varieties.
- **Pennock Garden:** Formal English garden featuring hundreds of perennials and a water feature.
- **Fernery and Fern Garden:** Outdoor fern garden leads to the Fernery, a greenhouse space that is used to grow tropical fern varieties.
- **Wetland Trails and Birding Spaces:** The wetland areas at the Arboretum create habitats for various bird species. The Arboretum provides a self-guided tour of the wetland and natural areas, including a checklist of seasonal resident birds.



Rose Garden



Morris Arboretum

Buildings

The winding entry drive arrives at the Guest Center, a historical building from 1884, that has been recently remodeled to include a gift shop and café. Buildings are spread out across the grounds all accessible from the wide central pathway, rather than occupying one central area. Some other buildings and structures are:

- **Guest Center**
 - Compton Café
- **Out on a Limb Treehouse**
- **Dorrance H. Hamilton Fernery**
- **Hillcrest Pavilion**
- **Horticulture Center**

In 2017 the Morris Arboretum created a new outdoor classroom space for its children's programs. This space called the Nature Play area, has large cut trees and stumps for climbing, various natural objects for creating, and tools for exploring.



New Porous Asphalt Parking



Out on a Limb Treehouse

Morris Arboretum

Education / Classes

There are dozens of weekly classes and courses offered to members and non-members of the Arboretum. They are grouped as follows:
(Costs range from \$25-\$70 per class)

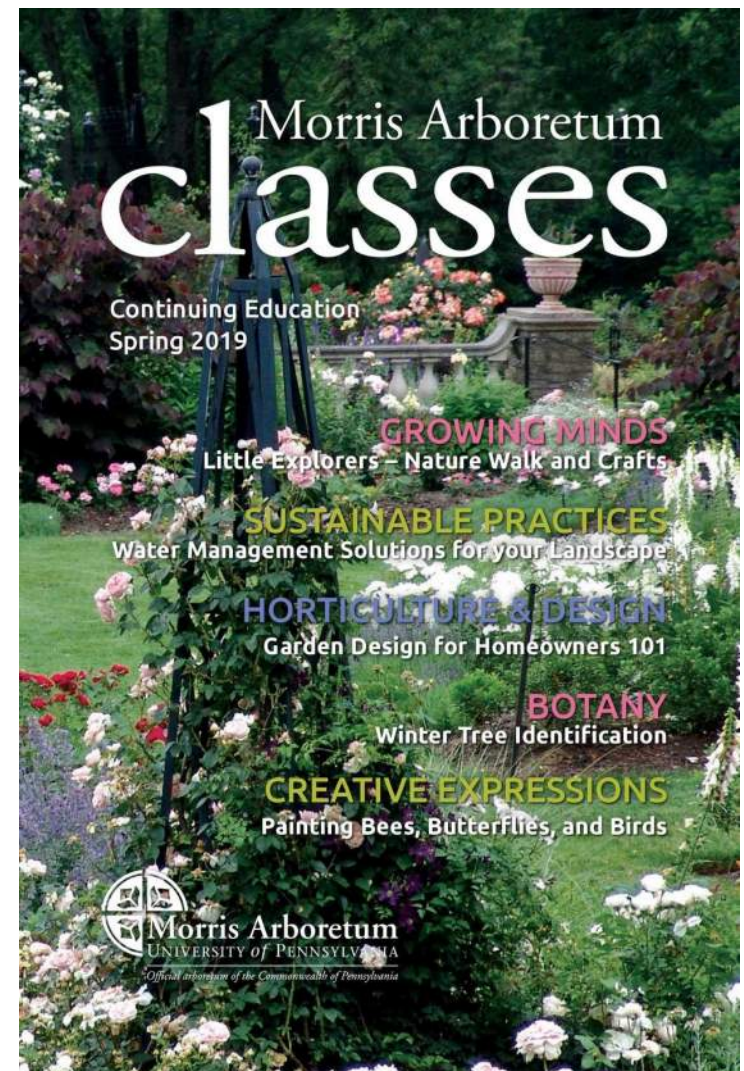
- Culinary Adventures
- Sustainable Practices
- Health and Wellness
- Horticulture and Design
- Botany
- Creative Expressions
- Birding

There are also many educational activities directed towards children, including:

- **Growing Minds Classes:** Activities like Story Time and Art during the school week and weekends.
- **Summer Camp Program:** Ages 4-11, Six weeks each summer. Cost for members: \$290 per week; Non members \$320 per week.

Private and public tours led by a docent are also available to the public:

- Public Nature Tours: Weekly on Saturdays and Sundays.
- Private tours can be arranged with three weeks' notice.



Morris Arboretum

Events

The Morris Arboretum hosts the Moonlight and Roses Gala event in June, honoring and awarding volunteers. The funds from this gala support the Summer Concert Series. For three Thursdays in June, families bring blankets and chairs to spread out on the lawn and watch the musical acts perform. Tickets are \$8. The Arboretum also serves as a very popular wedding and party venue.

Weddings are typically hosted in the large Reception Tent which is placed adjacent to the Guest Center, providing access to restrooms and the kitchen facilities. Rentals in early season are from \$3,000 and reach \$5,000 in high season. There is a 175-person capacity, and the tent has heating and cooling, hardwood floors, and weather protection flaps if needed.

The Out on a Limb Treehouse, offers additional rental space and is popular for birthday parties as well as cocktail receptions.

In the early summer a Railway Garden is set up moving model trains through Pennsylvania landmarks built from natural materials found at the arboretum. This event is very popular with children and introduces them and their parents to other summer events and camps.



Reception Tent



Moonlight and Roses Gala



Summer Concert Series

Bellevue Botanical Garden: Bellevue, Washington

Overview



Founded: 1981
Area: 53 Acres
Entrance Fee: No
USDA Hardiness Zone: 8B

[LINK TO WEBSITE](#)

Located adjacent to Wilburton park in Bellevue, Washington. The Bellevue Botanic Gardens is a free entry garden that has both garden collections and natural trails. This Botanical Garden has a recently built Visitors Center that welcomes guests from the new 120 car parking lot. The main loop trail guides visitors out from the Visitors Center into the collections.

The gardens host many events and programs for its 350,000 yearly visitors including the Garden D'lights, a large winter lights celebration running through the month of December.

Summary Points:

- Gardens Developed with Local Garden Society Organizations
- Strong Central Pathway
- Partnership with Local School Districts
- Strong Connection From Parking to Visitors Center

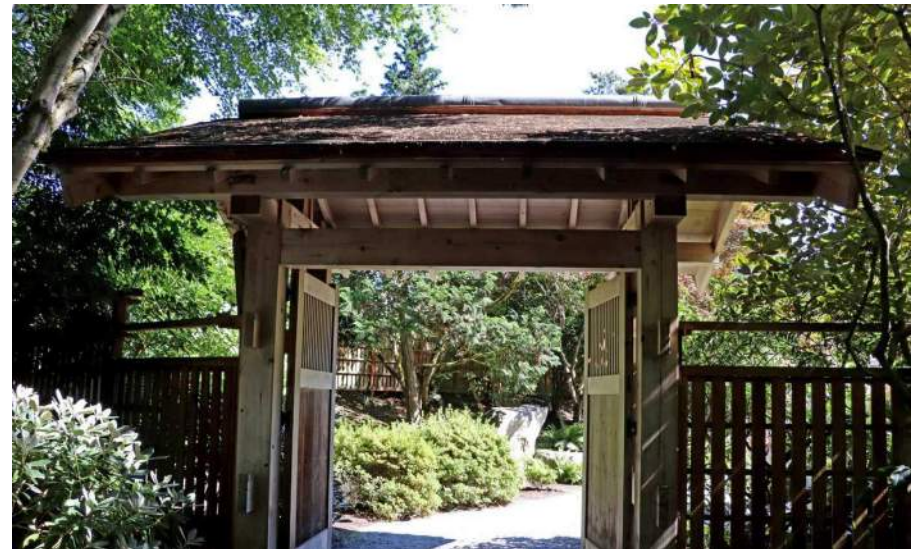
Bellevue Botanical Garden Gardens

The Bellevue Botanic Gardens collections are all accessed from the central circular pathway, the Tateuchi Loop Trail. This Garden is noted for its balance of curated collections and more wild and natural landscapes and trails. Some of the collections include:

- **Fuchsia Gardens:** Cultivated by the Eastside Fuchsia Society, this garden is located along the Tateuchi Loop Trail. There are about 100 different varieties showcased.
- **Lost Meadow Trail:** This loop trail moves through woodlands, meadows and wetland landscapes. Sculptures placed throughout the trail adds interest.
- **Rock and Iris Rain Garden:** This garden is maintained by the North American Rock Garden Society. Surface water moves through the rock garden into the Iris Garden before it flows back into local water bodies.
- **Waterwise Garden:** Sponsored by Bellevue Utilities, this garden displays options for the home gardener who is interested in reducing his/her utility bills and the amount of water used in the garden.
- **Yao Garden:** This Japanese garden was designed to honor the sister city relationship between Bellevue and Yao, Japan.



Lost Meadow Trail Sculpture



Yao Garden Entrance Gate

Bellevue Botanical Garden Buildings

The main buildings and program elements at the gardens are grouped together at the entrance, creating a central hub. Programmatic elements are shown in the aerial image and listed below.

- Visitors Center (10,000sqft)
 - Trillium Gift Shop
 - Aaron Education Center
 - Offices + Lecture rooms

Adjacent to the Visitors Center is the Copper Kettle Coffee Bar. Coffee, sandwiches and salads are available 10am-5pm daily.



Placed throughout the arboretum near significant plants or places of interest, plant identification signs incorporate a QR code allowing visitors to take a photo and learn about the species they are engaging with.

QR Signs



Bellevue Botanical Garden

Education / Classes

Classes are organized by the Bellevue Botanical Garden Society. Some of the upcoming courses include:

- Pruning an Overgrown Garden: \$25 fee.
- Ethnobotanical Sketchbook: \$45 fee.
- Introduction to Chinese Tea: \$20 fee.
- Basic Tree Pruning: \$25-\$35 fee.
- Watercolor: \$25 fee.

The garden offers a lecture series featuring prominent horticulturists and garden designers. Tickets for the lectures are \$5 for members, \$15 to the public

Tours of the garden are also available with guides from the docent program:

- Public tours every Saturday and Sunday at noon.
- Private tours scheduled two weeks in advance.

There are several education initiatives the garden leads and organizes with community partners.

- **Kids in the Garden:** Ages 3-5. Four week program that meets for 1.5hrs a week. Fee: \$100.
- **Living Lab School Program:** Grades K-5. This free educational program partners with local schools to provide two-hour field trips with different themes for each age level. Some themes include: Soils, Flowers, and Pollinators.
- **Scout Program:** Grades K-3. Provides Girl Scouts and Cub Scouts an opportunity to learn at different stations and earn badges.



Living Lab School Program



Pruning Course

Bellevue Botanical Garden

Events

All events at the gardens support the educational programs and other offerings of the space. They are designed to engage and inspire garden visitors. Some of the larger events at the Botanical Gardens include:

- **Vintage and Collectibles Event:** Held in June, this three day event has a huge variety of vintage items and collectibles for sale.
- **Arts in the Garden:** Held in August, this two day event is an opportunity for artists to display their work, which is also available for purchase. Artwork is placed within collections, flowerbeds, and woodlands of the botanical garden. In the evenings, live music and refreshments are offered.
- **Garden D' Lights:** Held every December, this is the garden's largest event. Tickets are available for \$5. A light show on display throughout the entire garden. The event has multiple sponsors. Refreshments available for purchase. A Gingerbread Village is on display inside the Visitors Center.
- **Mothers Day** Garden walk in May.
- **No wedding venue** (Though they do allow for wedding photography.)



Garden D'Lights



Art in the Garden

Red Butte Garden: Salt Lake City, Utah

Overview



Founded: 1961
Area: 18 Acres of Garden, 100 Acres Total
Entrance Fee: \$7 - \$24
USDA Hardiness Zone: 7A
[LINK TO WEBSITE](#)

The Red Butte Gardens are in the foothills on the edge of Salt Lake City, adjacent to University of Utah. The gardens and adjoining amphitheater attract 200,000 annual visitors. In addition 10,000 members and 300 active volunteers help prepare for the events, sales, and educational offerings at the gardens.

The facility has become a destination for people seeking recreation, exercise, family activities, and horticultural knowledge. It is a very popular venue for weddings, birthday parties and concerts.

Summary Points:

- Amphitheater and Concert Venue
- Children's Garden and Education Center
- Connection to Hiking Trails

Red Butte Garden Gardens

The numerous specialty collections at the gardens are all accessible from a central path. The maintained gardens only comprise about 20% of the total garden space, with the remainder being maintained as natural landscape with hiking trails and wildlife-watching opportunities.

- **Children's Garden:** Comprised of many different activity areas, the Children's Garden occupies kids who visit the arboretum with a maze, splash pad, waterfall, koi pond, and tree house.
- **Water Conservation Garden:** This three acre garden has been designed to inspire local homeowners and businesses. It hopes to end the myth that water wise gardens are only rocks and cacti.
- **Ornamental Grasses Collection:** Provides inspiration to homeowners, and demonstrates the variety of local grasses available.
- **Hiking Pathways:** The maintained trails connect to a wider network of hiking opportunities in the foothills of Salt Lake City.
- **Rose Garden:** With a grand entrance and large lawn, the Rose Garden is a popular wedding location.



Pathway inside Ornamental Grasses Collection



Two areas of the Children's Garden, to the left is the Splash Pad. On the right is the Snake Fountain, which provides a place of refuge during play.

Red Butte Garden Buildings

The Buildings at the Red Butte Garden are grouped in clusters across the property. Guests first approach the Visitors Center cluster from the parking area. Further into the gardens are the Amphitheater buildings, and the Children's Garden buildings.

- **Visitors Center:** Visitors must pass through this building to reach the gardens. Along the way they pass a gift shop and restrooms. A portico to help circulate pick up and drop-off traffic.
- **Rose House:** New Glass structure in the Rose Garden. Weddings and events for up to 80 can be hosted indoors. Smaller events can be held on the Rose House Terrace, which has a sun shade. Rates from \$1,500 to \$4,200.
- **Orangerie:** This is the largest event space at the Red Butte. Weddings and events for 150 can be held here. The space has large doors that open onto a terrace. Rates from \$1,500 to \$4,200.
- **Amphitheater:** For large events, performances, or company gatherings. A 3,000 person capacity. This space is used for the popular summer concert series and has its own entrance pavilion and restrooms.
- **Sprout House:** Adjacent to the Children's Garden, the Sprout House hosts the summer camps and other children's educational programs. A classroom space can be rented for children's birthday parties. Rates are for 1.5 hours and include use of the Children's Garden. \$240 for every 16 children.



Wedding in the Orangerie (Top) Orangerie Terrace (Above)



The Rose House

Red Butte Garden

Education / Classes

The children's courses and activities available at the Gardens are all held at the Sprout House.

- **Garden Adventure Class:** Every Saturday in July, children ages 4-12 can participate in different themed classes exploring the garden.
- **Summer Camps:** For nine weeks, different themed summer camps are offered to students from Kindergarten to 6th grade.
- **Little Bugs:** Summer classes for Pre-K students. Every Monday during the summer for two hours, different lessons introduce children to themes in nature.

There are classes and activities for adults throughout the year. Here is a sampling of activities for in the summer months:

- **Birding:** Offered in Summer + Fall months every Saturday morning
- **Yoga:** \$12 per class, Every Tuesday, Thursday and Saturday from June through August.
- **Cooking in the Garden:** \$44 per class; once a month, May through August.
- **Growing Your Own Herbs:** \$58 per class, classes are offered every Saturday in June.
- **Drawing Botany:** \$151 for a week-long series of classes in June.
- **Succulent Centerpieces:** \$71 per class one-time in June.

The garden provides guided tours daily from trained docents. Additionally, for visitors with mobility issues, or who prefer not to walk, Tram Tours are available. Private tours can be arranged for \$30 a person.



Annual Plant Sales



Story Time in the Sprout House

Red Butte Garden

Events

For many Salt Lake City area residents, the Red Butte garden is most strongly associated with its outdoor concert series which consistently sells out to crowds of 3,000+. The Garden hosts many other events and plant sales throughout the year.

- **Outdoor Concert Series:** These weekend events bring a large number of new visitors to the gardens. Members enjoy preference when buying tickets.
- **Outdoor Summer Film Series:** Held in the Amphitheater during July and August, twice weekly movies are screened free for members.
- **Annual Spring Plant Sale:** Held in May the largest plant sale for the garden lasts for three days. Garden staff are on hand to answer questions. 250 different varieties of veggies (80 tomatoes, 45 peppers, etc), ornamental grasses, perennials, roses, and shrubs are available for purchase.
- **Spring Poetry Contest Display:** To celebrate National Poetry Month in April, 11 poetry boxes featuring the winning poems of the contests are on display throughout the gardens.
- **Campout:** In June this event which is popular with families, the gardens are open to campers after hours. Join in family activities, crafts and games. A catered breakfast is provided in the morning. Tickets are \$32 per person for members, \$40 for non-members.
- **Block Party:** Free for members only, the Block Party has music and small bites and ends the summer season.
- **Fall Bulb and Native Plant Sale:** Smaller than the spring plant sale, this sale focuses on perennials, bulbs and waterwise plants.
- **Garden After Dark:** This end-of-October Halloween celebration features light displays and games. Costumes are encouraged at this kid friendly event.
- **Art Exhibits:** Year round, visiting artists exhibit work in the collections or at the Visitors Center.



Picnic Event at the Amphitheater



Campout Event

NOISE ASSESSMENT





Yakima Arboretum
Existing Noise Level Assessment

August 14, 2019

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Glossary

Decibel, Sound Pressure Level

The most commonly used measure of sound and which represents the magnitude of the sound pressure in the air. The sound pressure magnitude is closely related to the perception of “loudness” or “sound volume” as perceived by humans.

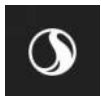
Because the decibel scale is logarithmic, the loudness of sounds does not vary arithmetically. The ear has some difficulty detecting the difference in loudness between sounds that have a difference of up to 3 dB (3 dB is considered the just noticeable difference in level). A difference of 5 dB, however, is easily perceptible, and a 10 dB difference is perceived as twice as loud.

Decibel, A-weighted

The human ear responds differently to sounds at different frequencies (pitch). This is demonstrated by the fact that we hear higher pitched sounds easier than lower ones of the same magnitude. To compensate for the different “loudness” as perceived by humans at different pitches, a standard weighting curve is applied to measured levels. This weighting curve represents the sensitivity of the human ear is labeled “A” weighting. The units of magnitude of the sound are recorded as dBA, or “A”-weighted decibels, which is a logarithmic scale.

Environmental Noise

Environmental noise typically refers to the total acoustic environment as measured or heard by humans. This acoustic environment is made up of background noise caused by distant traffic, airplanes, etc., and higher levels of noise dominated by nearby sources such as car pass-bys, airplane fly-overs, or close construction activity.



Equivalent Noise Level

The Leq noise descriptor is the Equivalent Noise Level, which is the dB level of a constant sound that has the same acoustical energy as the time-varying sound over the same period of time. The Leq is described by the Environmental Protection Agency as the "equivalent sound level is a single value of sound level for any desired duration, which includes all of the time-varying sound energy in the measurement period". A source that produces a constant sound level of 60 dB for a ten-minute duration, and then produces a constant sound level of 70 dB for ten minutes would produce an Leq of 67 dB (the logarithmic average of 60 and 70) for the entire 20-minute duration. Note that the level in the Leq calculation is closer to the higher sound level because the higher level has more energy.

Just Noticeable Difference

The amount an acoustical feature must be changed in order for a difference in condition to be noticeable or detectable to a listener at least 50% of the time.

Sound Volume

Closely related to sound pressure level, it is loudness as perceived by humans.



1.0 INTRODUCTION

The Yakima Arboretum is a 46 acres green space in Yakima, Washington located at the intersection of Interstate I-82 and Highway 24 (locally known as E Nob Hill Blvd).

Stantec performed a noise study of the Arboretum to determine how the noise from nearby roads impacts the site. The topographical information associated with the site was entered into the program SoundPLAN to predict noise levels throughout the arboretum. The model was calibrated using 8 noise measurements taken at the site on 5/31/2019 (these 8 locations are also used as Receiver Points in the SoundPLAN model analysis). Using the SoundPLAN model, acoustic barriers were hypothetically inserted next to the freeway to ascertain if they would be of some value.

2.0 ARBORETUM LOCATION

Figure 1 below is the layout of the Yakima Arboretum and its position next to I-82 and Highway 24.

Figure 1. Yakima Arboretum's layout in relation to I-82 and Hwy 24



Site Map from Yakima Arboretum's website

Google Maps



3.0 MEASURED SOUND LEVELS

The measurements taken in the Yakima Arboretum were collected with a Larson Davis Type 1 LxT sound level meter.

Noise levels were measured at 8 locations within Yakima Arboretum on May 31, 2019. **Figure 2** shows both the location of these measurements and the overall dBA noise level captured at each location.

Figure 2. Measurement Locations



4.0 PREDICTED SOUND LEVELS

The noise measurements captured on May 31, 2019 were used in combination with the typical traffic noise levels pre-programmed into SoundPLAN to map the existing noise levels at the Yakima Arboretum. SoundPLAN is an environmental noise prediction program. Elevations for the site were taken from GoogleEarth. It was assumed that the traffic was the only source of noise impacting the Arboretum. Traffic volumes were unknown during the noise level measurements. They were adjusted to create a best-fit prediction model to match the measured noise levels.

Table 1. Measured and SoundPLAN Noise Levels at 8 Receiver Locations

	5/31/2019 Measured Levels	As-Is SoundPLAN Model
Position 1	66	67.4
Position 2	61	59.2
Position 3	65	66.1
Position 4	NA*	58.7
Position 5	64	66.2
Position 6	57	55.5
Position 7	56	54.8
Position 8	53	52.2
CRITERIA	65	65

* Measurement taken at Position 4 was uncharacteristically high due to non-traffic noise sources. Therefore, this outlier was not included in our data set.

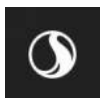
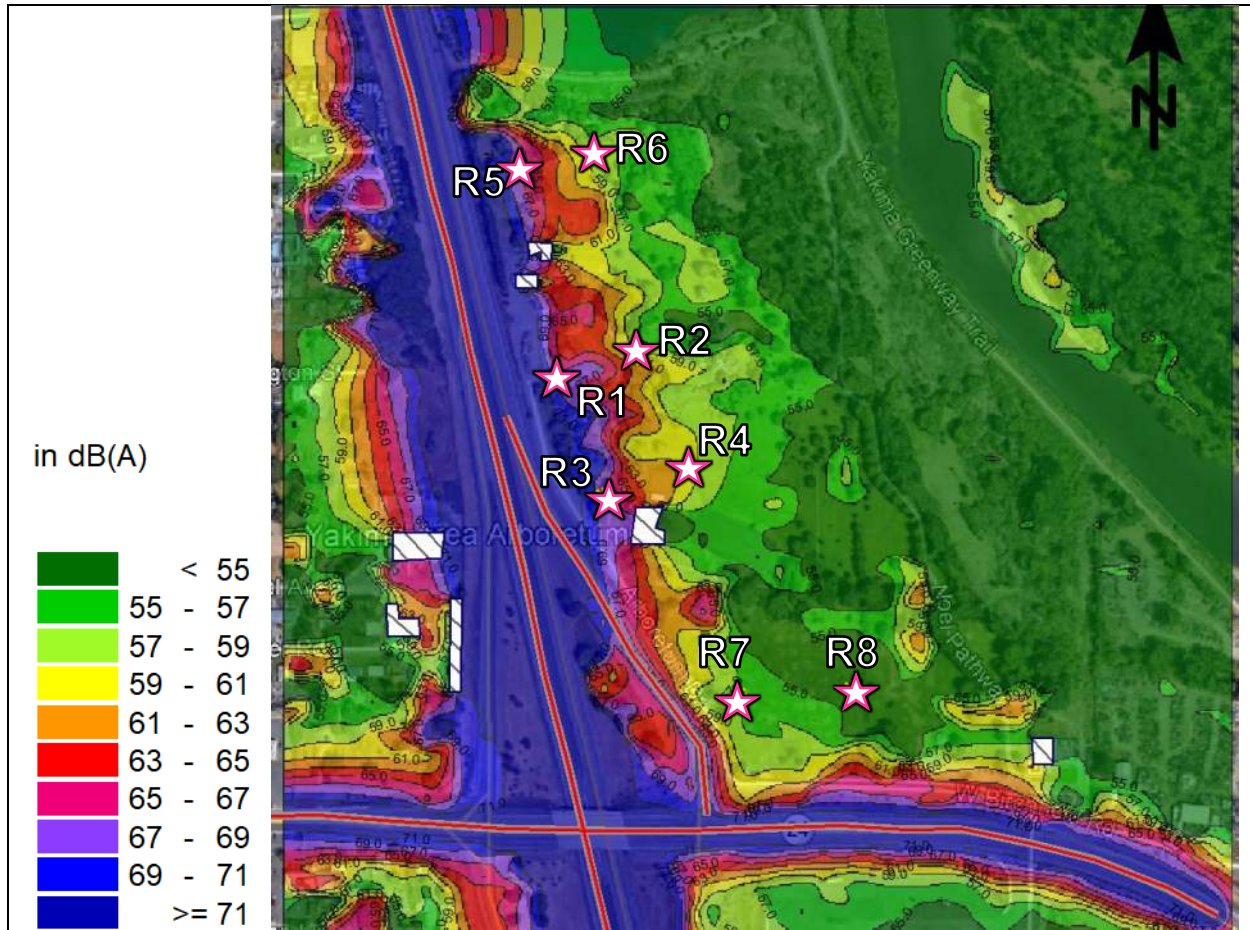


Figure 3. Noise Color Contours of SoundPLAN Noise Prediction Model – Existing Conditions



5.0 CRITERIA

The Yakima Arboretum does not fall under any noise ordinances in either the Yakima municipal code or Washington state code.

In-place of a legally-required noise level within the arboretum, we suggest adopting the noise criteria established by the Federal Transit Administration. Criteria presented by the FTA is specific to highway noise and is consistent with other federal agencies such as the Department of Housing and Urban Development (HUD) and the Federal Aviation Administration (FAA).



5.1 FEDERAL TRANSIT ADMINISTRATION

The Federal Transit Administration published a document in September 2018 titled *Transit Noise and Vibration Impact Assessment Manual* (FTA Report No. 0123). In this report, recommended noise criteria are listed in Section 4.1 of that document, “Determine Noise Impact Criteria”:

Figure 4. Federal Transit Administration Land Type Definitions

Land Use Category	Land Use Type	Noise Metric, dBA	Description of Land Use Category
1	High Sensitivity	Outdoor $L_{eq(1hr)}$ *	Land where quiet is an essential element of its intended purpose. Example land uses include preserved land for serenity and quiet, outdoor amphitheaters and concert pavilions, and national historic landmarks with considerable outdoor use. Recording studios and concert halls are also included in this category.
2	Residential	Outdoor L_{dn}	This category is applicable all residential land use and buildings where people normally sleep, such as hotels and hospitals.
3	Institutional	Outdoor $L_{eq(1hr)}$ *	This category is applicable to institutional land uses with primarily daytime and evening use. Example land uses include schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material. Places for meditation or study associated with cemeteries, monuments, museums, campgrounds, and recreational facilities are also included in this category.

* $L_{eq(1hr)}$ for the loudest hour of project-related activity during hours of noise sensitivity.

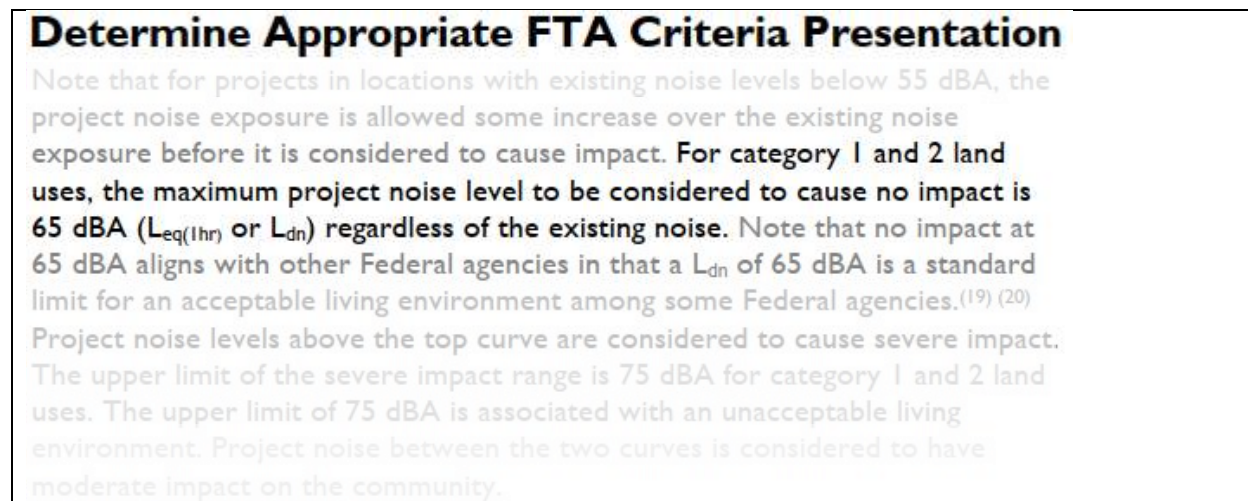
Based on the descriptions of land types in the paper, the Yakima Arboretum falls either under Category 1 or Category 3. Category 1 is designated “land for serenity and quiet”. The FTA recommends that the maximum noise from traffic on a Category 1 space is 65dBA (see **Figure 5** below).

The onsite noise measurements collected May 31, 2019 were all within 1dBA of this recommended criteria (with the exception of the one outlying position which was unrepresentative of traffic-induced noise levels on the grounds). The SoundPLAN prediction model of the Arboretum indicates that the grounds within 250ft of Highway I-82 exceed the 65dBA recommended criteria, while the rest of the Arboretum meets the criteria. It appears that the section of Arboretum exceeding the 65dBA criteria is predominantly used for parking and buildings.

Category 3 is consistent with the consideration that the arboretum is a park. Category 3 has even less restrictive noise requirements than Category 1, meaning that the noise criteria is higher than 65 dBA.



Figure 5. Federal Transit Administration Category 1 Land Type Criteria



6.0 EFFECT OF NOISE BARRIERS

Although the measured noise levels for most of the area of the Arboretum fall within the FTA criteria, the effect of acoustic barriers placed alongside I-82 was explored.

6.1 LOCATION OF NOISE BARRIER

A hypothetical noise barrier of various heights was added to the SoundPLAN model. The barrier was located on the east side of I-82, as shown in **Figure 6**. In our SoundPLAN model, we modeled the base of the barrier to be the same elevation of the I-82 road (this includes the section of the barrier that runs alongside the I-82-northbound onramp – this section of barrier remains at the same elevation of the main I-82 and does not follow the rising onramp elevation). The ramp itself forms a natural acoustic barrier for traffic traveling on I-82 near the on-ramp.



Figure 6. Location of Possible Noise Barrier



6.2 PREDICTED NOISE LEVELS IN ARBORETUM WITH NOISE BARRIER(S)

Noise prediction models were run in SoundPLAN with 4 different height noise barriers – 8ft, 10ft, 12ft, and 16ft. The predicted noise levels at the 8 measurement locations are listed in **Table 2**. The color contour maps for each of these simulations are shown in **Figures 7 through 10**.



Table 2. Predicated Receiver Noise Levels (dBA)

	5/31/2019 Measured Levels	As-Is SoundPLAN Model	Noise Barrier			
			8ft	10ft	12ft	16ft
Position 1	66	67.4	65.2	64.0	62.6	59.6
Position 2	61	59.2	58.2	58.0	57.1	54.9
Position 3	65	66.1	64.6	63.5	62.1	59.7
Position 4	NA*	58.7	58.4	58.4	57.0	54.9
Position 5	64	66.2	60.2	59.3	58.2	54.8
Position 6	57	55.5	53.4	52.9	52.4	50.9
Position 7	56	54.8	55.1	54.3	54.3	54.2
Position 8	53	52.2	52.3	52.1	52.0	51.9
CRITERIA	65	65	65	65	65	65

* Measurement taken at Position 4 was uncharacteristically high due to non-traffic noise sources. Therefore, this outlier was not included in our data set.

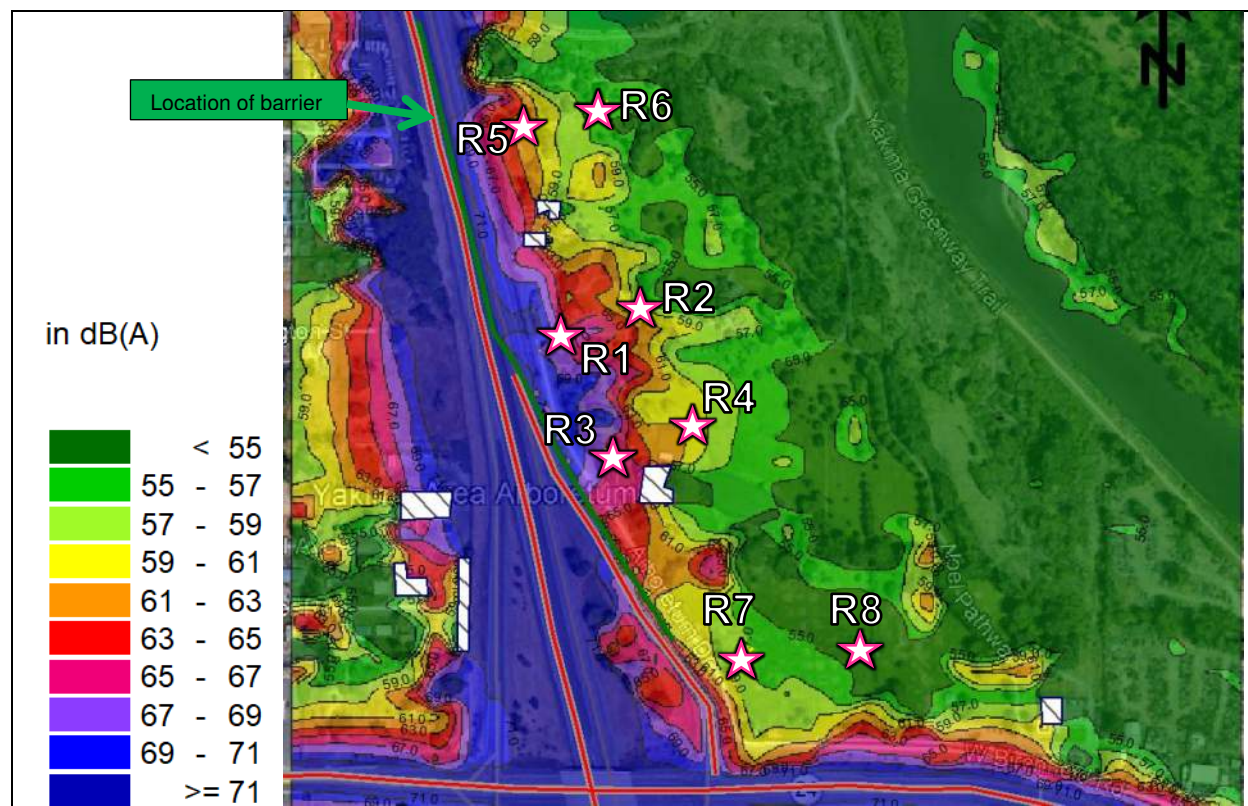
Figure 7. Noise Color Contours of 8ft Tall Barrier Model

Figure 8. Noise Color Contours of 10ft Tall Barrier Model

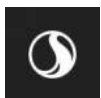
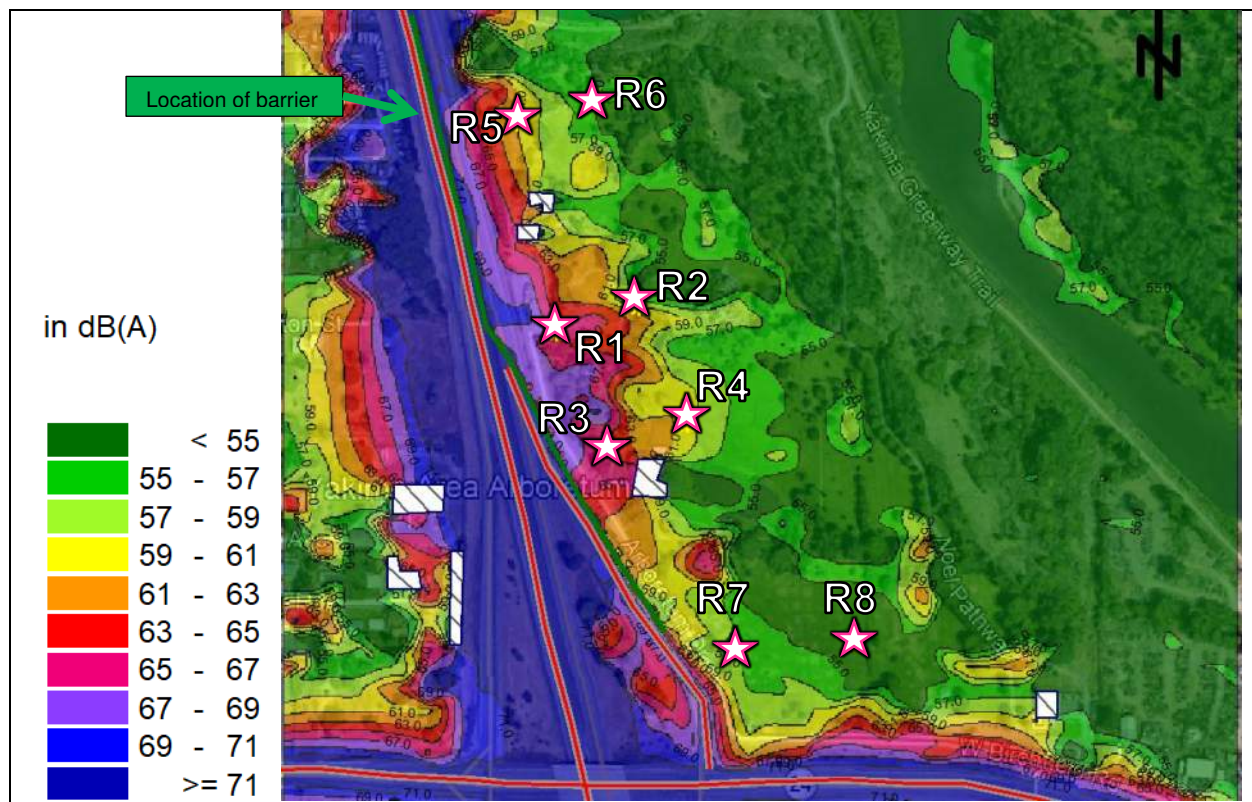


Figure 9. Noise Color Contours of 12ft Tall Barrier Model

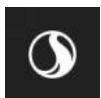
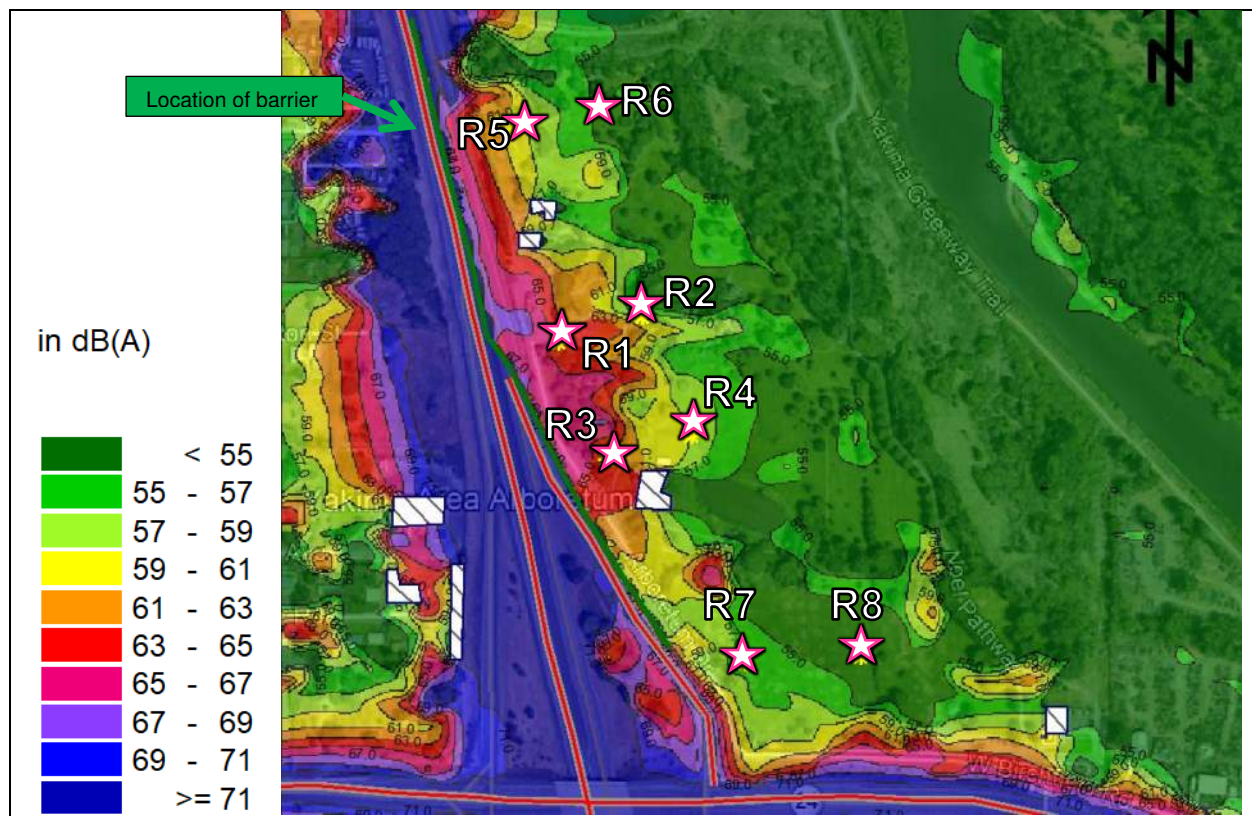
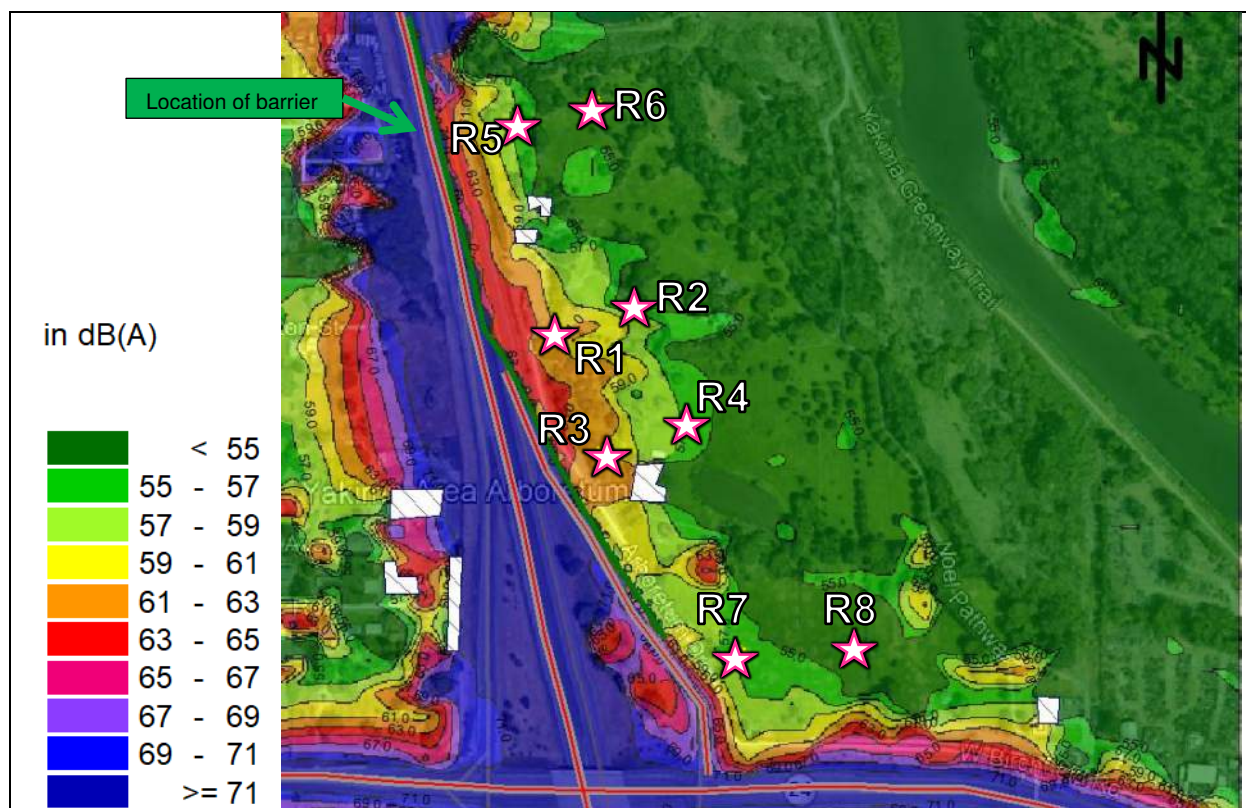


Figure 10. Noise Color Contours of 16ft Tall Barrier Model



The SoundPLAN models show that the presence of a noise barrier has little impact on the amount of traffic noise on the farther receive locations R2, R4, R6, and R8. Even those receiver locations close to the barrier see less than a 3dB reduction in noise until the barrier height reaches 16 feet, which is likely an unrealistic height. Although a 10 foot barrier would reduce all measurement locations to less than 65dBA, a 3dB reduction in noise level would not be significant and may go unnoticed. The expense of a barrier would not be warranted.

