

NEPA Environmental Assessment

RCO Conversion at Chesterley Park

A partial conversion of land protected under Section 6(f)(3) of the Land and Water Conservation Fund Act, Public Law 108-198



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The Land and Water Conservation Fund (LWCF), Stateside Assistance grant program, provides funds to states, and through states to local agencies, for the acquisition and development of outdoor recreation resources. Lands that have received funding through LWCF are protected by section 6(f)(3) of the Act unless a conversion is approved by the Secretary of the Interior as delegated to the National Park Service.

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Acronyms and Abbreviations

AARP	American Association of Retired People
BFE	Base Flood Elevation
BMP	Best Management Practice
CFR	Code of Federal Regulations
dB	Decibel
DAHP	Department of Archaeology and Historic Preservation
DDD	Dichlorodiphenyldichloroethane
DDE	Dichlorodiphenyldichloroethylene
DDT	Dichlorodiphenyltrichloroethane
DNR	Washington State Department of Natural Resources
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EFH	Essential Fish Habitat
EJSCREEN	Environmental Justice Screening and Mapping Tool
ESA	Endangered Species Act
ESF	Environmental Screening Form
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
FR	Federal Registrar
IPaC	Information for Planning and Conservation
LWCF	Land and Water Conservation Fund
MPH	Miles Per Hour
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPS	National Parks Service
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
PCB	Polychlorinated Biphenyl
PHS	Priority Habitats and Species
PM ₁₀	Particulate Matter 10 microns or less
RCO	Recreation and Conservation Office
RCW	Revised Code of Washington
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WISAARD	Washington Information System for Architectural & Archaeological Records Data
WWRP	Washington Wildlife and Recreation Program
YMC	Yakima Municipal Code

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1. SUMMARY

The City of Yakima proposes to transfer contractual obligations under section six of the Land and Water Conservation Fund Act from 5.59 acres at Chesterley Park to a new 31.2-acre park (hereafter referred to as the Replacement Park). The conversion will allow for construction of a combined YMCA and City of Yakima aquatic center. There will remain at Chesterley Park 26.4 acres subject to LWCF requirements. Chesterley Park is located near the northern boundary of the City of Yakima (Figure 1). The Replacement Park is located near the southern boundary of the City of Yakima (Figure 1).

This conversion is necessary because although the new aquatic center will provide a superior diversity of recreational opportunity and offer aquatic recreation including swimming to an underserved community, the fee and membership structure is inconsistent with LWCF requirements. In addition to the proposed action, three alternatives and a 'no action' alternative are considered in this assessment.

This environmental assessment (EA) is required to help NPS evaluate the environmental consequences of the proposed action on the human environment and allow the potentially affected public to understand the context for the proposed action. The EA assesses the suitability of the potential replacement property for replacing the fair market value and the recreation utility equivalency of the 5.59-acre conversion area at Chesterley Park. The EA identifies existing environmental resources on or adjacent to the proposed replacement property and any potential beneficial and/or adverse impacts that may result from the acquisition of the proposed replacement property and the initial development proposed to satisfy the conversion.

Based upon the effects of the alternatives, the City of Yakima is requesting that Washington State Recreation and Conservation Office (RCO) forward a recommendation to the National Park Service (NPS) to approve the proposed conversion and replacement.

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2. INTRODUCTION

In 1975, the City of Yakima received a Land and Water Conservation Fund (LWCF) grant for the acquisition of approximately 32 acres of land for an outdoor recreational complex at Chesterley Park, thereby protecting it for public outdoor recreation under section 6(f)(3) of the LWCF Act (Project #75-030/52-00322). It was completed in 1976 and includes soccer fields, play equipment, a skate park, a picnic shelter, tables and grills, restrooms, and parking facilities. The park project also received funding from the Washington Wildlife and Recreation Program (WWRP), Local Parks Category Grant for the construction of outdoor recreation amenities and facilities.

Section 6(f)(3) requires that protected parkland that is converted to a use other than outdoor recreation be replaced with property that is of at least equal fair market value and equivalent recreation utility as the property that was converted. The replacement property must constitute a viable recreation unit, or be acquired as an addition to an existing recreation unit. Development of the replacement property will be completed to ensure that a level of recreation utility is achieved similar to what was lost at the converted site.

The geographic location of the existing park and proposed conversion property can be seen in Figure 1. The currently protected portion of Chesterley Park is depicted in Figure 2, which also shows the outline of the proposed conversion. Figure 3 depicts the boundary of the Chesterley Park that will remain protected by 6(f)(3) if the conversion is approved. The proposed Replacement Park area can be viewed in Figure 4.

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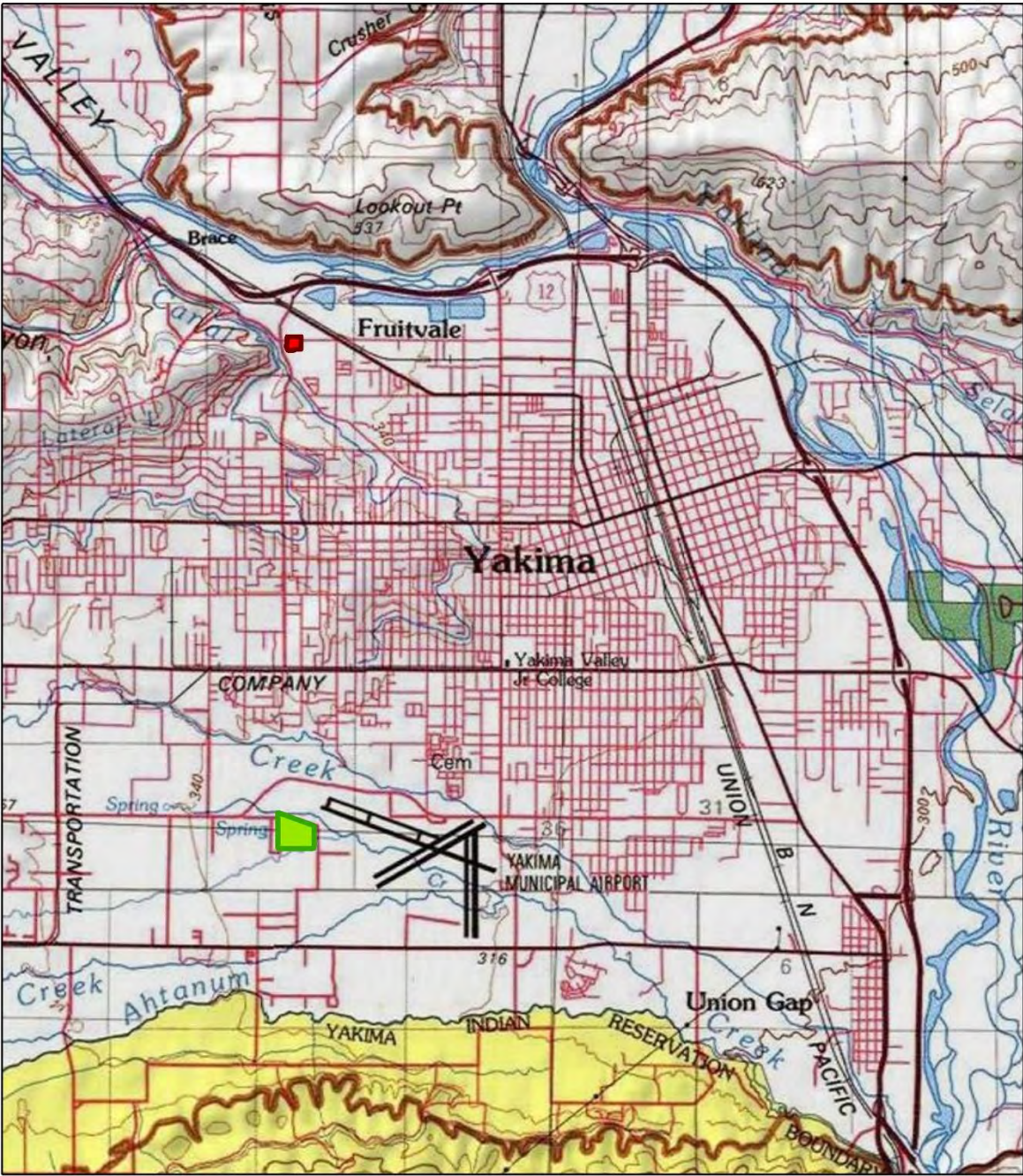


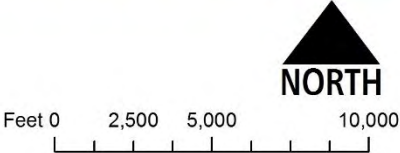


Figure 1. Vicinity Map



-  Chesterley Park Conversion Area
-  Replacement Park Area



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Figure 2. Chesterley Park Conversion Area

-  Conversion Area - Future Aquatic Center and Parking
-  Approximate 6(f) Protected Park Boundary

Feet 0 125 250 500



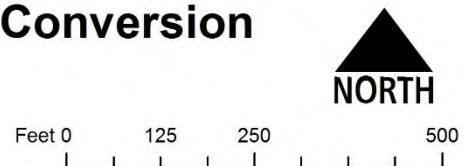
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Figure 2. Chesterley Park Post-Conversion

 Post Conversion 6(f) Boundary



Disclaimer: Conversion areas and park boundary layers are a close approximation but may differ slightly from the legal site boundary.

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Figure 4. Replacement Park Boundary

 Park Boundary

Feet 0 120 240 480



Disclaimer: Park Boundary is a close approximation but may differ slightly from the legal site boundary.

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3. PURPOSE, NEED, AND BACKGROUND

The purpose of this project is to transfer LWCF contractual obligations from 5.59 acres of Chesterley Park to allow for the addition of an aquatic center, attached YMCA, and additional parking. The aquatic center will be funded in partnership with YMCA and the City of Yakima who will divide the costs to construct and operate the facility. This action is needed to add aquatic recreation and diversify recreational activities in an underserved area. The City of Yakima currently has only one indoor public pool that is aging and in need of replacement. Surveys conducted as a part of the City of Yakima 2012-2017 Parks and Recreation Comprehensive Plan identify swimming pools and water features as the second most wanted future park amenity (City of Yakima, 2012).

The City of Yakima proposes to replace the partial conversion at Chesterley Park with the construction of a new 31.2-acre park. Development at the Replacement Park will include open fields, walking paths, natural areas, picnic areas, playgrounds, restrooms, and parking facilities. Construction of the Replacement Park is expected to begin in 2019. It is anticipated that the park will be completed and open to the public by 2020. Figure 4 depicts the Replacement Park boundary in yellow and Figure 5 shows the conceptual site development plan.

The LWCF program is administered by the Washington State Recreation and Conservation Office (RCO) on behalf of the National Parks Service (NPS). This Environmental Assessment has been prepared for the use of the National Park Service in order to determine whether a finding of no significant impact (FONSI) will be prepared under the National Environmental Policy Act (NEPA) or if greater environmental review is needed in the form of an environmental impact statement (EIS). This document evaluates the environmental consequences of the proposed action and presents the affected public with the context for the proposed action. The City also intends to use this evaluation to make a determination under the State Environmental Policy Act (SEPA).

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4. DESCRIPTION OF ALTERNATIVES

4.1 No Action

Under the No Action alternative, no conversion of 6(f)(3) protected properties would take place. Since Chesterley Park is currently a 6(f)(3) protected property, either the proposed aquatic center could not be developed in the park area or the City of Yakima would be in violation of federal and state contract requirements. In this scenario, Chesterley Park would remain unaltered and the Replacement Park would not be constructed.

All soccer fields, open space, and parking would remain available to the public. The property at the site of the proposed Replacement Park would remain undeveloped and continue to exist as natural area. The No Action Alternative does not provide for an increase in recreational diversity or opportunity. This scenario would result in less park area compared to the proposed alternative and no additional parks will be built. Existing conditions of Chesterley Park can be seen in Figure 2.

4.2 Proposed Alternative

4.2.1 Chesterley Park Conversion Area

The proposed action is to transfer federal 6(f)(3) contractual obligations from 5.59 out of 32 acres in Chesterley Park that will be replaced with a new 6(f)(3) protected 31.2-acre replacement park. The Chesterley Park conversion area can be viewed in Figure 2 and the Replacement Park area can be viewed in Figure 4. The post-conversion planned use for the property is the development of an aquatic center, attached YMCA, and additional parking facilities. It is anticipated that construction will begin in 2018. A map of the post-conversion 6(f)(3) protected park boundary can be seen in Figure 3.

Chesterley Park is a multiuse community park in northwest Yakima that features six soccer fields, a skate park, play equipment, picnic areas, tables and grills, restrooms, and parking facilities. Once converted, 26.4 acres of 6(f)(3) protected park will remain. Park resources within the 5.59 acre-conversion area include two soccer fields and open lawn area. All other park resources will be unaffected by the conversion and will remain recreationally viable. The conversion area was appraised at \$730,500.

Chesterley Park is used primarily by soccer players, skateboarders, and casual park visitors. The soccer fields are utilized by the school district, various leagues, and tournaments.

throughout the year. Located just south of U.S. Route 12, it is easily accessible to most of the city and provides soccer opportunity for much of the City of Yakima. Water and sewer lines run through Chesterley Park including portions of the conversion area.

The Aquatic Advisory Committee was formed in 2014 to help determine the aquatic center location and involve the public to prioritize community needs. The committee was made up of members with a variety of aquatic backgrounds including seniors, fitness swimmers, swim coaches, and aquatic professionals. The committee participated in identifying the preferred alternative and deciding what facilities would most benefit the City.

4.2.2 Replacement Park Area

The Replacement Park currently exists as an undeveloped field along the southern City of Yakima boundary between the Yakima Air Terminal and the SOZO Sports Complex. It will serve the community by providing 31.2 acres of outdoor recreational parkland that will be owned by the City of Yakima and leased to SOZO for development and operation as a public park. The Replacement Park will feature open space, picnic areas, walking paths, natural areas, playgrounds, restrooms, and parking facilities. See Figure 5 for a conceptual design. The project will be compliant with the 2010 Yakima County Regional Stormwater Manual and be designed and developed to minimize water quality impacts. The property has had little historic development other than a few past structures and farming activity in the southeast corner that no longer exist. Estimated completion of the park will be in 2020. The land is currently privately owned and has been assessed at a value of \$1,000,000. An advantage to the proposed alternative is the ability to leverage funds from SOZO. SOZO will be entering a 40-year lease and will be financing park development and maintenance during this period. The lease will have an option for two 10-year extensions.

Wetlands are featured prominently on the site, occupying 2.28 acres that will be mostly preserved in a natural setting. Just north of the site, Spring Creek flows through a channelized ditch that enters and exits through culverts crossing Spring Creek Rd. This creek provides much of the water that supports the northernmost wetland hydrology. A dry channelized landform mapped as Federal Emergency Management Agency (FEMA) floodway runs through the southern portion of the property and contains a few small wetlands. Spring Creek is also mapped as floodway. The remaining area exists as open fields featuring predominantly invasive species.

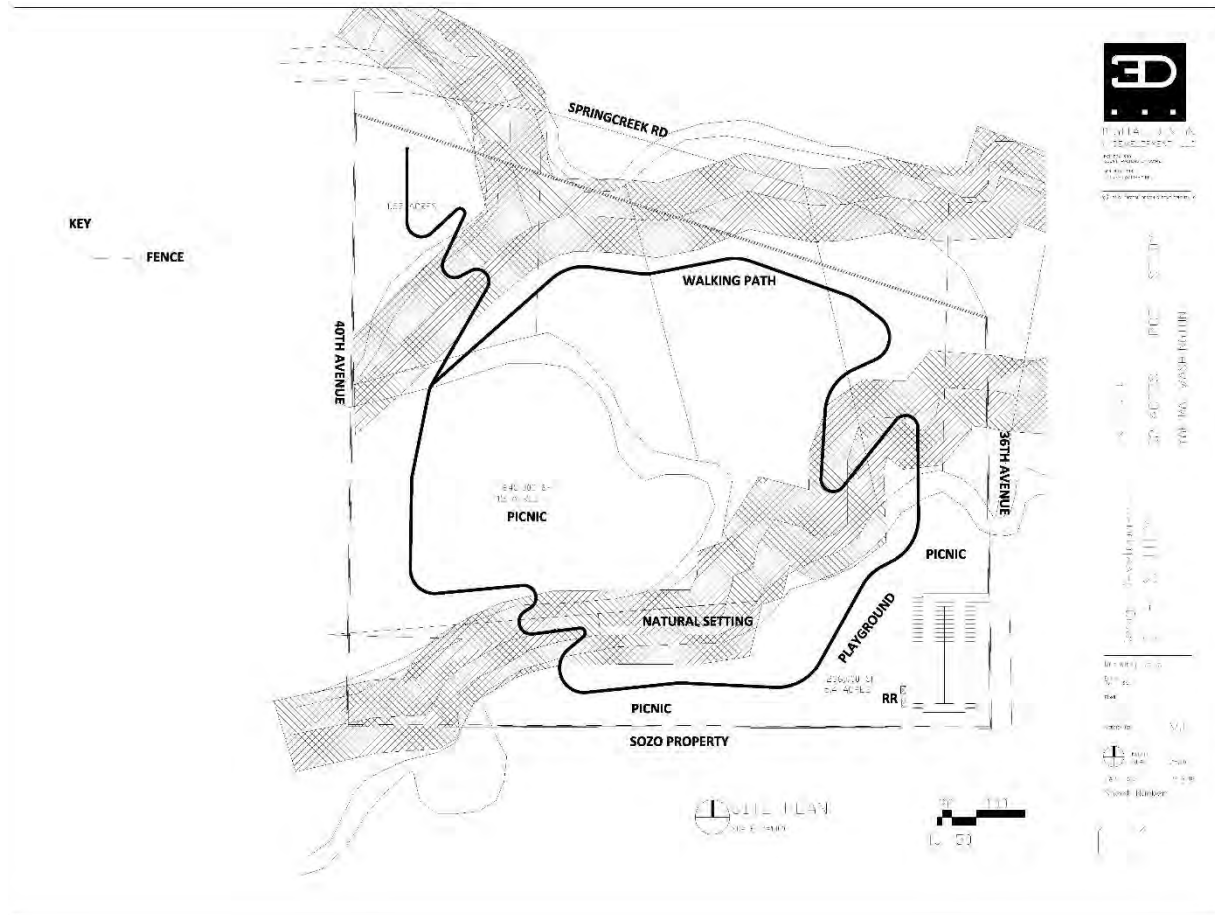


Figure 5. Replacement Park Conceptual Development Plan

No known or suspected contamination is located within the park area (Ecology 2016a). There are no known property restrictions, institutional controls, easements, right-of-way, or utilities within the Replacement Park area.

The replacement site will provide more park area and superior recreational resources than the conversion area in Chesterley Park. The Replacement Park compensates for the loss of soccer fields with alternate recreational opportunities that provide equal or greater recreational utility. The resources provided will allow for active and passive activities including but not limited to picnicking, walking, jogging, running, lounging, pet walking, nature viewing, and outdoor play including non-competitive sports such as Frisbee or pick up soccer, etc.

The conversion will result in a net gain of 25.6 acres of 6(f)(3) protected land, a 5.6:1 conversion ratio of replaced to lost land. The Replacement Park will be located on the opposite side of the City from Chesterley Park and would therefore serve a different population and demographic. The surrounding community near the Replacement Park is underserved for park space and would benefit from a new park.

The proposed park is consistent with the needs and opportunities of the City as identified in the Parks and Recreation Comprehensive Plan which lists surveyed preferences for neighborhood parks, open spaces, playgrounds, spray parks, and greenways/pathways (City of Yakima 2012). It also meets the mission of Yakima Parks and Recreation by promoting community leisure and recreational activities. The Replacement Park would be consistent with the State Comprehensive Outdoor Recreation Plan (SCORP) by providing activities with a high rate of participation including picnicking, barbequing, walking, wildlife viewing, playground use, jogging, and running (RCO 2013). These include three of the top five activities with the greatest participation rates in Washington State.

Public involvement for planning of the aquatic center and Replacement Park was promoted through several Parks Commission meetings, City Council meetings, and study sessions. Public comment was considered throughout the project to address concerns or comments from the community. The City of Yakima will solicit public comment for this EA by publishing the document online and providing print copies that will be made available at certain locations. The public comment period will be open for a minimum of 30 days and be advertised in a local newspaper and sponsor website. Recreation Conservation Funding Board (RCFB) conversion requirements are assessed in this EA and will be considered during this public comment period.

4.3 Other Alternatives

36 CFR § 59 requires that all practical alternatives to the conversion have been considered. The City of Yakima has considered a variety of alternatives for the aquatic center and replacement park location and amenities. Alternatives for the aquatic center location were considered on private and public properties, including six options formally presented to the Aquatic Advisory Committee. Of the alternatives originally considered, only the top alternatives are included in this section. Alternatives for the replacement park were also considered at various locations and containing various amenities. Properties of sufficient size for the replacement park were not available in the neighborhood of Chesterley Park which is why alternatives listed do not include direct replacement of the soccer fields in the neighborhood.

4.3.1 Alternative 1

Alternative 1 would place the aquatic center on private property within the City of Yakima. Most of the privately owned undeveloped land is located in the southwest region where agricultural lands persist. Two privately owned sites were identified by the City of Yakima and the Aquatic Advisory Committee as being among the top three alternatives for all site

locations. These include a 20-acre farmland parcel just west of S 53th Ave & Nob Hill Road and a 10-acre vacant lot at S 44th Ave & Nob Hill Road. Both are southwest of the City of Yakima geographic population center.

The advantages of these locations are that they are along a major arterial, near residential housing, relatively centrally located, near retail, would require no 6(f)(3) conversion, and are of sufficient size to build the aquatic center. The disadvantages of these locations are that they are located far from highway access, may add to traffic congestion, and would require acquisition of private property. The 10-acre property was assessed at \$2,048,100 and the 20-acre property was assessed at \$2,500,000.

The lack of highway access and large acquisition cost of private property were the basis for rejection of this alternative.

4.3.2 Alternative 2

Alternative 2 places the aquatic center in Lions Park on City of Yakima owned, but non-6(f)(3) protected lands. Lions Park is the current site of the only City of Yakima-owned indoor public pool. No land acquisition cost would be associated with the project as it is already City-owned.

The advantages of this site are a central location, the proximity to the downtown area, it is already City owned, and no 6(f)(3) conversion would be required. The disadvantages of this location are a small size and the project would require the removal of existing recreational resources. This alternative would not construct the needed quantity of pools or lanes to meet the needs of the City. No other practical publicly-owned undeveloped land was identified of sufficient size and location to build the aquatic center. Although it wouldn't require 6(f)(3) review, placing the aquatic center on non-6(f)(3) protected parkland would still impact recreational resources.

The small site size was the basis for rejection of this alternative since it would not provide enough pool area to meet the goals of the project. No non-6(f) publicly-owned lands meeting the required criteria for the aquatic center were identified in the City of Yakima.

4.3.3 Alternative 3

Alternative 3 includes incorporating the Replacement Park into a parcel of the SOZO complex for multisport activities such as golf, baseball, and football.

The advantages to this alternative is a wide diversity of recreational activities and the potential for partnership with SOZO to develop the site. The disadvantages of this alternative are a non-central location and an inability to maintaining public availability in the park area.

This alternative was rejected based on the inability to guarantee public access to the park area.

5. AFFECTED ENVIRONMENT

This chapter covers the existing conditions of natural and recreational resources at each park site. Using the NPS Environmental Screening Form (Appendix A and B), Widener & Associates assessed Chesterley Park and the Replacement Park to determine the resources on site likely to be negatively impacted and describe them as they currently exist. Impacts to these resources will be described in the next section.

5.1 Land Use

Land use refers to the current use and planned use of property to achieve or maintain goals as determined by governing authorities. Local governments plan for land uses according to the community's long-range vision and goals.

Land use in the study area is regulated through regional and local land use and transportation plans, including the Washington State Growth Management Act (RCW 36.70A). Local plans are implemented through municipal or county regulations. The project's consistency with regional and City of Yakima parks and recreational comprehensive plans was determined by assessing whether these changes support the planned growth and meet the needs of the community.

This section focuses on key land use issues including: ownership patterns, property values, community livability, circulation and transportation, recreation resources, energy resources, agency or tribal land use plans, overall aesthetics, special characteristics, and accessibility for populations with disabilities.

Community livability is a subjective measure that depends on the perspective and preferences of an individual. Organizations have attempted to quantify livability including the American Association of Retired Persons (AARP). The AARP Livability Index ranks locations based on categories including housing, neighborhoods, transportation, environment, health, civic and social engagement, and opportunity. Scores for all categories are out of 100 points and have a 50-point mean. Data was obtained from the AARP livability index to characterize the area around Chesterley Park and the Replacement Park (AARP 2016).

The population of the City of Yakima has been increasing rapidly, rising from 54,827 in 1990 to 91,067 in 2010 (Census 2012). Growing populations add to the need for recreational land within the region.

5.1.1 Chesterley Park Conversion Area

5.1.1.1 Land Use and Zoning

Chesterley Park is located on parcels currently zoned R-2 Two Family Residential District (Figure 7). The site had been historically used for agriculture and was once divided by the Powerhouse Canal which provided irrigation to the northern Yakima area. Historic aerial photographs depict that by 1949, City of Yakima residential properties were expanding to the eastern boundary of Chesterley Park and all land west was agricultural (Figure 6). The City has developed rapidly since this time, with residential properties now extending west for an additional four miles, particularly in the West Valley. The park is now surrounded by a combination of commercial and residential development. Agricultural land persists to the northwest up the Cowiche Creek and Naches River. The Powerhouse Canal has been removed and converted to the Powerhouse Canal Pathway which connects Chesterley Park to McGuinness Park for non-motorized uses.



Figure 6. City of Yakima 1949 Aerial Photo with approximate Chesterley Park Boundary (CWU 1949a).

Water lines and sanitary sewer utilities extend underneath Chesterley Park. Water lines run through the former alignment of the Powerhouse Canal and through a section in the northeast corner of the park area. Sewer lines run through the north park area parallel to River Rd. The conversion area contains a stretch of both water and sanitary sewer utilities.

The AARP Livability Index ranks the Chesterley Park area with a total score of 49, marginally below average. The location scored above average for the following categories: housing (63), environment (58), and civic/social engagement (54). 15% of income is spent on housing at this location, lower than the 18.4% national average. There are multiple types of housing available including multi-family, single family, and subsidized. The area scored below average for the

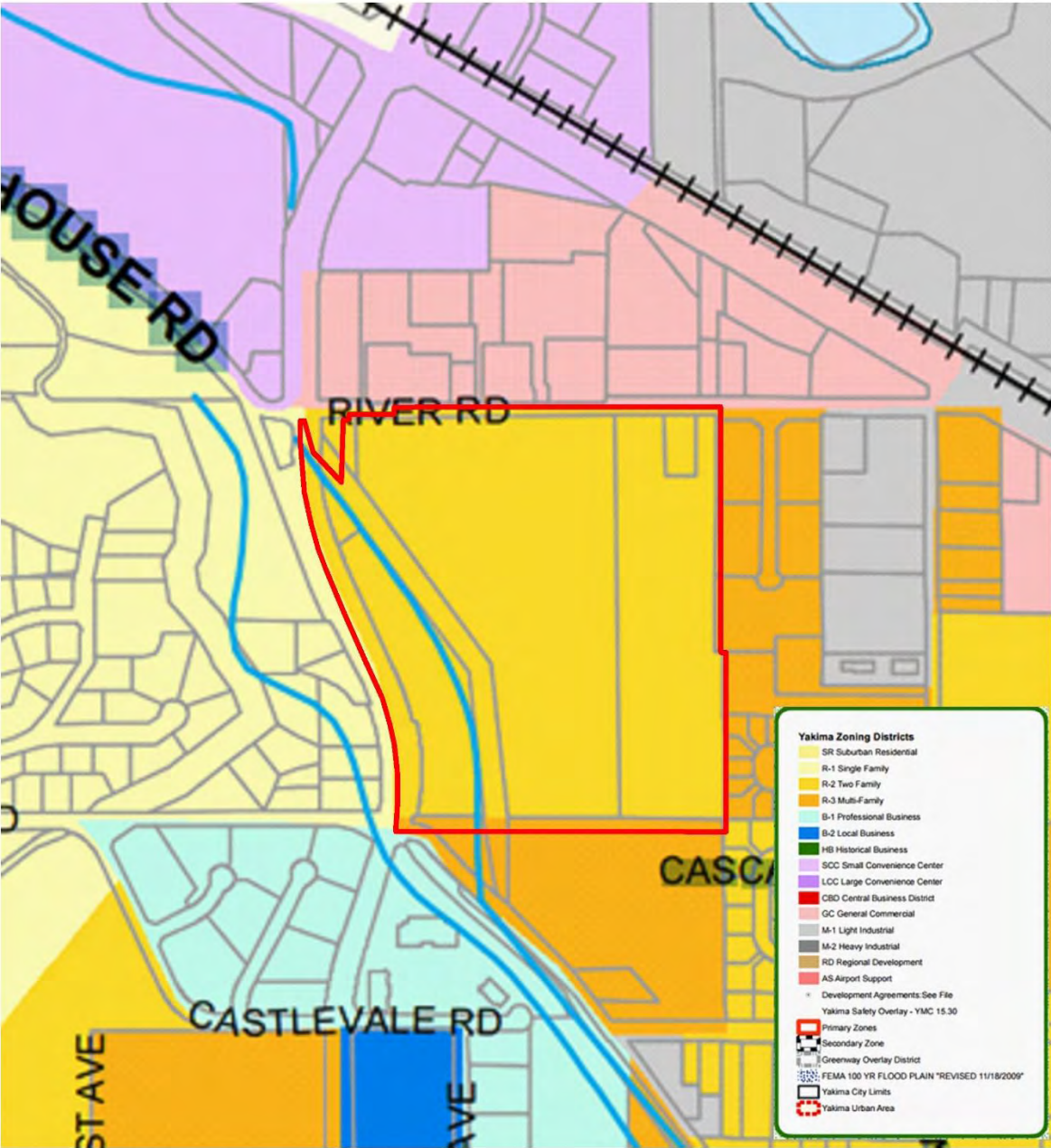
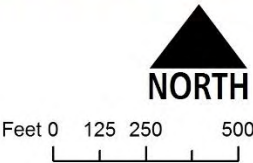


Figure 7. Chesterley Park Zoning Map



following categories: neighborhood (40), transportation (49), health (36), and opportunity (46).

5.1.1.2 Recreation Resources

The primary recreational resources at Chesterley Park are six full size soccer fields and two small-sized soccer fields covering approximately 11 acres. Additional resources include a skate park covering approximately 0.25 acres and a playground covering approximately 0.1 acres. About 0.25 miles of the paved Powerhouse Canal Pathway extends through the western park area by N 40th Ave, and continues all the way to McGuiness Park. An additional paved trail extends from east to west through the middle of the park, ending at each of the two parking lots. This 900-foot trail connects to a covered picnic area and public restrooms. Three acres of parking facilities are located on the northwest and northeast corners. All other land is lawn area. Additional resources include a storage structure, benches, picnic tables, grills, trash cans, and signage. A chain-link fence lines the park boundary.

The 5.59-acre conversion area contains one full size soccer field, part of an additional full size soccer field that will be decommissioned, and additional lawn area. Other accessory features in the conversion area include picnic tables, benches, trashcans, signage, and fencing.

5.1.1.3 Circulation and Transportation

Chesterley Park does not contain any roads and vehicular traffic is limited to the use of two parking lots. The northwest parking lot contains 185 parking spaces and the northeast parking lot contains 102 parking spaces, totaling 287 parking spaces. Both parking lots connect to River Rd on the northern border of Chesterley Park. Parking is well utilized and relies upon overflow parking of nearby businesses during tournament play.

River Road is classified as a local road and connects to a commercial area east of the park and turns into W Powerhouse Rd to the west. Average daily traffic is unknown as no studies have been conducted along this stretch of road. It features two lanes with bike lanes on both sides and a sidewalk to the north. The posted speed limit is 25 MPH.

Chesterley Park borders N 40th Ave to the west, a busy street with average daily traffic of 24,513 vehicles (City of Yakima 2016a). N 40th Ave is a principle arterial connecting west Yakima to US-12, which leads in and out of the City. It has four lanes, a sidewalk on the west side, and no bike lanes. The adjacent Powerhouse Canal Pathway provides additional walking options through Chesterley Park. The speed limit along this stretch of road is 35 MPH.

Bus stops are available at and near the park. Bus Route #4 circulates the central Yakima area and stops at the intersection of River Rd and N 40th Ave, the northwest park corner. Bus Route #3 circulates the same loop as Route #4 in the opposite direction and stops on Fruitvale Blvd, about 600 feet north of the park.

5.1.1.4 Aesthetics and Special Characteristics

The overall aesthetic is typical for a park of this nature. It is characterized by an open park area with primarily soccer fields and interspersed ornamental trees. It is nearly level and features views of distant hills to the north and nearby slopes to the west. Chesterley Park is designed for recreational utility and sports rather than nature or aesthetics, yet remains a green oasis in an otherwise urban landscape.

5.1.2 Replacement Park Area

5.1.2.1 Land Use and Zoning

The Replacement Park is currently zoned M-1 Light Industrial (Figure 9). In the M-1 zone, a park is a Class-2 use that will require additional review from an administrative official. The property is also within both the Primary and Secondary Airport Safety Overlay Districts. The Airport Safety Overlay Districts imposes certain limits on structure height of development and potentially incompatible land uses. Parks are considered a compatible use within the Airport Safety Overlay District.

Historic aerial photographs dating back to 1949 indicate that the Replacement Park area was previously host to a few structures on the southeast corner and may have been used at least in part for residential or agricultural purposes (Figure 8). At this point in time, Spring Creek was aligned through the site in straight artificially-altered channels. Spring Creek also merged with another unnamed creek in the center of the property. Although it no longer exists today, the additional creek extended west through current day residential developments and has been drained or diverted. The aerial photography depicts a row of trees along the floodway (the southernmost channelized landform). The surrounding area was primarily agricultural in 1949, but much of that has given way to residential development. The property is abutting the current city limits, bordering Yakima County land. Land use in the vicinity hasn't changed significantly in the previous 20 years, although some residential development has occurred and the SOZO Sports Center is under construction .

Data was obtained from the AARP livability index to characterize the area around the Replacement Park. This index ranked the Replacement Park with a total score of 47, slightly below that of Chesterley Park. The location scored well for the following categories: housing (53), environment (67), and civic/social engagement (52). 16.4% of income is spent on housing at this location, lower than the 18.4% national average, but higher than the Chesterley Park area. There are multiple types of housing available including multi-family, single family, and subsidized. The area scored below average for the categories: neighborhood (35), transportation (43), health (36), and opportunity (44).



Figure 8. City of Yakima 1949 Aerial Photo with approximate Replacement Park boundary (CWU 1949b).

5.1.2.2 Recreation Resources

The Replacement Park currently exists as open space with no public access. Existing recreational opportunity of the property is limited to views from nearby residences and passersby that may engage in bird watching or enjoy the scenery.

5.1.2.3 Circulation and Transportation

There are no roadways, driveways, or traffic of any kind within the Replacement Park property. To the west of the site is S 40th Ave, a local gravel road with low traffic and no posted speed limit. Spring Creek Rd and S 36th Ave are paved two-lane streets classified as local roads by the City of Yakima but function as collector arterials. Both Spring Creek Rd and S 36th Ave provide the connection from local residences to busy primary arterials such as W Washington Ave and minor arterials such as W Ahtanum Rd. Both Spring Creek Rd and S 36th Ave have a 35 MPH speed limit. No bus routes service the Replacement Park area. The nearest bus stop is located 1.5 miles away on the northwest side of the airport.

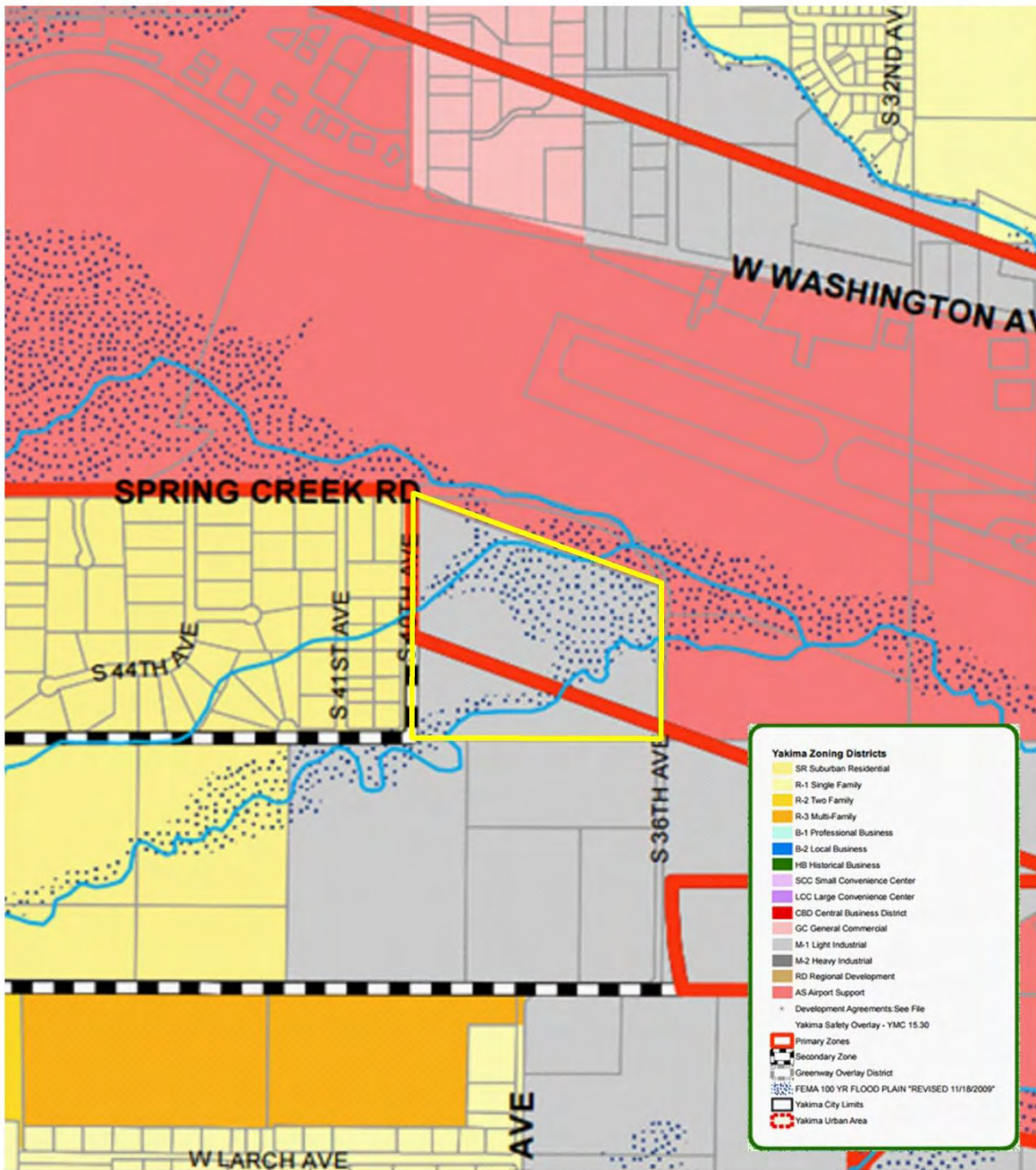


Figure 9. Replacement Park Zoning

5.1.2.4 Aesthetics and Special Characteristics

The overall aesthetic of the Replacement Park property is characterized by a natural area in a landscape of primarily farmland, pasture, airport, and residential development. Vegetation grows densely on gentle slopes, providing some of the only ungrazed natural land in the vicinity. Abundant wetlands provide a unique feature that is relatively rare in the Arid West Region.

5.2 Geological Resources

Geological resources refer to the composition and history of soils and rock that may be impacted by project activities. Data was gathered to understand soils and geology in the project area. Information about subsurface conditions was obtained from geologic maps, topographical information, the Web Soil Survey, and field exploration.

5.2.1 Chesterley Park Conversion Area

Chesterley Park is located on the floodplain terrace of the Naches River, just upstream of the confluence with the Yakima River. Soils located within Chesterley Park include Ashue loam and Yakima silt loam soil series (NRCS 2016). See Figure 10 for mapped soil areas. Ashue loams include a surface horizon of loam underlain by very gravelly clay or sandy loams and a horizon of extremely gravelly sands. They are well drained on 0 to 2 percent slopes and were formed from alluvium on terrace landforms. Yakima silt loams include a silt loam surface horizon underlain by gravelly very fine sandy loam and a horizon of extremely gravelly coarse sand. Yakima silt loams are well drained on 0 to 2 percent slopes and were formed from alluvium on floodplains. The soils are rated as prime farmland if irrigated.

Geological stratigraphic units within the park include Qt1 – Terrace Deposits and Teu – Ellensburg Formation Undifferentiated (Bentley, R. D. and Newell P. Campbell 1983). Terrace Deposits are a diverse composition of poorly indurated silts, sands and gravels largely confined to the Yakima River drainage system. The Ellensburg Formation Undifferentiated unit contains gravels, sands, silts, and clays (white to reddish brown), weakly to moderately indurated fluvial and laharc deposits, and basaltic clasts. The base is defined as the Columbia River Basalt Group, but the unit includes all conformably underlying sediments of similar lithology beyond the lowermost Columbia River basalt flow pinchout (Bentley, R. D. and Newell P. Campbell, 1983). Slopes to the west of the site are mapped as High Risk – Oversteep Slopes (City of Yakima, 2016b). The slopes do not extend into the park area; however, a small sliver of

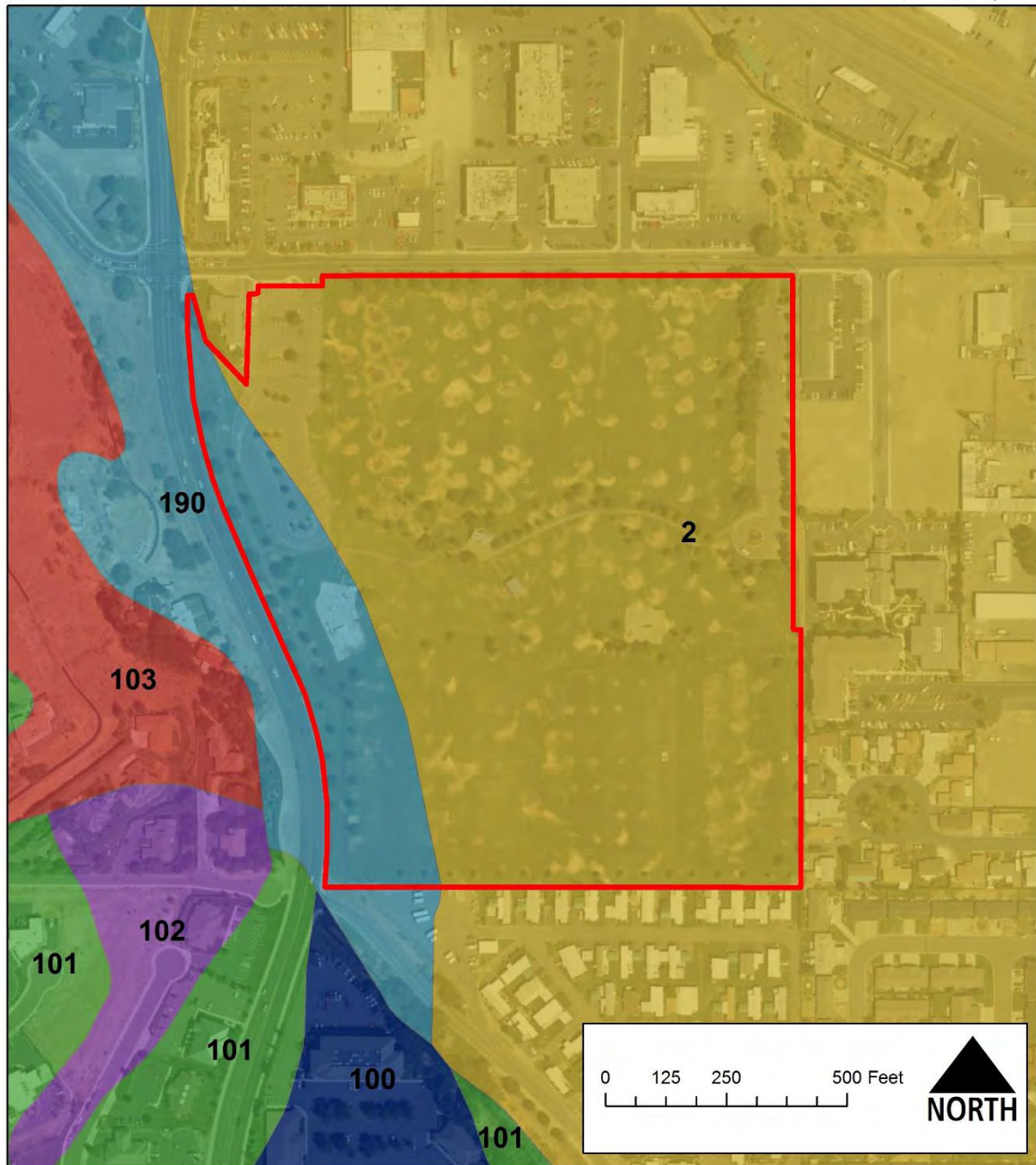


Figure 10. Chesterley Park Soil Map

2 - Ashue loam	102 - Ritzville silt loam, 15-30% slopes
100 - Ritzville silt loam, 5-8% slopes	103 - Ritzville silt loam, 30-60% slopes
101 - Ritzville silt loam, 8-15% slopes	190 - Yakima silt loam

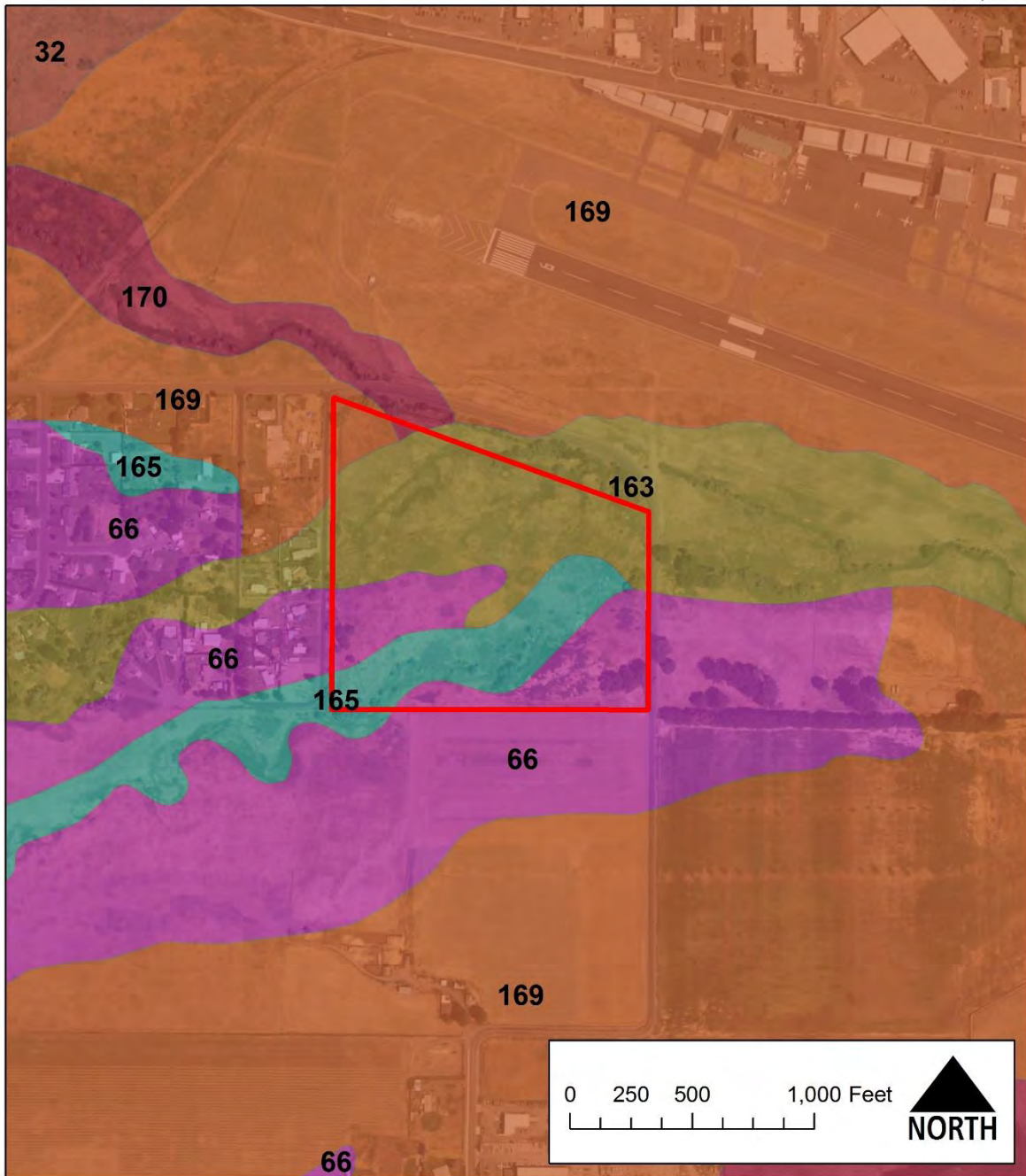


Figure 11. Replacement Park Soil Map

163 - Toppenish silt loam	170 - Umpaine silt loam, drained, 2-5% slopes
165 - Track loam	32 - Esquatzel silt loam, 0-2% slopes
169 - Umapine silt loam, drained, 0-2% slopes	66 - Kittitas silt loam

Chesterley Park is mapped in this zone. Areas mapped as high risk are not within the conversion area.

5.2.2 Replacement Park Area

The Replacement Park is characterized by a relatively flat field with gradually sloping topography and abundant depressions. Soils located within the Replacement Park include Kittitas silt loam, Toppenish silt loam, Track loam, and Umapine silt loam soil series (Figure 11) (NRCS 2016). These soil series are somewhat poorly drained, found on 0 to 5 percent slopes, and formed from alluvium on floodplains. Kittitas silt loams include a surface horizon of silt loam to about 41 inches over a stratified fine sandy to silty clay loam. They are rated as farmland of statewide importance. Toppenish silt loam includes a surface horizon of silt loam over silty clay loams and extremely gravelly sand. They are rated as prime farmland if protected from flooding, however, no such protection currently services the area. Track loam includes a surface layer of loam over very gravelly loam and very gravelly loamy sand. Umapine silt loams include a surface layer of silt loam to at least 60 inches. Track loam and Umapine silt loams are not prime farmland.

The park is located within the Qas – Alluvium stratigraphic unit which is characterized by stream deposits of silt, sand, and gravel of dominantly of basaltic composition (Bentley, R. D., and Newell P. Campbell, 1983). It is typically confined to valley bottoms; it may include local lacustrine, paludal, and eolian deposits in depressions deposited by tributaries of the Yakima River (Bentley, R. D. and Newell P. Campbell, 1983).

5.3 Water Resources

Water resources addressed in this document include surface waters, floodplains, wetlands, groundwater, stormwater, and water quality characteristics.

Surface water is water that is collected and stored in naturally-occurring bodies of water, such as lakes, streams, rivers, wetlands, or oceans. The term surface water also includes manmade storage systems, such as detention ponds.

Floodplains are areas prone to periodic inundation and are generally associated with streams, rivers, or lakes. FEMA maps substantial floodplains that have at least a 1 percent probability of flooding in a given year, defined as the Base Flood Elevation (BFE). The BFE is the elevation to which floodwaters are anticipated to rise during this flood event and define the limits of Zone A on Flood Insurance Rate Maps (FIRMs).

These FIRMs are used to indicate FEMA-delineated floodplains (Zone A) and floodways. A FEMA floodway is the channel of the river and adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

A wetland delineation titled *Wetland Investigation and Delineation Report RCO Conversion Process at Chesterley Park* was completed for the project in November of 2016 that provides information on wetlands within the Replacement Park area. The National Wetlands Inventory (NWI) was also reviewed (USFWS 2016a).

5.3.1 Chesterley Park Conversion Area

5.3.1.1 Surface Waters and Floodplains

No streams or existing floodplains are located within Chesterley Park.

5.3.1.2 Wetlands

No wetlands are located within Chesterley Park.

5.3.1.3 Groundwater

Groundwater at Chesterley Park is a part of the regional Yakima Basin water table. The City of Yakima is within an arid region characterized by little overall rainfall. Small amounts of precipitation infiltrate to groundwater. Groundwater was not encountered in the top two meters of the soil unit during NRCS soil surveys (NRCS 2016).

5.3.1.4 Stormwater and Water Quality

Stormwater from Chesterley Park primarily infiltrates into the ground but runoff from one of the parking lots drains into an irrigation canal through a stormwater pipe. The irrigation canal eventually drains into Wide Hallow Creek, a tributary of the Yakima River.

Activities within Chesterley Park generate pollution that contribute to cumulative downstream impacts. Maintenance of the lawn area and gardens includes fertilizers and pesticides that runoff during storms into downstream aquatic environments. Airborne deposition and automobile leaks also contributes to pollution that is picked up in runoff.

5.3.2 Replacement Park Area

5.3.2.1 Surface Waters and Floodplains

Spring Creek is just outside of the northern site boundary, originating from a spring and irrigation water to the northwest. Just north of the Replacement Park property, Spring Creek crosses Spring Creek Rd twice through culverts located to the northwest and northeast.

East of the replacement park, Spring Creek flows through the airport where it travels through a series of extremely long culverts before draining into Bachelor Creek. Culverts beneath runways exceed 800 feet in length. Bachelor Creek drains into Ahtanum Creek, a tributary to the Yakima River.

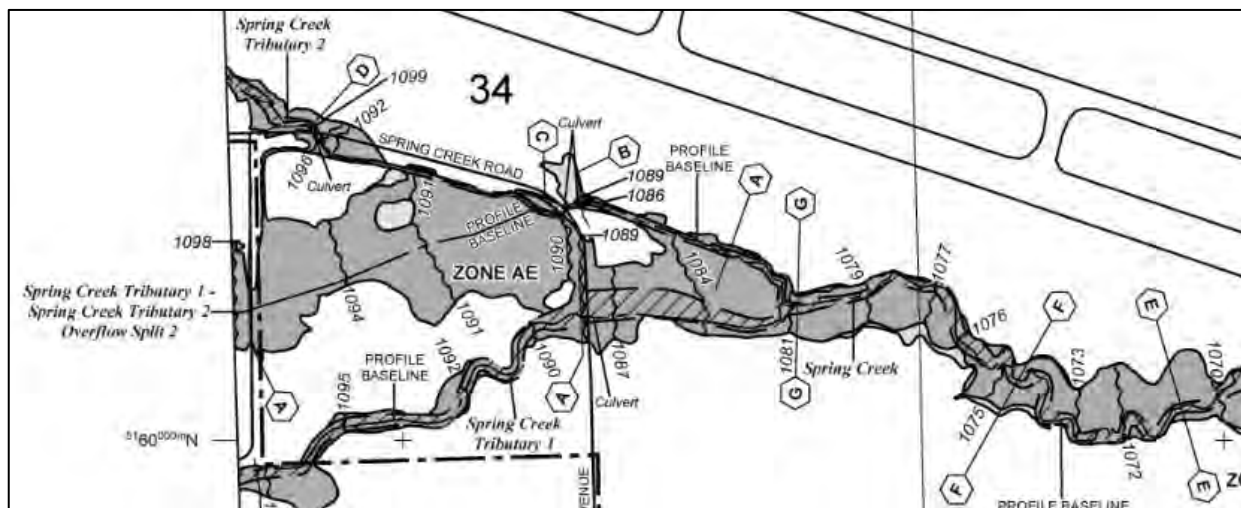


Figure 12. Selection of a FEMA flood map at the Replacement Park.

The Replacement Park is within the FEMA-mapped 100-year floodplain, receiving overflow water from Bachelor Creek during infrequent and large flood events (Figure 12). Floodwaters diverge north from Bachelor Creek in-between Ahtanum Rd and Walla Walla St and flow through the neighborhood west of the Replacement Park property. About half the Replacement Park property is located outside the 100-year floodplain, particularly the southern area. The channelized landform on the southern part of the property is a FEMA mapped floodway. Spring Creek also contains a mapped floodway.

5.3.2.2 Wetlands

A wetland delineation has been conducted to determine the extent of wetland area within the Replacement Park area (Widener & Associates 2016). Palustrine emergent wetlands and riverine emergent wetland were identified in depressions and channels within the floodway

and floodplains. Based on the data collected in field investigations, seven wetlands were found within the property with a total area of 2.28 acres. Some but not all wetlands are subject to United States Army Corps of Engineers (USACE) jurisdiction under the Clean Water Act. Wetland boundaries and jurisdiction referenced in the report should be considered preliminary until confirmed by the USACE. See Figure 13 for a map of the wetland area.

The large northern wetland connects to Spring Creek and where backwater inundates surrounding depressions. A regionally high water table supplements water to the area and provides additional wetland hydrology. This wetland also includes vegetated areas of Spring Creek which are mostly dominated by the invasive yellow flag iris (*Iris pseudacorus*). Dominant plants found in other parts of the wetland area includes cat tail (*Typha latifolia*), fringed willowherb (*Epilobium ciliatum*), rushes (*Juncus spp.*), reed canarygrass (*Phalaris arundinacea*), pepperweed (*Lepidium latifolium*), and Fuller's teasel (*Dipsacus fullonum*).

Other wetlands are primarily groundwater fed and are supplemented by infrequent flooding events. These floods do not occur at a frequency that produce an Ordinary High Water Mark (OHWM), which typically develops with flows that have a 50% chance of occurring per year, or around the two-year flood. It is within the mapped 100-year floodplain and would typically flood at least once per 100-years. Inundation of the floodway is likely to occur at a similar frequency. Floodway designation does not consider flood frequency, but rather is defined by landform and geomorphic position relative to the flow of water. Common plants in these wetlands include pepperweed, Fuller's teasel, juncus species, lamb's quarters (*Chenopodium album*), and Canada thistle (*Cirsium arvense*).

5.3.2.3 Groundwater

Groundwater at the Replacement Park is primarily fed by waters originating from the Cascades during periods of rainfall and snowmelt. The City of Yakima is within an arid region characterized by little overall rainfall. Groundwater is supplemented from infrequent flooding that locally elevates the water table and in small amount from participation. Ground water at this site is notably high and responsible for hydrologic input to multiple wetlands.

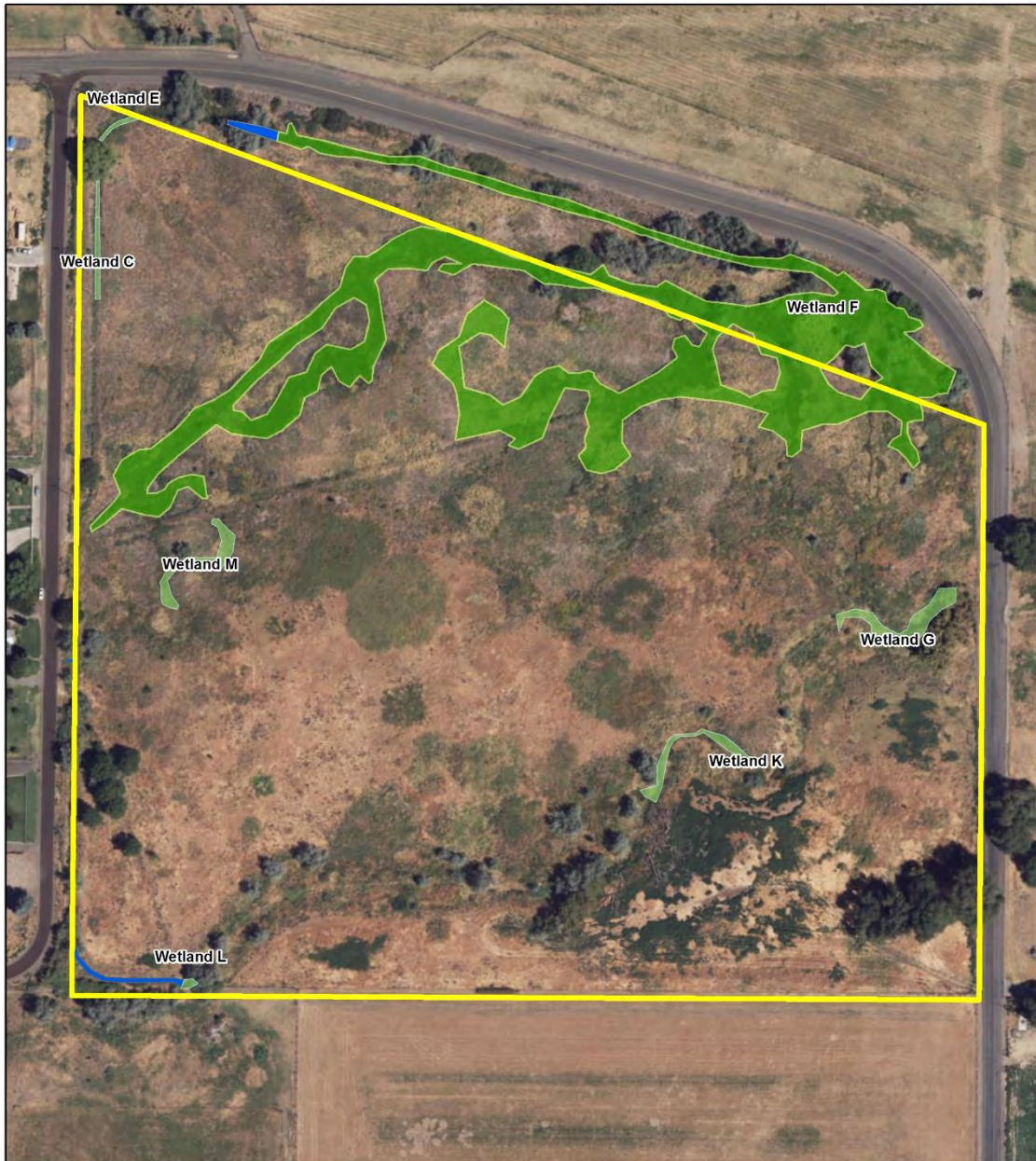
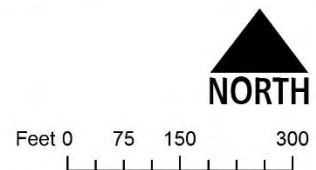


Figure 13. Delineated Wetlands



*Jurisdiction refers to United States Army Corps of Engineers Jurisdiction



The NRCS Web Soil Survey lists water table depth between 8-92 centimeters for mapped soils, however this depth will vary depending on climate conditions, seasonal variation, and local topography (NRCS 2016).

5.3.2.4 Stormwater and Water Quality

Precipitation will generally infiltrate into soils as the site contains primarily undeveloped pervious surfaces. During periods of flooding, runoff will drain into Spring Creek. Floodwaters flowing through the property can transport dissolved or suspended sediments and air deposited pollutants to downstream impaired waters.

Wetlands adjacent to Spring Creek provide water quality benefits through processes such as bioretention and biotransformation. During flood events, other wetlands within the site also have opportunity to provide water quality improvements.

Spring Creek is not 303(d) listed, however downstream sections of Ahtanum Creek and the Yakima River are both Category 5 impaired waters. Category 5 303(d) listings including polychlorinated biphenyls (PCBs), bacteria, dichlorodiphenyldichloroethane (DDD), dichlorodiphenyldichloroethylene (DDE), dichlorodiphenyltrichloroethane (DDT), and temperature (Ecology, 2016b).

5.4 Air Quality

Air quality is measured by the concentration of harmful airborne contamination that can affect the health of humans and animals. Both sites are in a PM₁₀ maintenance zone as regulated by the National Ambient Air Quality Standards (NAAQS), established by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act. PM₁₀ is defined as particulate matter less than 10 micrometers in size and can be emitted from a variety of sources such as cars, heaters, fires, windblown dust, and industrial processes. Particulate matter is absorbed through the lungs and can cause allergies, infections, fibrosis, cancer, respiratory symptoms, and toxic effects. The primary sources of PM₁₀ within the maintenance area include emissions from motor vehicles, industrial centers, residential heating systems, wood and outdoor burning, and windblown dust from dirt roads in the City of Yakima area.

5.4.1 Chesterley Park Conversion Area

Emissions generated from within the park are limited, but include the operation of motor vehicles, motorized equipment, and barbeques. Cars utilize parking areas and emit exhaust

while entering and exiting the park, and idling. Park maintenance also includes the use of motor vehicles such as lawn mowers and weed whackers.

5.4.2 Replacement Park Area

The Replacement Park site exists as undeveloped land, so emissions generated from within the area are limited to natural processes. These may include a small amount of windblown dust, but are negligible compared to regional contributions.

5.5 Noise

Noise is defined as unwanted sound and is recognized as having both a physical and a psychological component (Maekawa and Lord. 1994; Bell et al. 1996; Berglund et al. 1996). The physical component is quantifiable by sensors that measure sound pressure levels, while the psychological component (the degree of annoyance) depends on the listener as well as the frequency and time of the varying pattern of the sound. Low frequency (particularly man-made) and impulse sounds are thought to result in higher levels of annoyance (Hall et al. 1981; Maekawa and Lord 1994; Bell et al. 1996; Berglund et al. 1996). Impulse sounds are sharp sounds that last for short periods such as whistles or horns.

When measuring noise, the decibel (dB) scale is used to describe and quantify the noise levels experienced by a receiver. The threshold of human hearing is at 0 dB. Generally, a 3-dB increase is barely perceptible to human listeners. A 6-dB increase corresponds to a doubling of the sound; however, a 10 dB increase is necessary for the sound to be perceived as being twice as loud (FHWA 1995; Maekawa and Lord 1994; Boeker and Van Grondelle 1995).

5.5.1 Chesterley Park Conversion Area

The primary source of noise audible from Chesterley Park is vehicular traffic. The park is bordered by arterial streets N 40th Ave to the west and River Rd to the north. N 40th Ave is a four-lane divided road and River Rd is a two-lane divided road. A 2015 City of Yakima traffic study found that the average daily traffic along this section of road is 24,513 vehicles, making it one of Yakima's most highly trafficked roads (City of Yakima 2016). Sports activities such as soccer games and skate park activity add to the noise environment. Sports games typically result in loud yelling and whistles. Additional noise emitters include nearby commercial and residential activities.

5.5.2 Replacement Park Area

The primary source of noise at the Replacement Park is vehicular traffic, airplane landings and takeoffs, and the SOZO sports complex. The park is bordered by S 40th Ave to the west, Spring Creek Rd to the north, and S 36th Ave to the east. Spring Creek Rd and S 36th Ave function as colleterial arterial roads with 35 MPH speed limit and unknown traffic volumes. S 40th Ave is a residential road with little traffic. Yakima Air Terminal – McAllister Field is located across the street to the north and is responsible for the highest volume noise disturbance to the property. The SOZO Sports Complex is located adjacent to the southern edge of the property, with soccer fields abutting the proposed park boundary. Noises generated from soccer activities include whistles, loud voices and shouting, and spectator vocalization. Additional noise is generated from residential properties to the west. Naturally occurring sounds include wind and bird calls.

5.6 Biological Resources

Biological resources refer to plants and wildlife that may occur on the site for a permanent or temporary basis for any period of their lifecycle. Literature and field reviews were conducted to assess the viability of habitat for species of concern and potential impacts related to the project.

Section 7 of the Endangered Species Act (ESA) requires that, through consultation with the USFWS and/or the NMFS, federal actions do not jeopardize the continued existence of any threatened, endangered, or proposed species or result in the destruction or adverse modification of critical habitat. ESA-listed species and habitat presence was assessed in this section.

Section 305(b)(4) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires that each federal agency shall consult on any action authorized, funded, or undertaken, or proposed to be authorized, funded, or undertaken, by the agency that may adversely affect any essential fish habitat (EFH) identified in the MSA. This environmental assessment does not discuss MSA further as there is no fish habitat within the project area.

5.6.1 Chesterley Park Conversion Area

5.6.1.1 ESA Listed Species

The official NMFS species list and USFWS IPaC list identify seven ESA listed species as potentially occurring within the Chesterley Park area (Table 1) (NMFS 2012; USFWS 2016b). These lists are developed at a regional scale that does not consider local site conditions and may or may not represent actual species or habitat presence within the project area. Chesterley Park is characterized by sports fields, managed grassy lawns, and parking lots that do not provide habitat for any terrestrial or aquatic ESA-listed species.

Table 1. ESA listed species at Chesterley Park.

	Common Name	Scientific Name	Federal Status
USFWS	Marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened
	Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened
	Gray wolf	<i>Canis lupus</i>	Endangered
	Canada lynx	<i>Lynx canadensis</i>	Threatened
	North American wolverine	<i>Gulo gulo luscus</i>	Proposed Threatened
	Bull trout	<i>Salvelinus confluentus</i>	Threatened
NMFS	Steelhead (Middle Columbia River DPS)	<i>Oncorhynchus mykiss</i>	Threatened

5.6.1.2 Plant & Animal Species of Concern

Chesterley park is characterized by a large flat field with no suitable habitat for any plant or animal species of concern. The environment consists of a heavily used lawn and some ornamental trees. A review of the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Interactive Mapping Tool found no species of concern within Chesterley Park (WDFW 2016). The Washington Department of Natural Resources (DNR) Rare Plant Species Layer identified no species of concern in the vicinity (DNR 2016b).

5.6.1.3 Invasive Species

Invasive species are infrequent at Chesterley Park as it contains primarily mowed fields with a seeded grass mix. Some naturalized invasive species such as clover (*Trifolium spp.*) and dandelion (*Taraxacum officinale*) are present in the lawns. Any rhizomatous or creeping

spread of weeds are limited to the non-paved park area. By various means of seed dispersal, invasive species onsite make small contributions to the prevalence of these invasive species.

5.6.2 Replacement Park Area

5.6.2.1 ESA Listed Species

The official NMFS species list and USFWS IPaC list identify six ESA listed species as potentially occurring within the Replacement Park area (Table 2) (NMFS 2012; USFWS 2016b).

Table 2. ESA listed species at the Replacement Park.

	Common Name	Scientific Name	Federal Status
USFWS	Marbled murrelet	<i>Brachyramphus marmoratus</i>	Threatened
	Yellow-billed cuckoo	<i>Coccyzus americanus</i>	Threatened
	Gray wolf	<i>Canis lupus</i>	Endangered
	North American wolverine	<i>Gulo gulo luscus</i>	Proposed Threatened
	Bull trout	<i>Salvelinus confluentus</i>	Threatened
NMFS	Steelhead (Middle Columbia River DPS)	<i>Oncorhynchus mykiss</i>	Threatened

Fish Species: No fish bearing streams are located onsite. Spring Creek is located just north of the project area which connect to Bachelor Creek downstream after a series of very long culverts. Near the confluence of the two streams is a fish hatchery that releases into Bachelor Creek. Neither Spring Creek nor Bachelor Creek are mapped critical habitats for ESA-listed species, but they drain into Ahtanum Creek which contains critical habitat for both bull trout and steelhead. Bachelor Creek also has a documented presence of steelhead (WDFW 2016b). Spring Creek is generally characterized by low flow and thick vegetation throughout, particularly with yellow flag iris. Substrate contains little to no gravel and is primarily mucks and silts that do not provide spawning habitat for salmonid species.

Yellow-billed Cuckoo (*Coccyzus americanus*): Yellow-billed cuckoos are migratory birds that breed in riparian forest stands dominated by cottonwoods (*Populus spp.*) and willows (*Salix spp.*). No riparian cottonwood or willow trees are located within the project area. In other regions where they are more likely to occur, yellow-billed cuckoos are most likely to be found in patches of willow-cottonwood riparian habitat greater than 200 acres in size (78 FR 61622-61666). The last confirmed breeding of yellow-billed cuckoos in Washington was in the 1930's, and it is probable that cuckoos no longer breed in the State (WDFW 2012; WSDOT 2015b). The

yellow-billed cuckoo is generally considered to be extirpated from Washington State (Teachout 2015). No critical habitat for the species has been proposed in the State of Washington (79 FR 48548). The Replacement Park property does not contain any suitable habitat for yellow-billed cuckoos.



Figure 14. Spring Creek as it passes through the parcel just north of the Replacement Park. Photo taken February 19, 2016.

Marbled Murrelet (*Brachyramphus marmoratus*): Nesting marbled murrelet are dependent on low elevation mature and old-growth coniferous forests with multi-layered canopies on the lower two-thirds of forested slopes. While compiling information for the listing of marbled murrelet designated critical habitat, all known nesting trees were larger than 30 inches in diameter at breast height (DBH) and had large branches with complex structures to support nests (USFWS 1996). Despite general favorability of larger trees, trees with a DBH of 15 inches or greater with wide platforms in the canopy are considered suitable habitat if they contain nesting platforms (WSDOT 2015). Marbled murrelet nests are most often observed within 12 miles of the ocean but have been found as far as 50 miles from saltwater (Shohet et al. 2008). Saltwater foraging habitat is no closer than 150 miles from the project site. The nesting season for marbled murrelet is April 1st through September 23rd (WSDOT 2015). Suitable nesting forest stands are conifer-dominated and greater than 5 acres in size (WSDOT 2015). The Replacement Park contains no marbled murrelet habitat as there are no conifer forests and the distance to salt water foraging habitat exceeds the observed limit.

North American Wolverine (*Gulo gulo lascus*): While the North American wolverine is listed as potentially occurring within Yakima County, no suitable habitat is found within the project area. Wolverine habitat typically consists of mountainous, high alpine regions, with a large

surrounding dispersal area (Inman 2013). They occupy these habitats at a very low density and depend on intact migration corridors. The project takes place in an urban area, far from any alpine regions or potentially suitable habitat.

Gray Wolf (*Canis lupus*): Gray Wolves are habitat generalists that were historically widespread across the continental United States. Having nearly disappeared, recovery efforts have reintroduced the species into Washington State. None, however, currently reside in Yakima County (WDFW 2016c). Wolves could be impacted by any type of habitat loss, but they are most sensitive to disturbance at dens and rendezvous sites. Since they are not present in Yakima County, no dens or rendezvous sites will be impacted. Despite their absence in Yakima County, the species range may expand and occupy suitable habitat in the future. The property is in relatively natural condition yet is surrounded by agriculture, residential, industrial, and airport land in every direction. The closest undeveloped land with adequate habitat connectivity and appropriate habitat size is at least two miles away where a ridge extends from the Cascades to Union Gap. The proximity to human activity and surrounding land use makes the site unsuitable for any type of wolf habitat.

5.6.2.2 Plant & Animal Species of Concern

A review of the Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) Interactive Mapping Tool identified one priority species; the Townsend's ground squirrel (*Urocitellus townsendii*). The Townsend's ground squirrel is a Washington State Candidate Species that resides in desert scrublands throughout the Great Basin and Columbia Plateau. In Washington State, they can be found only in the Columbia River Basin in Klickitat, Benton, Yakima, and Kittitas counties and typically inhabit shrub steppe, native grasslands, pastures, orchards, vineyards, highway margins, vacant lots, and the banks of canals (WDFW 2011). The Replacement Park site is a vacant lot with relatively undisturbed land that may provide habitat for the species. The Washington Department of Natural Resources (DNR) rare plant species layer was reviewed and no plant species of concern were identified within the project vicinity (DNR 2016b).

5.6.2.3 Invasive Species

Nearly the entire vegetative community is dominated by non-native invasive species. These include Russian thistle (*Salsola tragus*), tall tumbleweed mustard (*Sisymbrium altissimum*), small tumbleweed mustard (*Sisymbrium loeselii*), hoary cress (*Lepidium draba*), pepperweed (*Lepidium latifolium*), lamb's quarters (*Chenopodium album*), Canada thistle (*Cirsium arvense*), Scotch thistle (*Onopordum acanthium*), reed canarygrass (*Phalaris arundinacea*), yellow flag

iris (*Iris pseudacorus*), and Fuller's teasel (*Dipsacus fullonum*). Through various means of seed dispersal, these species add to the proliferation of invasive species in the area.

5.7 Cultural Resources

Section 106 of the National Historic Preservation Act of 1966 requires federal agencies to consider the effects of their undertakings on historic properties and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. As part of the Section 106 process, NPS and the RCO work with consulting parties including the SHPO (i.e. DAHP) and Native American Tribes.

Listed and eligible historic properties are recorded in the National Register of Historic Places (NRHP). Historic properties may be buildings or other structures, objects, districts, archaeological sites, or traditional cultural properties. Section 106 also applies to historic properties that have not yet been listed or formally determined to be eligible for listing on the NRHP, including eligible properties that have not yet been discovered or evaluated.

5.7.1 Chesterley Park Conversion Area

A search of Washington Information System for Architectural & Archaeological Records Data (WISAARD) has revealed that while many historic properties are located within the City of Yakima area, no known sites are in the project vicinity. The nearest registered historic structure is the Alderson Barn, located a half-mile to the southeast. No cultural resources were discovered during previous development of the park.

5.7.2 Replacement Park Area

A search of WISAARD has identified no historic properties or archaeological resources within the project vicinity. The nearest registered historic property is the Tahoma Cemetery, 0.85 miles to the northeast. No archaeological sites have been registered within a two-mile radius of the project area. In other nearby projects, including on adjacent airport land, cultural resource surveys did not result in the identification of potentially significant cultural materials.

A pedestrian survey has been completed by a qualified archeologist in April of 2017 to determine if any archaeological or cultural resources are present within the proposed park area and a report is being compiled (Appendix D). The survey indicates that no archaeological evidence was found and that no further evaluation is necessary.

5.8 Environmental Justice, Socioeconomics, and Disability Access

Title VI of the Civil Rights Act of 1964 and subsequent Executive Order 12898 requires that federal activities consider possible disproportionate and high adverse environmental effects to minorities and low-income populations. The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 establishes a policy for the fair and equitable treatment of individuals and businesses displaced as a direct result of programs or projects undertaken by a federal agency or with federal financial assistance.

Minority and low-income demographic data for a 0.5-mile radius of each park was obtained from EPA's EJSCREEN which utilized 2010 Census and 2014 American Community Survey data. Demographic data for Washington State and the City of Yakima was also obtained from the 2010 Census, 2014 American Community Survey, and from EJSCREEN Reports. Table 3 displays demographic data for Chesterley Park, the Replacement Park, the City of Yakima, and Washington State. It should be noted that the U.S Census Bureau defines race and Hispanic origin (aka. ethnicity) as two separate concepts. Individuals that identify as Hispanic can be of any race and are thus separated from the other races. Additional Demographic data for the closest public school to each park was obtained from Office of Superintendent of Public Instruction – Washington State Report Card to provide a supplemental source of demographic data.

5.8.1 Chesterley Park Conversion Area

Demographic data for Discovery Lab School was analyzed because it was the closest public school to Chesterley Park, located 0.5 miles southeast (Table 4). Based on the available data, the following comparisons have been drawn about demographics in the vicinity of Chesterley Park:

- Per capita income for residents near the park is \$10,321 higher than in the City of Yakima
- The proportion of low income populations is 3.0% greater near the park than the City of Yakima. The discrepancy between per capita income and low income populations suggests a large wealth gap.
- The proportion of households with income <\$15,000 is 4.2% greater near the park than the City of Yakima.
- The proportion of minority populations is 13% lower at Chesterley Park than the City of Yakima.

Table 3: Demographic Data for Washington State, the City of Yakima, and One-Half Mile Radius to Chesterley Park and the Replacement Park

Subject	Washington	City of Yakima	Chesterley Park	Replacement Park
Population¹	6,724,540	91,067	2,713	641
Per Capita Income²	\$31,762	\$20,736	\$31,057	25,150
Low Income Population³	30%	* 52%	55%	29%
Household Income <\$15,000³	10%	16%	20%	6%
Race¹				
Caucasian	77%	67%	73%	86%
Black/African American	4%	2%	1%	1%
American Indian/Alaska Native	2%	2%	2%	1%
Asian	7%	2%	2%	2%
Native Hawaiian/Pacific Island	1%	0%	0%	0%
Some Other Race	5%	23%	18%	5%
Two Or More Races	5%	4%	4%	5%
Total Hispanic Population	11%	41%	29%	15%
Total Minority Population³	29%	* 48%	35%	21%
Speaks English "less than very well"²	8%	18%	11%	2%
Sex¹				
Male	50%	49%	46%	38%
Female	50%	51%	54%	62%
Population by Age¹				
0-4	7%	9%	6%	5%
0-17	24%	28%	21%	23%
18+	77%	72%	79%	77%
65+	13%	13%	26%	19%
Highest Education Attainment (≥25 years)²				
High School Graduate	23%	26%	25%	33%
Some College	25%	21%	32%	41%
Associate Degree	10%	10%	6%	8%
Bachelor's Degree or More	33%	11%	20%	19%
Occupied Housing Units by Tenure¹				
Owner Occupied	64%	54%	47%	83%
Renter Occupied	36%	46%	53%	17%

1 - US Census Bureau, Census 2010 via on EJSCREEN or American Fact Finder <https://ejscreen.epa.gov/mapper/http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed November 10, 2016.

2 - US census Bureau, American Community Survey 2010-2014. <https://ejscreen.epa.gov/mapper/http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed November 10, 2016.

3 - Environmental Protection Agency, EJSCREEN Report (Version 2016). <https://ejscreen.epa.gov/mapper/>. Accessed November 10, 2016.

* Data obtained via EJSCREEN approximation of City of Yakima Limits

- The proportion of age 65+ populations is 12.9% greater near the park than the City of Yakima.
- The proportion of owner occupancy of housing is 7.1% lower near the park than the City of Yakima
- Discovery Lab School demographic data indicates a high proportion of minority and low income populations.

Chesterley Park is accessible to populations with disabilities and contains facilities compliant with the Americans with Disabilities Act (ADA). Sidewalks leading to the park feature curb ramps with dome bump warnings. Handicap parking spots are present in both parking lots and the restroom contains wheelchair accessible toilets. The park includes paved pathways and off trail terrain is mowed and flat.

Table 4. Discovery Lab School Demographic Data.

Discovery Lab School	
Total Student Body	206
White	39.5%
Black	0.5%
American Indian or Alaska Native	1.5%
Asian	0.0%
Pacific Islander	0.0%
Hispanic or Latino of any race(s)	52.2%
Two or More Races	6.3%
Free or Reduced Price Meals	42.7%
Transitional Bilingual	17.0%

5.8.2 Replacement Park Area

Demographic data for Whitney Elementary School was analyzed because it was the closest public school to the Replacement Park, located 1 mile to the north (Table 5). Due to the distance to the school, demographic data from Whitney Elementary School may not represent demographics at the Replacement Park location. Based on the available data, the following comparisons have been drawn about the demographics in the vicinity of the Replacement Park:

- Per capita income for residents near the park is \$4,414 higher than in the City of Yakima
- The proportion of low income populations is 23% lower near the park than the City of Yakima.

- The proportion of households with income <\$15,000 is 9.8% lower near the park than the City of Yakima.
- The proportion of minority populations is 27% lower at the park than the City of Yakima.
- The proportion of age 65+ populations is 5.9% greater near the park than the City of Yakima.
- The proportion of owner occupied housing is 28.9% lower near the park than the City of Yakima
- Whitney Elementary School demographic data indicates a large proportion of minority and low income population, however this school is located a mile north of the park and may not accurately represent demographics for the Replacement Park area.

Table 5. Whitney Elementary School Demographic Data

Demographic	
Total Student Body	543
White	30.1%
Black	1.3%
American Indian or Alaska Native	1.3%
Asian	1.3%
Pacific Islander	0.0%
Hispanic or Latino of any race(s)	62.7%
Two or More Races	3.3%
Free or Reduced Price Meals	62.1%
Transitional Bilingual	24.9%

The replacement park property is undeveloped land with no public access. Since there are no publicly available facilities, there are no requirements for ADA compliant facilities. However, facilities constructed to satisfy the conversion will comply with ADA requirements.

5.9 Hazardous Materials

An investigation of existing and historic hazardous materials storage and spills is provided to identify and evaluate known toxic sites that may contribute to contamination, affect construction, or incur cleanup liability.

5.9.1 Chesterley Park Conversion Area

There is no record of existing or historic storage or use of hazardous materials on the Chesterley Park property. Toxic sites have, however, been identified in the vicinity. A 0.5-mile radius search of Department of Ecology databases identifies 12 current or historic toxic facilities surrounding the park area (Ecology 2016a). All toxic facilities are mapped in Figure 15 and listed in Table 6. The closest toxic facility, Simcoe Equipment, was located 325 feet to the north and has received a 'No Further Action' (NFA) in 2002 for voluntary cleanup action. NFAs are issued when it has been determined that the property meets cleanup requirements under the Model Toxics Control Act (MTCA). Four of the identified sites have received an NFA from the Washington Department of Ecology (Ecology). 6 of the 12 toxic sites included only underground storage tanks with no evidence of leaks or spills. Two sites, Marvin Gardens and Harvest Orchard Park Retirement, are toxic facilities that have started cleanup but not yet received an NFA.

Table 6. Toxic Facilities within One-Half Mile of Chesterley Park (Ecology 2016a).

Facility ID	Name	Address	Type	Status
6630501	FM Fuel Stop 486	1206 N 40th Ave Yakima, WA 98908	Underground Storage Tank	Active
537	Simcoe Equipment	3701 River Rd Yakima, WA 98902	Voluntary Cleanup Site, Underground Storage Tank	NFA
94672819	Smitty's Market & Delicatessen	3508 Fruitvale Blvd Yakima, WA 98902	Underground Storage Tank	Active
46459173	Arco 5721	3922 Fruitvale Blvd Yakima, WA 98902	Underground Storage Tank	Active
62562876	Triangle Sand & Gravel Co Inc	3411 Fruitvale Blvd Yakima, WA 98907	Underground Storage Tank	End Date 1/28/2000
51667834	Texaco Station 632320385	4001 Fruitvale Blvd Yakima, WA 98902	Voluntary Cleanup Site, Leaking Underground Storage Tank, Underground Storage Tank	NFA
55562971	REW Inc	1026 N 34th Ave Yakima, WA 98902	Underground Storage Tank	End Date 12/31/1999
4660794	Marvin Gardens	Hathaway Ave Yakima, WA 98902	Voluntary Cleanup Site, Independent Cleanup	Cleanup Started
34511835	Yakima Door Company	2920 River Rd Yakima, WA 98902	Underground Storage Tank	End Date 9/21/2000
37448244	Chandler House Site	701 N 39th Ave Yakima, WA 98902	Voluntary Cleanup Site	NFA
93321516	Landmark Care Center	710 N 39th Ave Yakima, WA 98902	Voluntary Cleanup Site	NFA
1431907	Harvest Orchard Park Retirement	620 N 34th Ave	Voluntary Cleanup Site, Independent Cleanup	Cleanup Started

5.9.2 Replacement Park Area

There is no record of existing or historic storage or use of hazardous materials on the Replacement Park property. However, toxic sites have been identified in the vicinity. A 0.5-mile radius search in the Department of Ecology databases identified 5 current or historic toxic facilities surrounding the park area (Ecology 2016a). Toxic properties are mapped in Figure 16 and listed in Table 7. All toxic sites were located on the north side of the airport, at least 1,800 feet away.

Table 7. Toxic Facilities within One-Half Mile of the Replacement Park (Ecology 2016a).

Facility ID	Name	Address	Type	Status
67958727	Ronald Hartoon	1606 S 36th Ave Yakima, WA 98902	Leaking Underground Storage Tank	NFA
46666512	Western Recreational Vehicles Inc	3401 W Washington Ave Yakima WA, 98903	Voluntary Cleanup Site, Independent Cleanup Site	NFA
27389546	Yakima City Airport	2300 W Washington Ave Yakima, WA 98903	Leaking Underground Storage Tank, Independent Cleanup Site	NFA
13654692	Structural Components Inc	3197 W Washington Ave Yakima, WA 98903	Underground Storage Tank	End Date 6/5/2008
92998881	Graham Equipment	3003 W Washington Ave Yakima, WA 98903	Leaking Underground Storage Tank	NFA

Figure 15. Chesterley Park Toxic Facilities - 0.5 Mile Radius

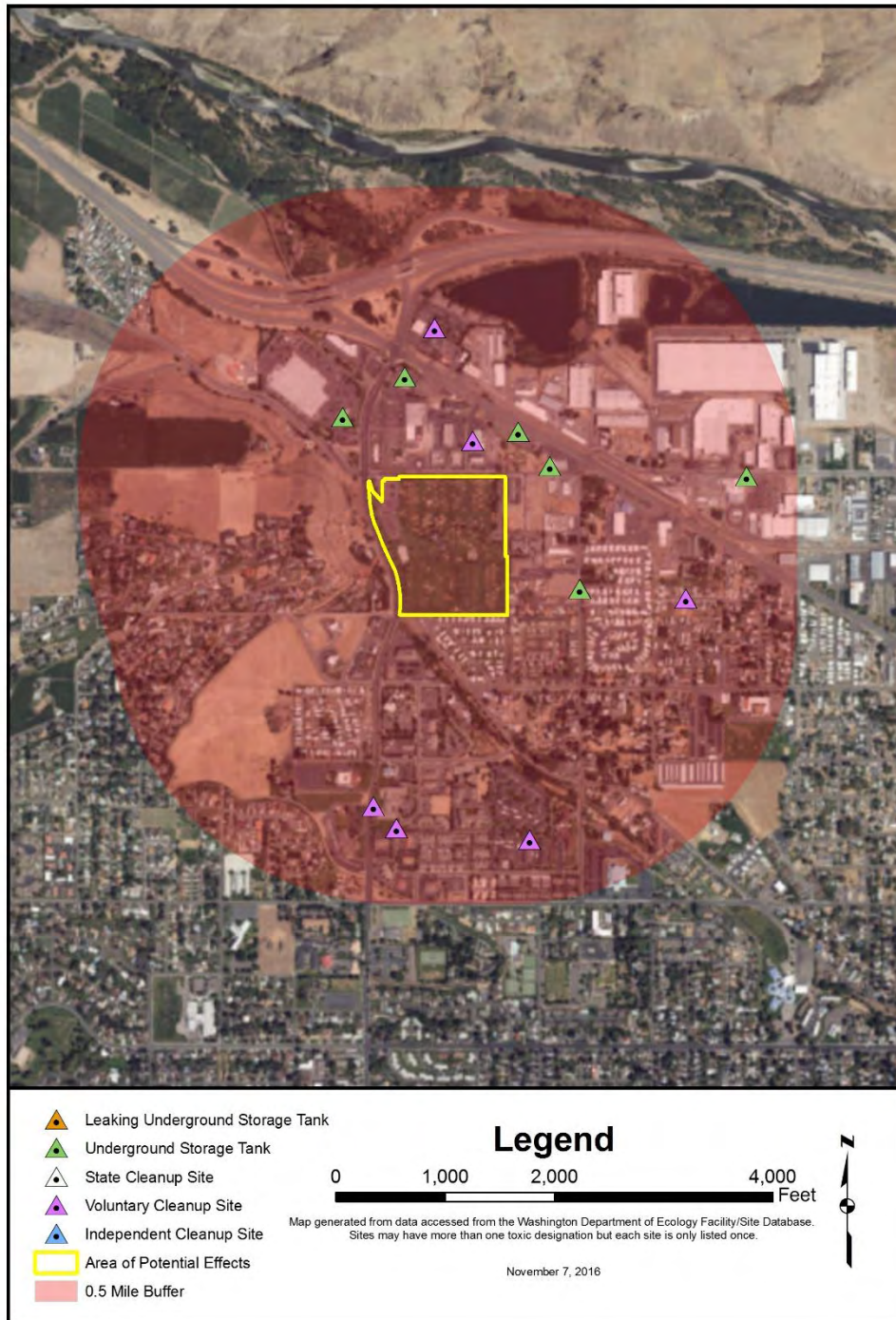


Figure 16. Replacement Park Toxic Facilities - 0.5 Mile Radius



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6. ENVIRONMENTAL IMPACT

This section discusses the direct and indirect impacts resulting from the 6(f)(3) conversion and construction of the replacement park. It is the purpose of this environmental assessment to address impacts associated with the 6(f)(3) conversion and the construction of the replacement park, but not post-conversion development that may or may not occur. Although development of the YMCA and aquatic center is an anticipated consequence of the conversion, it is not specifically a part of the conversion process and therefore is not a focus of this section. For the purpose of assessing potential environmental impacts, it is assumed that all land within the conversion area will be removed from the public recreation estate.

6.1 Land Use

Recreational resources removed from the public recreation estate at Chesterley Park are mitigated with the acquisition and construction of the Replacement Park, offering greater property value, greater land area, and superior recreational diversity and utility. This section discusses the effect of land use changes resulting from the conversion and implications on recreational resources.

6.1.1 Chesterley Park Conversion Area

6.1.1.1 Land Use and Zoning

The 6(f)(3) conversion at Chesterley Park removes federal protection from 5.59 acres of the park area, allowing for development of non-outdoor recreational uses. The proposed conversion will not include construction or change of land use within the Chesterley Park area as a part of the project. The soccer fields will remain open to the public until post-conversion construction begins. No zoning changes are proposed as a part of this project, however, future land use such as an aquatic center may require rezoning.

6.1.1.2 Recreation Resources

The 5.59-acre conversion will remove recreational resources from the public recreation estate including two soccer fields and open space in-between and around the soccer fields. Removing fields would reduce the capacity of the park to schedule field space and host tournaments or league games. The open space surrounding each field are thin strips that provide a sideline

and buffer between soccer fields. The open space is not of sufficient size to be used for activities other than those associated with soccer games such as benched teams, spectator area, or moving throughout the park.

Based on an analysis of hourly usage at soccer fields within Chesterley Park, the four remaining fields would have ample capacity to meet public demand. Data on daily usage of soccer fields per park has been provided for five years prior by the City of Yakima (Table 8). The fields are open for reservations from the months of March through November. The data indicates that even during the busiest month in the last five years, the average daily use of each field was only 2.6 hours per day. The five-year average was 0.6 hours per day, however, numerous fields have been closed for maintenance since 2012-2013 when the fields sustained damage. Peak season for the park is from April through September. During the peak season of the busiest year, the average daily use of each field was 1.7 hours per day. The fact that the soccer fields are underutilized suggests that there is little to no latent demand.

Table 8. Chesterley Park average and modeled daily soccer field rental usage from 2012-2016. Usage based on the currently existing five operable soccer fields shown in gray. Status-quo model shown in green; assumes three operable soccer fields and no change in park usage. Reduced-Attendance Model shown in yellow; assumes a 10% reduction in field attendance and three operable soccer fields. Data obtained from City of Yakima (D. Brown, personal communication, December 22, 2016).

Chesterley Rental Usage Estimates (hours per day)															
Month	2012			2013			2014			2015			2016		
March	2.2	3.6	3.3	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.0	0.0	0.0
April	1.7	2.9	2.6	0.4	0.7	0.6	0.5	0.8	0.7				0.0	0.1	0.0
May	1.5	2.5	2.2	2.1	3.5	3.1	0.7	1.2	1.1				0.1	0.1	0.1
June	1.4	2.3	2.1	2.0	3.4	3.0	0.5	0.8	0.7				0.0	0.0	0.0
July	1.1	1.8	1.6	1.5	2.5	2.3	0.5	0.8	0.7				0.3	0.5	0.4
August	2.6	4.4	3.9	2.0	3.3	3.0	0.4	0.6	0.6				0.0	0.1	0.1
September	1.8	2.9	2.6	1.7	2.8	2.5	0.5	0.8	0.7				1.0	1.7	1.5
October	0.0	0.1	0.0	0.1	0.2	0.1	0.2	0.3	0.3				0.0	0.0	0.0
November	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
Annual Mean	1.4	2.3	2.0	1.1	1.8	1.6	0.4	0.6	0.6	0.2	0.3	0.3	0.2	0.3	0.2

To maintain soccer fields at Chesterley Park, one field is taken out of commission each year for reseeding and removal of bald patches. The decommissioned field is rotated each year to continually maintain all fields. This would allow for a max of five operable fields each year. After conversion, only three would be open each year. Table 8 shows the modeled usage for Chesterley Park soccer fields based on a few assumptions. The Status-quo Model highlighted with green calculates post-conversion usage assuming three operable fields and field attendance is unchanged. The Reduced-Attendance Model highlighted with yellow calculates the post-conversion usage assuming three operable fields and a 10% reduction in attendance. The reduction in attendance is meant to reflect a conservative estimate based on the fact that

13% of current park usage is for tournament play and has a high probability of moving to the newer facilities at the SOZO Sports Center. Usage from non-adjacent schools and league play is also likely to move.

Average park usage for the busiest year, season, and month for existing and modeled conditions are summarized in Table 9. Conditions of peak attendance are analyzed to show that even by conservative estimates, the park will have additional capacity. These calculations indicate an increase of peak-year average daily usage from 1.4 to 2.1-2.3 hours when the number of fields are reduced. Daily peak season usage would increase from 1.7 to 2.5-2.8 hours per day. Daily usage during the busiest month would increase from 2.6 to 4-4.4 hours per day.

Table 9. Average hourly usage for the busiest year, season, and month for five years prior at Chesterley Park soccer fields for existing and modeled conditions.

Category	Existing Hourly Usage (hours/day)	Post-Conversion Status-Quo Model (hours/day)	Post-Conversion Reduced-Attendance Model (hours/day)
daily usage in peak-year	1.4	2.3	2.1
daily usage in peak-season	1.7	2.8	2.5
daily usage in peak-month	2.6	4.4	4.0

A large soccer complex is currently under development in the City of Yakima that will reduce the demand on existing soccer fields. The SOZO Sports Complex opened its first fields in the summer of 2016 and plans to feature 19 soccer and multisport fields once complete. It is one of the largest of its kind in the Pacific Northwest and will draw demand from other parks that offer a similar service. This will reduce the need for tournament and league space in Chesterley Park. With an expansion of soccer resources in the City of Yakima, the reduction of soccer fields at Chesterley Park will primarily have local consequences. Should fields at Chesterley Park fill up, teams would have to travel greater distances to alternate fields.

Due to poor conditions in Chesterley Park fields, tournaments have been moving to other locations. During 2012 and 2013, the tournament use accounted for 156 hours of field use per year, which dropped to 36 hours of use per year in 2015 and 2016 (D. Brown, personal communication, December 22, 2016). A reduction in the number of fields will allow for better maintenance by rotating every four years instead of six.

Based on the amount of current park usage, it is anticipated that the four remaining fields at Chesterley Park will be sufficient to meet the needs of the community. Even during the busiest

months, in the most conservative model, only 4.4 hours of average daily usage is anticipated. This works out to be about two to three games per day. The annual average daily usage during a busy year is anticipated to be 2.3 hours per day in the most conservative model; or about one to two games per day. The fields can be scheduled up to 16 hours per day and could operate at a higher capacity. While the removal of two fields represents a loss of recreational resources, it is anticipated to have little impact on the ability for populations to utilize those resources.

6.1.1.3 Circulation and Transportation

The 6(f)(3) conversion at Chesterley Park will have no adverse traffic and circulation impacts as no construction or land use changes are proposed. There are no post-conversion plans to remove the parking area. The City of Yakima will retain sufficient parking at Chesterley Park regardless of future development that may or may not occur in the conversion area. The conversion will not impact other modes of transportation such as walking, biking, or busing.

6.1.1.4 Aesthetics and Special Characteristics

The 6(f)(3) conversion will not alter the overall aesthetics since no construction is proposed. Once converted, the property may be used to develop buildings and additional park facilities.

6.1.2 Replacement Park Area

6.1.2.1 Land Use and Zoning

The Replacement Park would include 31.2 acres of 6(f)(3) protected land to compensate for the 5.59 acres removed from Chesterley Park. The vacant land will be developed into park facilities including the replacement of existing landscape with lawn area. Conceptual plans of park amenities include open space, natural area, picnic area, play grounds, trails, restrooms, and parking facilities. Since the parcel is currently zoned Light Industrial, park creation will eliminate the potential for future industrial development on the property. Much of the surrounding area is zoned for industrial, with ample undeveloped land for industries seeking a site location. A park is considered a Class-2 use within the M-1 Zone and will require additional administrative review. Development of the replacement park will require property acquisition as it is currently privately owned.

Parks provide a public service that is generally favorable to the community and typically increase neighborhood desirability and property values. The closest current city park is Randall Park, about $\frac{3}{4}$ miles northwest. The park creation is anticipated to improve community livability by increasing recreational opportunity.

6.1.2.2 Recreation Resources

The Replacement Park will benefit an underserved neighborhood by improving recreational opportunity. The park will feature 31.2 acres of open space, natural area, picnic area, managed fields, playgrounds, walking paths, restrooms, and parking facilities. It mitigates for the 6(f)(3) conversion at Chesterley Park by providing a significantly larger area, superior diversity of recreation, and greater recreational utility.

Open space will be maintained as lawn and allow for a multi-use area that can be enjoyed by park visitors for various activities. As the park is adjacent to the SOZO soccer fields, it will likely be used for pick-up soccer games or practice. Other potential uses may include picnicking, walking, jogging, running, lounging, pet walking, nature viewing, and outdoor play including non-competitive sports such as Frisbee or catch, etc. Open space provides an important function by allowing people to gather and recreate to their choosing. Picnic areas will be created in the open space and include picnic tables, trash cans, barbeques, and potentially picnic shelters.

Wetlands and floodways will remain in natural condition, providing habitat for birds and small mammals. These are important habitats that have been identified by the City of Yakima as critical areas that should be protected and preserved for the value and functions they provide. Birds have been observed in abundance in the area, particularly quails, red-winged blackbirds, magpies, and northern harriers. Retaining natural habitat will provide opportunity for wildlife viewing and birdwatching.

Trails will circle the edge of the property and connect to all parking lots. These can be used to provide access, walking and running opportunity, and handicap accessibility. On-leash pets will be allowed in the park. Sports teams from the surrounding soccer fields could use trails and open space for training and conditioning.

A playground will be constructed to provide recreation for younger park users. Restroom facilities will be constructed, providing flushable toilets, sinks, and wheelchair access. Parking facilities will be created in a size suitable for the needs of the park.

The Replacement park will provide a diversity of recreational resources well suited to needs of the community. It will feature the recreational resources identified in the City of Yakima Parks and Recreation Comprehensive Plan as the most desired and needed (determined by survey results). The top five needs were identified as neighborhood parks, open spaces, playgrounds, spray parks, and greenways/pathways (City of Yakima 2012). The project meets the mission of Yakima Parks and Recreation by promoting community leisure and recreational activities.

The Replacement Park would also be consistent with the State Comprehensive Outdoor Recreation Plan (SCORP) by providing activities with the high rate of participation including picnicking, barbequing, walking, wildlife viewing, playground use, jogging, and running (RCO 2013). The Replacement Park includes three of the top five activities with the greatest participation rates in Washington State. The project also fits within the recommendation of the SCORP to *'offer diverse outdoor recreation and opportunities'* and *'focus on increasing and/or improving recreation facilities and opportunities that support active recreation'* by creating new and diverse park resources in a neighborhood that did not previously have them. Open space and trails at the park support active recreation activities such as walking, jogging, and non-competitive sports.

6.1.2.3 Circulation and Transportation

Development of the Replacement Park is anticipated to increase traffic on local roads due to visitors coming to and from the park. Parking lots will be created at a sufficient size to meet the demand of the public. Existing roads are not heavily used and are capable of handling additional traffic volume.

It is anticipated that visitors will also access the park by walking, particularly from nearby neighborhoods and the adjacent SOZO Sports Complex. Once the replacement park is completed, bus routes will be developed to service the area.

6.1.2.4 Aesthetics and Special Characteristics

Aesthetics are a subjective attribute that depend on the perspective of the viewer. Construction at the Replacement Park will replace a relatively natural landscape with managed park area. The park will be designed to be visually appealing while providing the needed recreational resources. To those who prefer a maintained park area, the Replacement Park may be considered an aesthetic improvement. Others may prefer the existing natural area to a managed park. The design of the park includes a large area of natural setting including wetlands and wetland buffers that stretch over much of the property. The combination of

nature and park strikes a balance that may be appealing to those who prefer nature and those who prefer parkland. Ultimately, it cannot be concluded that aesthetics will be objectively improved or reduced, but rather characterized by a shift from natural area to park and open space.

6.2 Geological Resources

6.2.1 Chesterley Park Conversion Area

There will be no impacts to geological resources in the Chesterley Park conversion area as no construction activities are proposed.

6.2.2 Replacement Park Area

Clearing and grading at the Replacement Park will remove and/or mix surface soil and result in compaction from heavy machinery. Construction would require only shallow excavation for most of the project area and would result in negligible impacts to soil resources. A portion of the Replacement Park area is mapped as farmland of statewide importance; however, the Replacement Park is within the City of Yakima Urban Growth Area and is therefore not subject to review under the Farmland Protection Policy Act.

6.3 Water Resources

6.3.1 Chesterley Park Conversion Area

6.3.1.1 Surface Waters and Floodplains

There will be no impacts to surface waters or floodplains in the Chesterley Park conversion area as none are present on the property.

6.3.1.2 Wetlands

There will be no impacts to wetlands in the Chesterley Park conversion area since none are present on the property.

6.3.1.3 Groundwater

There will be no impacts to groundwater in the Chesterley Park conversion area as there are no proposed construction activities.

6.3.1.4 Stormwater and Water Quality

There will be no impacts to stormwater or water quality in the Chesterley Park conversion area as there are no proposed construction activities.

6.3.2 Replacement Park Area

6.3.2.1 Surface Waters and Floodplains

The Replacement Park contains FEMA-mapped floodplains and floodway. The project will not result in impacts to the floodplains or floodway, as there will be no net fill added in these areas.

6.3.2.2 Wetlands

Most of the wetlands will be retained as natural area, however minor impacts will be unavoidable. Interpretive trails will loop the park and cross wetlands in a few locations. The wetlands are linear in shape and would require only small impacts for trail crossings. Wetland buffers will be left primarily in natural condition but some impacts will be necessary for parking lots, trails, and other park facilities. Impacts to wetlands and buffers will be quantified and mitigated in compliance with the interagency Wetland Mitigation in Washington State Part 1: Agency Policies and Guidance and Part 2: Developing Mitigation Plans as revised. It will also comply with federal, state, and local regulations including the City of Yakima Critical Area Ordinance.

6.3.2.3 Groundwater

The replacement park will have no impacts to groundwater as much of the area will remain pervious. Recharge rates will be negligibly affected. Most of the runoff from new impervious surface will infiltrate into adjacent pervious land within the park area. No contamination is anticipated to result from the project that would impact groundwater.

6.3.2.4 Stormwater and Water Quality

Park construction will increase impervious surface area that may be associated with runoff to nearby waterbodies. These will include parking lots, trails, and picnic/restroom facilities. Impervious surfaces such as parking lots collect pollution from automobiles and airborne deposition that wash downstream during rain storms. The project is in an arid region with little overall rainfall that will primarily infiltrate to groundwater. The project will be consistent with the 2010 Yakima County Regional Stormwater Manual and utilize methods to minimize stormwater impacts.

Other surfaces such as trails and shelters are considered non-pollution generating as they are not associated with activities that produce pollution. In general, stormwater will infiltrate the ground before draining into surface waters. Water that drains into the large northern wetland will ultimately flow into Spring Creek as they share a surface water connection. However, lands directly surrounding the wetland will be primarily retained as natural area and are unlikely to contribute pollution.

Much of the property is within the 100-year floodplain and will carry runoff downstream during large flooding events. To mitigate these impacts and protect water quality, use of inorganic fertilizers and pesticides will be avoided, when possible, in the floodplains. Spring Creek is not a 303(d)-listed waterbody, but contamination is a concern downstream at Ahtanum Creek and the Yakima River which are both 303(d)-listed.

Runoff impacts associated with the project are anticipated to be less severe than would result from industrial land use, as the property is currently zoned for. All construction will comply with federal, state, and local water quality regulations and employ best management practices (BMPs) to minimize impacts to waterbodies.

6.4 Air Quality

6.4.1 Chesterley Park Conversion Area

The conversion at Chesterley Park is not anticipated to have any adverse impacts to air quality. Removing 6(f)(3) designation from the 5.59-acre conversion area will reduce the need for park maintenance activities such as mowing and trimming with motorized equipment which will result in a small reduction in emissions.

6.4.2 Replacement Park Area

Construction of the Replacement Park is anticipated to be responsible for a small increase in emissions. These will be generated in part from motorized maintenance equipment such as lawnmowers and trimmers that rely on fossil fuels. Additional emissions will result from vehicles entering, exiting, and idling in the parking lots and from trips to and from the park.

Temporary emissions will be generated during construction from sources including dust, heavy equipment, and motor vehicles etc. These would occur only during the construction phase, and all vehicles would meet local, state, and federal emissions standards. The impact will be insignificant compared to other local and regional emissions.

Air quality impacts associated with the project are anticipated to be lower than would be expected from the current zoned use of the property.

6.5 Noise

6.5.1 Chesterley Park Conversion Area

The 6(f)(3) conversion at Chesterley Park will result in a small decrease in noise by decreasing sound associated with soccer games and maintenance activities. Soccer games generate noise from loud vocalizations and whistles. Maintenance activities include lawn mowing and trimming.

6.5.2 Replacement Park Area

Noise generated from the Replacement Park will increase from preexisting conditions but remain low compared to nearby sources. The loudest anticipated noise resulting from the Replacement Park is the additional traffic driving in and out of the park area. Greater traffic along S 40th Ave will increase noise reaching nearby residences. The residences along S 40th Ave are the only sensitive receivers in the area, as the Replacement Park is bordered by airport and a Sports Complex in all other directions.

Additional increases in noise will result from maintenance activities such as mowing and trimming. Talking from visitors will add to the noise environment. Noise will also increase temporarily during the construction phase of the project.

Areas surrounding the Replacement Park currently experience elevated noise from the airport, existing traffic, and the SOZO Sports Complex. Any increase in noise associated with the Replacement Park is anticipated to be relatively minor compared to existing sources. Noise generated from the park is anticipated to be lower than would be expected from the industrial zoned use of the property.

6.6 Biological Resources

6.6.1 Chesterley Park Conversion Area

6.6.1.1 ESA-Listed Species

The conversion at Chesterley Park will have no effect on ESA-listed species since the project does not propose construction activities. Additionally, no ESA-listed species or habitat are present within the conversion area.

6.6.1.2 Plant and Animal Species of Concern

The conversion at Chesterley Park does not have any impacts to plant or animal species of concern since the project does not propose construction activities. Additionally, no plants and animals of concern are present within the conversion area.

6.6.1.3 Invasive Species

The conversion at Chesterley Park is not anticipated to influence the prevalence of invasive species. The area is primarily maintained as lawn and does not contain invasive species other than naturalized weeds interspersed in the lawn area.

6.6.2 Replacement Park Area

6.6.2.1 ESA-Listed Species

The conversion at the Replacement Park will have no effect on ESA-listed species since no ESA-listed species or habitat are present within the conversion area.

6.6.2.2 Plant and Animal Species of Concern

Park construction on this property will remove habitat for the Townsend's ground squirrel. Should any Townsend's squirrel be present onsite, clearing and grading activities will disrupt burrows and available food. Some habitat may remain near wetlands, but it would be fragmented and flood prone. Habitat loss is a consequence of nearly all land development. Townsend's ground squirrels can live in habitat found throughout the Columbia River basin and need not rely on vacant lots within urban areas. Since the land is currently zoned Light Industrial, the proposed park is anticipated to be less impactful than the zoned use of the site. Project actions are not anticipated to jeopardize the continuing existence of this species.

6.6.2.3 Invasive Species

The Replacement Park area is almost entirely populated by non-native invasive species. These will be largely removed during construction and replaced with a lawn grasses. Regular mowing and trimming will keep the grasses low and prevent seed production. Removal of the invasive species will reduce the coverage and proliferation of invasive species in the area.

6.7 Cultural Resources

6.7.1 Chesterley Park Conversion Area

Since no construction will occur in the Chesterley Park area, there will be no direct impacts to cultural resources. However, the removal of 6(f) protection is an adverse effect that can impact cultural resources if present. This site has been previously developed to create the park, and cultural resources were not found during that time. Based on the absence of archaeological materials in the vicinity and distance to historical sites it is unlikely that the proposal will have any impact on cultural resources.

6.7.2 Replacement Park Area

Based on the proximity to other known archeological and cultural sites, and absence of cultural materials found during the survey, it is unlikely that park development will have an impact on cultural resources. Should archaeological deposits or materials be encountered during development of the park, work will be halted immediately and DAHP will be notified. In the event of inadvertent discovery of human remains, all work will stop and law enforcement will be contacted.

6.8 Environmental Justice, Socioeconomics, and Disability Accessibility

The conversion will result in a net increase of park area and recreational resources that benefit all community members including minorities and low income populations. However, it will also result in a shift of recreational resources from an area with a greater proportion of low income and minority populations to an area with a lower proportion of low income and minority of populations. The area directly surrounding Chesterley Park is 35% minority and 55% low income. The area directly surrounding the replacement park is 21% minority and 29% low income. This highlights a potential disproportionate impact to environmental justice populations. However, park data indicates that the remaining four fields at Chesterley Park are capable of handling existing levels of soccer demand. Impacts to low income and minority populations are identified and discussed in this section. The analysis provided below documents that impacts to environmental justice populations will not be disproportionately high and adverse.

6.8.1 Chesterley Park Conversion Area

6.8.1.1 Environmental Justice

The loss of recreation from the public estate is the primary environmental justice impact resulting from the conversion at Chesterley Park. This is a non-discriminatory action that will impact all populations, not just minorities and low income demographics. Chesterley Park is near a highway and draws visitors from throughout the City of Yakima. The loss of soccer fields therefore impacts populations outside of the direct project vicinity.

Based on the analysis provided in Chapter 6.1.1.2 of this report, the remaining four soccer fields at Chesterley Park will be adequate to meet the demand of the community. Although teams scheduling the soccer fields may be inconvenienced by having fewer times available, the field can easily accommodate current levels of usage. It is a possibility that the fields will fill up during peak times, however there is ample room on non-peak days for teams to play if needed.

Should teams relocate to other fields, the increased travel will most impact populations that rely on public transit and lack personal vehicles. This will be largely mitigated by a new bus route scheduled to service the replacement park and SOZO Sports Complex. The new route will be made available at around the time the facility is completed. Those relying on public transit will experience longer travel times, but will still have access to other fields.

The impact of reduced soccer fields at Chesterley Park is alleviated by the addition of new fields under construction for the SOZO Sports Complex. While it is not associated with this project, the development will draw demand from other soccer fields and reduce the impact of the conversion at Chesterley Park. The new supply of soccer fields provides an opportunity to diversify recreational opportunities in other areas, which is why a direct replacement is not proposed. Schools and leagues represent a portion of field use at Chesterley Park that will in part move to the SOZO Sports Complex once complete. This will reduce demand to Chesterley Park soccer fields, thereby allowing nearby populations a greater proportion of field use.

There will be no disproportionately high and adverse impact to minority or low income population because removal of the park resources at Chesterley Park will have an insignificant impact on the ability for park visitors to use those resources.

6.8.1.2 Socioeconomics

The effect of the 6(f)(3) conversion at Chesterley Park on the economy will be minor due to the scale of the project relative to the regional factors. The conversion will reduce recreational opportunity from the park, but most the park area will remain open. No employment will be created, and maintenance workloads would decrease slightly.

6.8.1.3 Accessibility for Peoples with Disabilities

The 6(f)(3) conversion will not reduce the amount of handicapped parking spaces or reduce accessibility in any way. The City of Yakima will provide adequate access for people with disabilities to Chesterley Park regardless of future development that may or may not occur.

6.8.2 Replacement Park Area

6.8.2.1 Environmental Justice

Minorities and low income populations are present in the Replacement Park area at a lower proportion than Chesterley Park. The population density is also lower at the Replacement Park. This highlights a potential disproportionate adverse impact to minority populations as park resources are being moved from areas with large low minority and low income populations to area with low minority and low income populations. While the Replacement Park area has a smaller low income population, it also has a lower per capita income. The Replacement Park area is not wealthier overall than the Chesterley Park area.

It is anticipated that the Replacement Park area will be used heavily by SOZO Sports Center visitors. This will shift the demographics of actual park users to more closely resemble the overall City of Yakima rather than just the direct park vicinity. Therefore, the amount of low income and minority populations may be higher than is represented in the area demographics obtained from EJSCREEN reports.

The Replacement Park provides a net increase in park area and recreational resources that will benefit all populations, including low income and minority demographics. All park activities at the Replacement Park will be free, thereby providing greatest benefit to low income demographics. As the location is currently underserved, it will provide park facilities to a population that has historically had little or no park access.

The park area and recreational resources provided by the Replacement Park are superior to those removed at Chesterley Park. The project will result in two parks, serving two communities instead of one. Populations near Chesterley Park will experience an inconvenience, however, populations around the Replacement Park will have an entirely new park area with superior recreational opportunity. Although the proportion of minority and low income populations are lower at the Replacement Park than at Chesterley Park, they are present in the area and will directly benefit from park creation.

Impacts associated with construction (such as noise, air quality, etc.) of the Replacement Park will impact all populations equally. Minority and low income populations will not be disproportionately impacted from construction of the Replacement Park. Both minorities and low income populations will benefit from additional park facilities and resources while experiencing negligible or very minor impacts to access to recreational access at Chesterley Park.

6.8.2.2 Socioeconomics

Development of the Replacement Park is anticipated to provide short term employment for the construction phase and economic stimulus to the community. Construction jobs are typically well paying middle class positions. Stimulus will be added by the boost to local businesses including hotels, stores, restaurants, etc.

Additional long term employment will be created to fill maintenance positions that keep the park operable. These will include duties such as lawn care, trash and restroom cleanup, and gardening. Management requirements would increase the workload of City of Yakima staff and may provide the impetus for new hiring.

6.8.2.3 Accessibility for Peoples with Disabilities

The Replacement Park will provide access to people with disabilities including handicap parking, ADA compliant curb ramps, paved low slope trails, and handicap restrooms. The park will be compliant with all federal, state, and local regulations regarding accessibility for peoples with disabilities.

6.9 Hazardous Materials

6.9.1 Chesterley Park Conversion Area

The 6(f)(3) conversion will have no effect on toxic or hazardous materials since no construction activity is proposed. Of the 12 identified toxic facilities within a 0.5-mile radius, 6 are non-leaking underground storage tanks that have not been linked to any contamination. An additional 4 sites have received an NFA, and have been cleaned to MTCA standards. Two remaining sites have started cleanup, but not yet received an NFA. These two sites are Marvin Gardens (FID #4660794) and Harvest Orchard Park Retirement (FID #1431907). Marvin Gardens contains contaminants including arsenic and priority pollutant metals and is located over 1,500 feet east of the park. Harvest Orchard Park Retirement contains contaminants including arsenic and unspecified pesticides and is located over 2000 feet southeast from the park.

A 2015 literature review of plume characteristics found that the median length of UST plumes was 132 feet (Newell 2015). Considering the proximity of contaminated sites to the park, it would be very unlikely that contaminated soils or groundwater will be encountered.

6.9.2 Replacement Park Area

There are five identified toxic facilities within a 0.5-mile radius of the Replacement Park. Of these, four have received an NFA. The remaining site was a non-leaking underground storage tank with an end date of 2008. The closest site is the Western Recreational Vehicles Inc, located over 1,800 feet to the north.

Considering the proximity of contaminated sites to the park and their cleanup status, it would be very unlikely that contaminated soils or groundwater will be encountered.

Park activities will include motor vehicle operations for maintenance such as lawn mowers and trimmers that could potentially result in a small spill. Parked vehicles add to this risk. Overall

the risk associated with these activities is relatively low, as the severity of any such event would be small. During the construction phase, heavy equipment will be operated onsite. A Spill Prevention Control, and Countermeasure (SPCC) plan will be developed to prevent contamination from inadvertently being released during construction.

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7. CUMULATIVE EFFECTS

Cumulative effects are effects on the environment which result from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR § 1508.7). Cumulative effects analysis is a NEPA requirement to address issues that may arise in combination with other projects at the local, regional, or global level.

Project related emissions, while insignificant by themselves, contribute to significant regional air quality impacts and global climate change. Both parks are within a PM₁₀ maintenance area for which fossil fuel emissions are a large factor. Yakima populations have been growing steadily since the 1800's and are anticipated to increase in the future. A trend of increased urbanization and development will exacerbate air pollution issues. The small amount of emissions generated from the park are not anticipated to produce a measurable impact on air quality or climate change. Emissions generated are anticipated to be at a lower amount than an industrial use as the property is currently zoned for.

Water quality impacts from the project are insignificant but contribute to an urban matrix of impervious surface. Ahtanum Creek and the Yakima River are downstream 303(d)-listed waterbodies that receive pollution from project runoff entering Spring Creek. No project activity would produce a measurable difference in water quality, as it will be consistent with the 2010 Yakima County Regional Stormwater Manual. Water quality impacts are anticipated to be less than would otherwise be produced at an industrial use as the property is currently zoned for.

No other cumulative impacts have been identified.

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8. MITIGATION MEASURES

The project mitigates for 6(f)(3) conversion at Chesterley Park with the creation of the Replacement Park. Recreational resources removed from the 5.59-acre conversion area at Chesterley Park will be replaced with 31.2 acres of new park area. The replacement park adequately compensates for park resources by providing a property with greater area, greater assessed value, and greater recreational utility. It adds to an underserved community and results in two viable park units instead of one.

Environmental impacts associated with development of the Replacement Park will be mitigated per the NEPA mitigation sequence including avoidance, minimization, restoration, reducing over time, and compensation (40 CFR § 1508.20). Construction impacts will be minimized using BMPs to prevent or minimize inadvertent environmental harm, particularly in regards to stormwater impacts. These will include at minimum silt fences or straw wattles to reduce sedimentation and turbidity impacts to downstream waterbodies.

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9. COORDINATION AND CONSULTATION

9.1 Agencies and Personnel Consulted

Agencies consulted for the writing of this environmental assessment can be viewed in the following table.

Table 10. Agencies and Personnel Consulted.

Name	Organization	Position
Scott Shafer	City of Yakima Public Works	Public Works Director
Brett Sheffield	City of Yakima Public Works	Chief Engineer
Joan Davenport	City of Yakima Community Development	Community Development Director

9.2 Public Involvement

The public has been involved throughout the planning process in both the features and location of the aquatic center and in the amenities and location of the Replacement Park. To assess community priorities for the features and location of the aquatic center, the Aquatic Advisory Committee was assembled by members of the public, including individuals and experts having special interests in aquatic resources. The committee was composed of members with diverse aquatic backgrounds and expertise and were tasked to find a solution that best meets the needs of the entire City of Yakima population. They were central to determining the site location and features of the proposed aquatic center, including alternatives analysis and identifying the preferred alternative.

Several Parks Commission meetings, City Council Meetings, and study sessions were held to involve the public in the 6(f)(3) conversion process. These allowed the opportunity for the public to comment on plans for both the aquatic center and Replacement Park. All public comments were given consideration when deciding on project outcomes.

Planning of the Replacement Park was consistent with the goals and objectives of the *City of Yakima Parks and Recreation Comprehensive Plan*. The comprehensive plan relied in part on public surveys to guide the agency direction and identify community needs. This project provides recreational resources consistent with the identified needs of the community.

This project complies with the State Environmental Policy Act (SEPA) and National Environmental Policy Act (NEPA) review process. These processes involve disclosing proposed

actions, their potential impacts, and identifies mitigation measures as necessary to avoid and minimize expected impacts. This document will be made available to the public and all comments within the 30-day comment period will be considered.

Intergovernmental review of this project includes review of this environmental assessment by the City of Yakima, the Washington State Recreation and Conservation Office, and the National Park Service. The RCFB will consider this proposal in a board meeting and provide additional opportunity for public comment. Additional interagency review includes all reviews triggered by NEPA and SEPA, and by all agencies requiring permits for project actions. A list of anticipated permits can be seen in Chapter 10.

10. REQUIRED PERMITS AND APPROVALS

Work activities related to the conversion process are anticipated to trigger certain permitting and approval requirements outlined in Table 11.

Table 11. Required Permits and Approvals.

Agency	Permits and Approvals
National Park Service / Recreation and Conservation Office	NEPA Review
Army Corps of Engineers	Section 404 Permit
Washington Department of Fish and Wildlife	Hydraulic Project Approval
Washington Department of Ecology	Section 401 Water Quality Certification NPDES Construction Stormwater General Permit
City of Yakima	SEPA Review Critical Area Ordinance

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11. LIST OF PREPARERS & REVIEWERS

Table 12. List of Preparers.

List of Preparers			
Name	Organization	Position	Education
Samuel Payne	Widener & Associates	Environmental Scientist	BS Environmental Science
Jason Cade	Widener & Associates	Biologist	MS Biology
Ross Widener	Widener & Associates	Project Manager	BS Engineering
Christina Neff	Widener & Associates	Biologist	BS Environmental Science

Table 13. List of Reviewers.

List of Reviewers		
Name	Organization	Position
Brett Sheffield	City of Yakima Public Works	Chief Engineer
Myra Barker	Washington State Recreation and Conservation Office	Compliance Specialist
Heather Ramsay	National Park Service	Outdoor Recreation Planner

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APPENDIX A – ENVIRONMENTAL SCREENING FORM FOR CHESTERLEY PARK

A. ENVIRONMENTAL RESOURCES Indicate potential for adverse impacts. Use a separate sheet to clarify responses per instructions for Part A on page 9.	Not Applicable- Resource does not exist	No/Negligible Impacts- Exists but no or negligible impacts	Minor Impacts	Impacts Exceed Minor EA/EIS required	More Data Needed to Determine Degree of Impact EA/EIS required
1. Geological resources: soils, bedrock, slopes, streambeds, landforms, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sound (noise impacts)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Water quality/quantity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Stream flow characteristics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Marine/estuarine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Floodplains/wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Land use/ownership patterns; property values; community livability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Circulation, transportation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Plant/animal/fish species of special concern and habitat; state/federal listed or proposed for listing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. Unique ecosystems, such as biosphere reserves, World Heritage sites, old growth forests, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Unique or important wildlife/ wildlife habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Unique or important fish/habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Introduce or promote invasive species (plant or animal)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Recreation resources, land, parks, open space, conservation areas, rec. trails, facilities, services, opportunities, public access, etc. <i>Most conversions exceed minor impacts. See Step 3.B</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
16. Accessibility for populations with disabilities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Overall aesthetics, special characteristics/features	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Historical/cultural resources, including landscapes, ethnographic, archeological, structures, etc. Attach SHPO/THPO determination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Minority and low-income populations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Energy resources (geothermal, fossil fuels, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Other agency or tribal land use plans or policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Land/structures with history of contamination/hazardous materials even if remediated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Other important environmental resources to address.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B. MANDATORY CRITERIA If your LWCF proposal is approved, would it...	Yes	No	To be determined
1. Have significant impacts on public health or safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation, or refuge lands, wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (E.O. 11990); floodplains (E.O 11988); and other ecologically significant or critical areas.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA section 102(2)(E)]?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office.(Attach SHPO/THPO Comments)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Reviewers

The following individual(s) provided input in the completion of the environmental screening form. *List all reviewers including name, title, agency, field of expertise. Keep all environmental review records and data on this proposal in state compliance file for any future program review and/or audit. The ESF may be completed as part of a LWCF pre-award site inspection if conducted in time to contribute to the environmental review process for the proposal.*

Samuel Payne, Environmental Scientist, Widener & Associates

Brett Sheffield, Chief Engineer, City of Yakima Public Works

The following individuals conducted a site inspection to verify field conditions.

List name of inspector(s), title, agency, and date(s) of inspection.

Ross Widener, Project Manager, Widener & Associates: 12/15/16

APPENDIX B – ENVIRONMENTAL SCREENING FORM FOR REPLACEMENT PARK

A. ENVIRONMENTAL RESOURCES Indicate potential for adverse impacts. Use a separate sheet to clarify responses per instructions for Part A on page 9.	Not Applicable- Resource does not exist	No/Negligible Impacts- Exists but no or negligible impacts	Minor Impacts	Impacts Exceed Minor EA/EIS required	More Data Needed to Determine Degree of Impact EA/EIS required
1. Geological resources: soils, bedrock, slopes, streambeds, landforms, etc.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Sound (noise impacts)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Water quality/quantity	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Stream flow characteristics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Marine/estuarine	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Floodplains/wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Land use/ownership patterns; property values; community livability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Circulation, transportation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Plant/animal/fish species of special concern and habitat; state/ federal listed or proposed for listing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Unique ecosystems, such as biosphere reserves, World Heritage sites, old growth forests, etc.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Unique or important wildlife/ wildlife habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Unique or important fish/habitat	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Introduce or promote invasive species (plant or animal)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Recreation resources, land, parks, open space, conservation areas, rec. trails, facilities, services, opportunities, public access, etc. <u>Most conversions exceed minor impacts. See Step 3.B</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Accessibility for populations with disabilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Overall aesthetics, special characteristics/features	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Historical/cultural resources, including landscapes, ethnographic, archeological, structures, etc. Attach SHPO/THPO determination.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Socioeconomics, including employment, occupation, income changes, tax base, infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Minority and low-income populations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Energy resources (geothermal, fossil fuels, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Other agency or tribal land use plans or policies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Land/structures with history of contamination/hazardous materials even if remediated	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. Other important environmental resources to address.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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B. MANDATORY CRITERIA If your LWCF proposal is approved, would it...	Yes	No	To be determined
1. Have significant impacts on public health or safety?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Have a direct relationship to other actions with individually insignificant, but cumulatively significant, environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places, as determined by either the bureau or office.(Attach SHPO/THPO Comments)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. Violate a federal law, or a state, local, or tribal law or requirement imposed for the protection of the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Limit access to and ceremonial use of Indian sacred sites on federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area, or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Samuel Payne, Environmental Scientist, Widener & Associates.

Brett Sheffield, Chief Engineer, City of Yakima Public Works

The following individuals conducted a site inspection to verify field conditions.

List name of inspector(s), title, agency, and date(s) of inspection.

Samuel Payne, Widener & Associates, 2/19/16, 3/14/16, 4/25/16, 10/18/16.

APPENDIX C – PHOTOGRAPHS

Chesterley Park



Photo 1. Chesterley Park entrance sign (in conversion area).



Photo 2. Chesterley Park soccer fields (not in conversion area).



Photo 3. Chesterley Park soccer field (in conversion area).



Photo 4. Chesterley Park handicap parking with restroom facility in the background (partially in conversion area).



Photo 5. Chesterley Park skate park (not in conversion area).



Photo 6. Chesterley Park play equipment (not in conversion area).

Replacement Park



Photo 7. View facing southwest from the floodway during spring.



Photo 8. View south from Spring Creek Road during winter.



Photo 9. View southwest of open fields in the Replacement Park during spring.



Photo 10. View southeast of open fields in the Replacement Park during spring.



Photo 11. View south of the large wetland during fall.



Photo 12. View south of large ditch on the west side of the site during spring.

APPENDIX D – CULTURAL RESOURCE ASSESSMENT

CULTURAL RESOURCES REPORT COVER SHEET

Author: Garth Baldwin, Jennifer Chambers, and Choya Davis

Title of Report: Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington

Date of Report: April 20, 2017

County(ies): Yakima Sections: 15 and 34 Township: 13N Range: 18E

Quad: Yakima West Acres: 36.79

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:

- **Submission of PDFs is required.**
- **Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.**
- **Please check that the PDF displays correctly when opened.**



DRAYTON ARCHAEOLOGY

Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington



Prepared by:

Garth L. Baldwin, M.A., RPA
Jennifer Chambers, M.S.
and Choya Davis, M.A.

Prepared For:

Widener & Associates
10108 32nd Avenue West, Suite D
Everett, Washington 98204

Drayton Archaeology Report: 0117A

April 20, 2017

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Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington

Author: Garth L. Baldwin, Jennifer Chambers and Choya Davis
Date: April 20, 2017
Location: Yakima County, Washington
USGS Quad: Yakima West, WA (1985), 7.5-minute quadrangle
Legal: Township 13 North, Range 18 East, Sections 15 and 34, Willamette Meridian

SUMMARY

Drayton Archaeology (DA) contracted with Widener & Associates to conduct a cultural resources assessment for the RCO Conversion at Chesterley Park Project (the project) located in Yakima, Yakima County, Washington. The project proposes to remove federal 6(f)3 protection from 5.59 acres of Chesterley Park and construct a new 31.2-acre replacement park. The project is subject to section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that federal agencies having direct or indirect jurisdiction over a proposed project (e.g. an undertaking) must consider the effect of the undertaking on historic properties that are or may be eligible for the National Register of Historic Places (NRHP).

DA's cultural resources assessment for this project consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area of low probability for historic properties. Field investigation included pedestrian survey, visual reconnaissance and subsurface testing of the Replacement Park Area. A brief site visit was made to Chesterley Park; no subsurface testing conducted.

No artifacts, features, or potentially eligible historic properties were encountered in the Replacement Park Area portion of the APE. As such, DA recommends a determination of "No Historic Properties Affected" for the Replacement Park Area portion of the APE. DA further recommends that if development of the Chesterley Park Conversion Area is to include ground disturbing activities that field investigation be adequately conducted to ensure that no potential buried cultural resources are adversely affected.

REGULATORY CONTEXT

This cultural resources assessment was conducted, in part, to satisfy regulatory requirements for section 106 of the National Historic Preservation Act (NHPA) and the implementing regulations in 36 CFR Part 800. Section 106 requires Federal agencies take into account the effects of their undertakings on historic properties. A historic property is typically aged 50 years or older and is defined in 36 CFR part 800.16(l)(1) as follows:

... any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes

properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

The procedures under section 106 generally require the Federal agency involved in the undertaking to identify the area of potential effect (APE), inventory any historic properties that may be located within the APE, and determine if the identified historic properties located within the APE may be eligible for listing on the NRHP. An APE is defined in 36 CFR 800.16(d), as follows:

... the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

If NRHP-eligible historic properties are identified within the APE, then potential adverse effects to the historic properties must be assessed and a resolution of adverse effects must be recommended. Under section 106, the responsible Federal agency must, at a minimum, consult with and seek comment from the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO), as applicable, and consult with any affected or potentially affected Native American Tribe(s).

AREA OF POTENTIAL EFFECTS AND UNDERTAKING

The RCO Conversion at Chesterley Park Project is located in Yakima, Yakima County, Washington (Figure 1). The City of Yakima proposes to transfer federal 6(f)3 protection (under the Land and Water Conservation Fund Act [LWFC]) from 5.59 acres at Chesterley Park to a new 31.2-acre park (hereafter referred to as the Replacement Park). There will remain at Chesterley Park 26.4 acres subject to LWCF requirements. Chesterley Park is an established park located at River Road and N 40th Avenue. The Replacement Park Area (parcel no. 18133442002) is located southwest of the Yakima Airport between S 40th Avenue and S 36th Avenue and is currently undeveloped. Chesterley Park is located within the legal geographic area of Township 13 North; Range 18 East; Section 15. The Replacement Park is located within the legal geographic area of Township 13 North; Range 18 East; Section 34. The total area of the APE is 36.79 acres. It is understood that all construction and staging will occur within the defined APE.

The conversion will allow for construction of a combined YMCA and City of Yakima aquatic center (Figures 2). The Replacement Park Area will be developed into a park featuring open space, picnic areas, walking paths, natural areas, playgrounds, restrooms, and parking facilities (Figures 3-4). This will require ground disturbing activities including clearing and grading, construction of parking lots and trails, and construction of restrooms and picnic shelters. The maximum depth of excavation for this project will be three feet for construction of the Replacement Park.

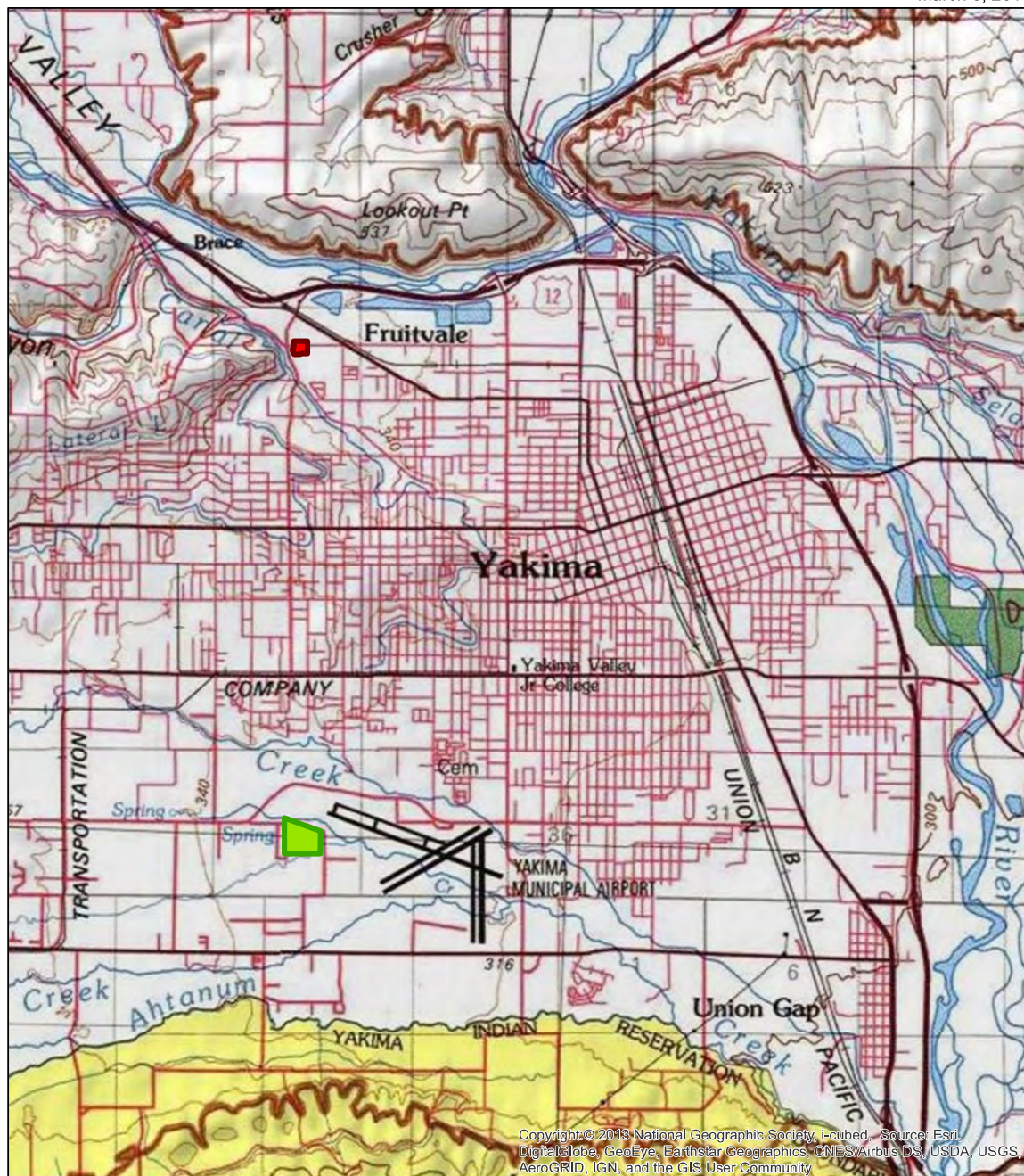


Figure 1. Vicinity Map

- Chesterley Park Conversion Area
- Replacement Park Area

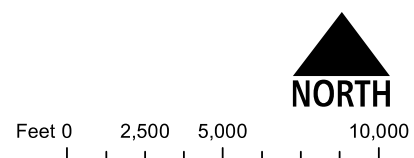


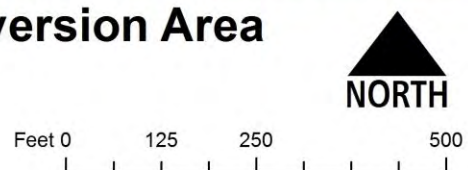


Figure 1. Portion of the USGS (1985) Yakima West, WA topographic quadrangle map detailing the APE for the RCO Conversion at Chesterley Park Project (map courtesy of Widener & Associates).



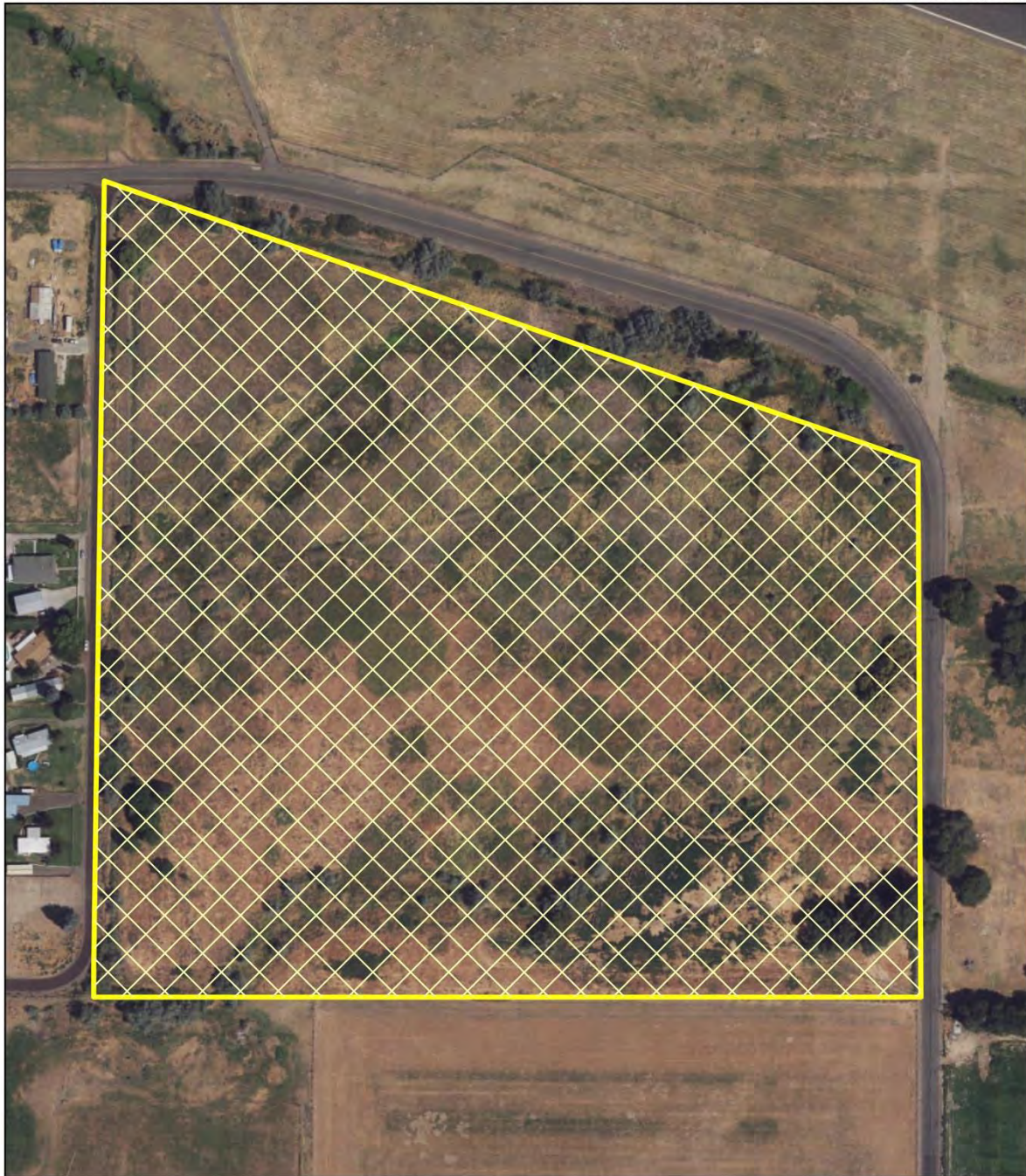
Figure 2. Chesterley Park Conversion Area

-  Conversion Area - Future Aquatic Center and Parking
-  Approximate 6(f) Protected Park Boundary



Disclaimer: Conversion areas and park boundary layers are a close approximation but may differ slightly from the legal site boundary.

Figure 2. The Chesterley Park Conversion Area portion of the APE (Figure courtesy of Widener & Associates).



 APE

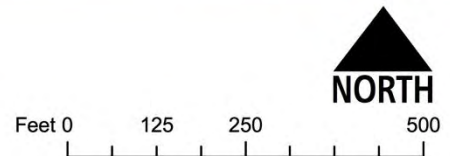


Figure 3. The Replacement Park Area portion of the APE (Figure courtesy of Widener & Associates).

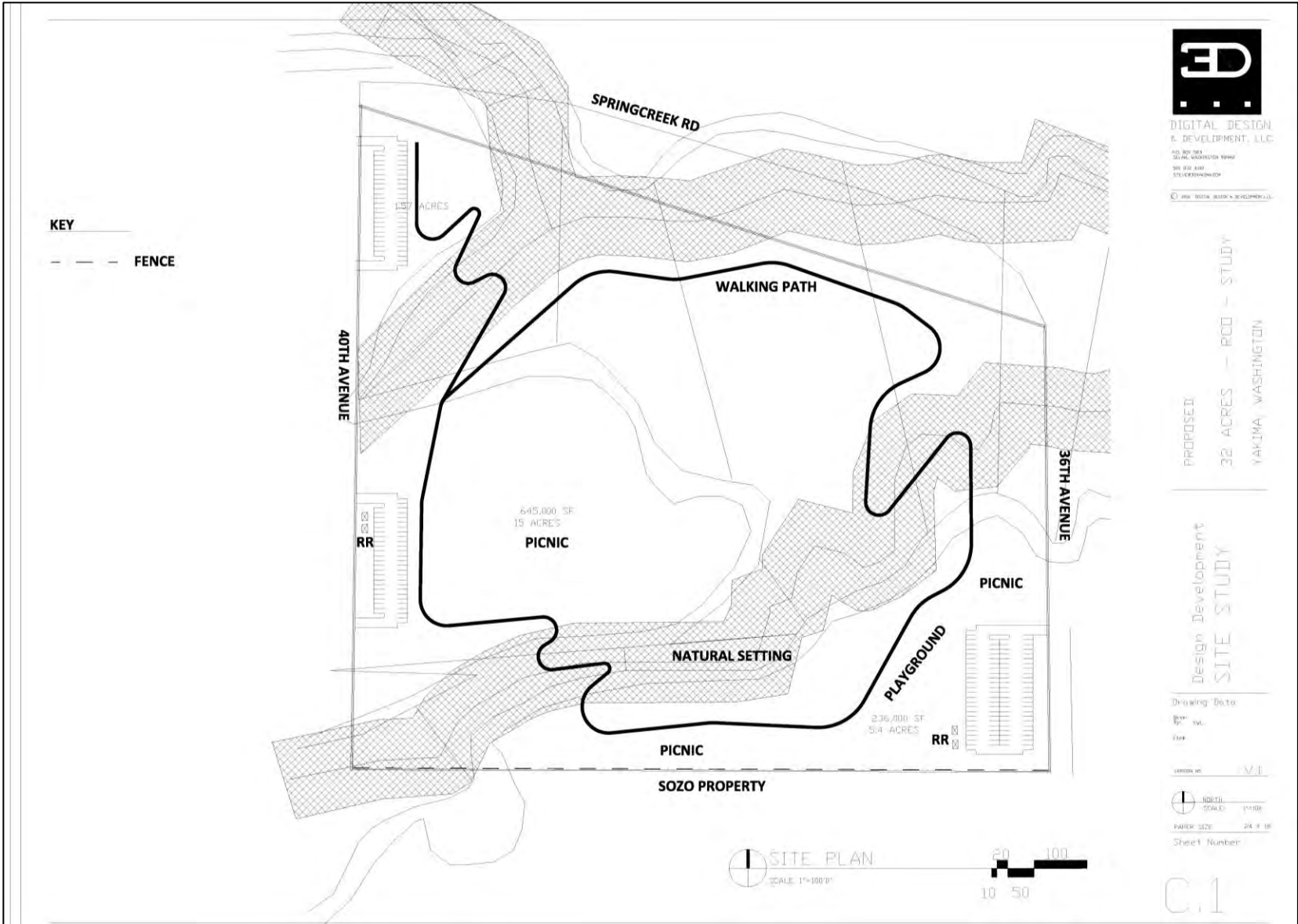


Figure 4. Proposed plans for the Replacement Park Area.

BACKGROUND REVIEW

Determining the probability for historic properties to be present within the APE was based largely upon review and analysis of past environmental and cultural contexts and previous cultural resource studies and sites. This included review of project files; local geologic data to better understand the depositional environment; historic maps; archaeological, historic, and ethnographic records made available on the Washington Information System for Architectural and Archaeological Records Data (WISAARD) database; and selected published local historic records.

Environmental Context

The APE is located in Yakima County, Washington. Yakima is located within the Columbia River Plateau (or Columbia Basin) physiographic province. The Columbia River Plateau is a broad basin that formed during the Miocene as flood basalts erupted from long fissures and spread out over the land (Baker et al. 1991; Hooper 1982). Hooper (1982) estimates that more than 200,000 km³ of lava flowed over the Columbia Basin between 17 and 6 million years ago. As the basalt flowed out and covered the land, the earth's crust gradually sank, and a large basin was formed. The basalts in the area have been folded into very large anticlines that strike east-west to southeast-northwest (Lasmanis 1991). In some areas, the basalt is overlain with alluvial gravels deposited during the Pliocene, glacial outwash and wind-blown loess deposited during the Pleistocene, and/or Holocene alluvium (Baker et al. 1991, Lasmanis 1991).

According to the United States Department of Agriculture, Natural Resource Conservation Service (USDA NRCS), soils in the Chesterley Park Conversion Area are derived of Ashue loams, which are typically located on terraces and derived of alluvium. Soils in the Replacement Park Area have been mapped as consisting primarily of Toppenish silt loam, track loam, and Kittitas silt loam. Toppenish silt loams, track loams and Kittitas silt loams are typically located on flood plains and are derived of alluvium.

Prior to historic settlement, the vegetation in the APE would have been typical of the *Artemisia tridentata* zone (Franklin and Dyrness 1973:44). This shrub-steppe zone is characterized by bunchgrasses and sagebrushes, vegetation typical of the upland deserts environment in the rain shadow of the Cascade Mountains. The region is arid to semiarid with warm summers, very cold winters, and limited precipitation.

Cultural Context

Precontact occupation of the Columbia Basin has been well summarized in regional literature over the past several decades (e.g. Ames et al. 1998; Browman and Munsel 1960; Daugherty 1962; Dumond and Minor 1983). In general, these overviews of human history have identified sequences of cultural development generally organized into five general phases: Paleoindian/Windust, Vantage/Cascade, Tucannon, Harder, and Numipu/Piquinin. The general trend of human adaptation in the Columbia Basin for these development phases suggests a change through time from an upland hunting strategy to a semi-sedentary riverine-based subsistence.

The APE is located in the traditional territory of the Yakama Indians, which included all lands drained by the Yakima River (Ruby and Brown 1986; Simmons 1983). Early ethnographers divided the Yakama into Upper and Lower groups based on their geographic location along the river. Ethnographies suggest that the Yakama located their villages along the river for ease of

transportation in addition to the presence of resource acquisition points for activities such as hunting, fishing, gathering, trading, and socializing (Ray 1936).

The earliest documented Euroamerican contact with the Yakama began with the Lewis and Clark Expedition of 1805–1806 and continued with fur traders from the Northwest Company and, later, the Hudson’s Bay Company (HBC). Miners, sheepherders, and missionaries followed in the first half of the nineteenth century, while ranchers purchased cattle from the HBC and established one of the earliest economies within the Yakima Valley. Around 1850, Catholic missionaries from the order of Oblates of Mary Immaculate established the St. Joseph’s Mission to work with (and likely try to convert) the Yakama (Phillips 1971). Friction between a rising population of whites and displaced natives of the area often culminated in armed conflicts in the 1850s, resulting in Federal troops being sent in to quell the Indian uprising. By 1855, a reservation was established for the Tribes and Bands of the Yakama Nation based on a treaty signed by the Washington Territorial Governor Isaac Stevens (Ruby and Brown 1986).

The early ranching efforts of the 1860s and 1870s were brought to a halt when, in the winter of 1880–1881, freezing temperatures devastated the local herds, killing over 100,000 head of cattle by starvation and/or freezing. The early settlers were forced to shift their focus and, in turn, began to recognize the richness of the soil and the amenable climate for growing hops and fruit. With the decimation of the cattle industry, the valley’s second economy centered on farms and orchards (looks like this area or at least a chunk of it was an orchard on account of the piles of uprooted apple trees – need to find out).

Settlement of the Yakima Valley began in earnest with the coming of the Northern Pacific Railroad in the 1880s, inspiring significant growth in the region. Northern Pacific laid down tracks to what was to become the city of Yakima in December of 1884. To avoid disputes with those that had already set claim to land in Yakima City (now known as Union Gap), Northern Pacific placed the tracks four miles north, and residential and urban development soon followed. Additional lines were later added including a junction operated by the North Yakima and Valley Railway Company, which organized in 1905, and linked a junction north of Yakima, in Selah, to a terminus southeast of Moxee City.

As the development of the railroad systems in and around Yakima continued throughout the valley, so did the agricultural industry. Numerous canal districts were constructed throughout the Yakima Valley to alleviate seasonal flooding of the Yakima River and its tributaries and to provide irrigation to local farms and orchards. The Yakima Valley continued to prosper throughout the twentieth century primarily due to the fruit and agricultural industries. Later economies included industrial manufacturing companies, meatpacking plants, lumber industries, and wineries.

Historic Maps

Chesterley Park Conversion Area

Historic maps were reviewed for the Chesterley Park Conversion Area. The 1865 GLO map indicates a west-east trending trail was located north and south of the Chesterley Park Conversion Area; no cultural features were noted in the immediate APE (Figure 5). The 1934 Charles F. Metsker (Metsker) Map of Yakima County indicates the Chesterley Park Conversion Area was formerly owned by H. L. Murdock. The 1949 aerial indicates the APE was formerly orchard;

buildings were located near the center of the parcel (CWU 1949) (Figure 6). Reviewed historic USGS (1958, 1961, 1974, 1985) maps identify two buildings near the northern extent of the APE (Figure 7 - Figure 9). The orchard appears to have been removed by 1985. Of the documents reviewed, Chesterley Park is not present until the 1994 historic aerial, available on the City of Yakima's GIS viewer. No buildings and/or structures are presently located in the APE.



Figure 5. Portion of the 1865 GLO Cadastral Survey Plat Map, T13N, R18E detailing the location of the Chesterley Park Conversion Area.



Figure 6. 1949 aerial detailing the general location of the Chesterley Park Conversion Area. Note the APE is largely orchard at this time and two buildings are present near the center of the parcel. Neither of the buildings are presently located in the APE.

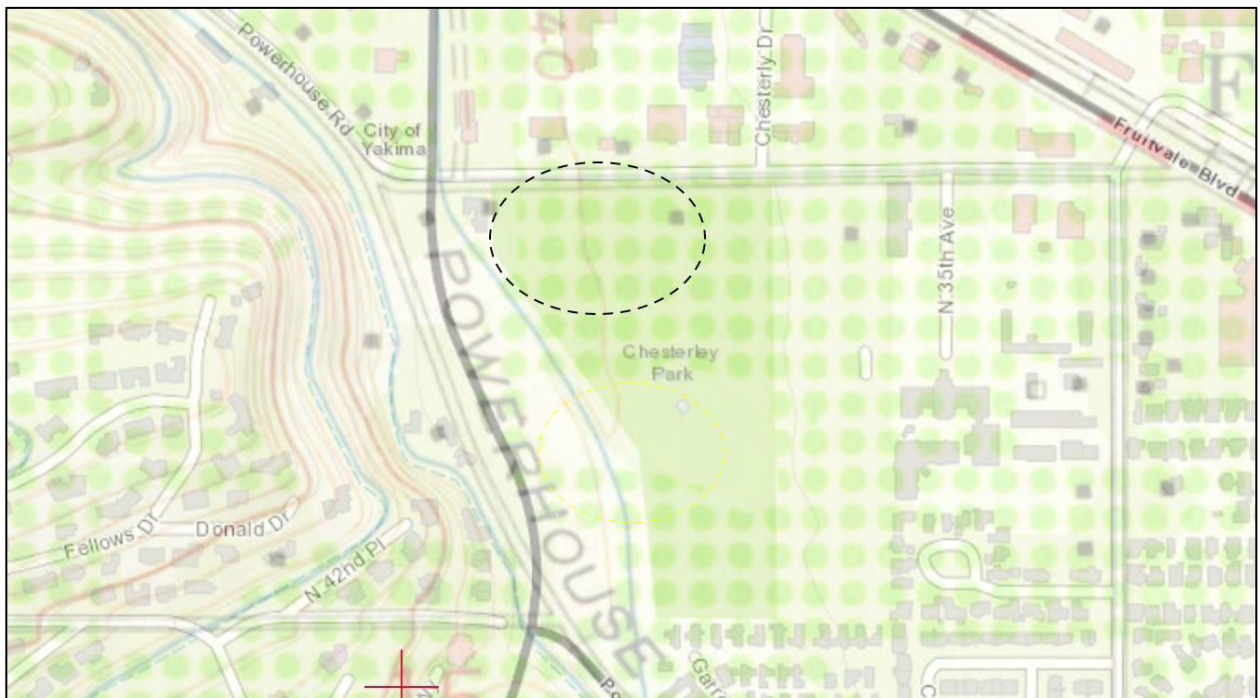


Figure 7. Portion of the 1958 USGS (overlying a contemporary map) that details the location of the Chesterley Park Conversion Area. Note the APE is orchard and there are two buildings located near the northern extent of the APE. No buildings are presently located in the APE.



Figure 8. Portion of the 1974 USGS (overlying a contemporary map) that details the Chesterley Park Conversion Area. Note two buildings located in the northern APE are no longer present.



Figure 9. Portion of the 1985 USGS (overlying a contemporary map) that details the Chesterley Park Conversion Area. Note the location of buildings that are not present today.

Replacement Park Area

The 1865 GLO map indicates a west-east trending trail was present less than 0.25 mile south of the APE (Figure 10). No cultural features are illustrated in the immediate APE. Of particular note, the tributary of Spring Creek, present in the APE, is not illustrated in the 1865 GLO.

The 1934 Metsker Map indicates that the Replacement Park Area was owned by C.A. Congdon. Chester A. Congdon was a prosperous orchard businessman whom owned 900 acres across the Yakima Valley at the turn of the 20th century (Bristol 2012). Among his various activities, Congdon helped survey the Sunnyside Canal, built the Yakima Valley Canal (1889), developed one of the largest single-ownership orchards in the region, and constructed a \$70,000 fruit storage and packing plant (1913) (Newbill 1975). Review of files made available on WISAARD or other readily available local sources did not offer further indication as to the historic use of the APE during this time.

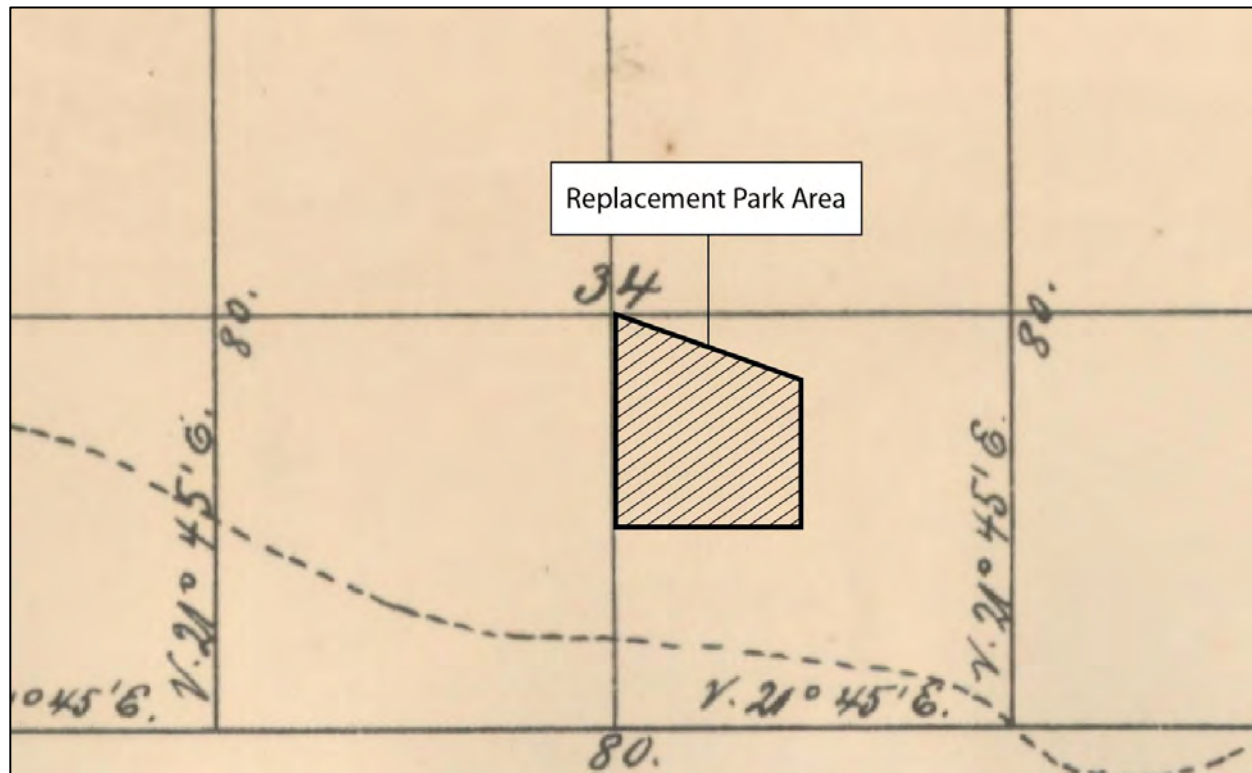


Figure 10. Portion of the 1865 GLO Cadastral Survey Plat Map, T13N, R18E detailing the location of the Replacement Park Area.

Historic aerial photography indicates that by 1949 there were several structures and/or buildings present at the southeast corner of the APE (Figure 11). At the northern half of the APE irrigation and/or water management appears to be present.



Figure 11. 1949 aerial detailing the Replacement Park Area. Note the two areas circled (in red) that appear to be the location of unidentified buildings and/or structures.

One of the buildings in the southeast portion of the APE was noted on the 1958 USGS topographic map (Figure 12). The USGS map was updated in 1974 and at that time another building, located nearer Spring Creek, was noted (Figure 13). This new building is located in the same location as buildings observed in the 1949 aerial. On the 1985 USGS no buildings are illustrated suggesting

that the buildings had since been demolished (Figure 14). A 1996 aerial confirms the buildings had been demolished by that time (Figure 15). According to Yakima County Assessor's Records, the property is currently owned by Congdon Development Co LLC.

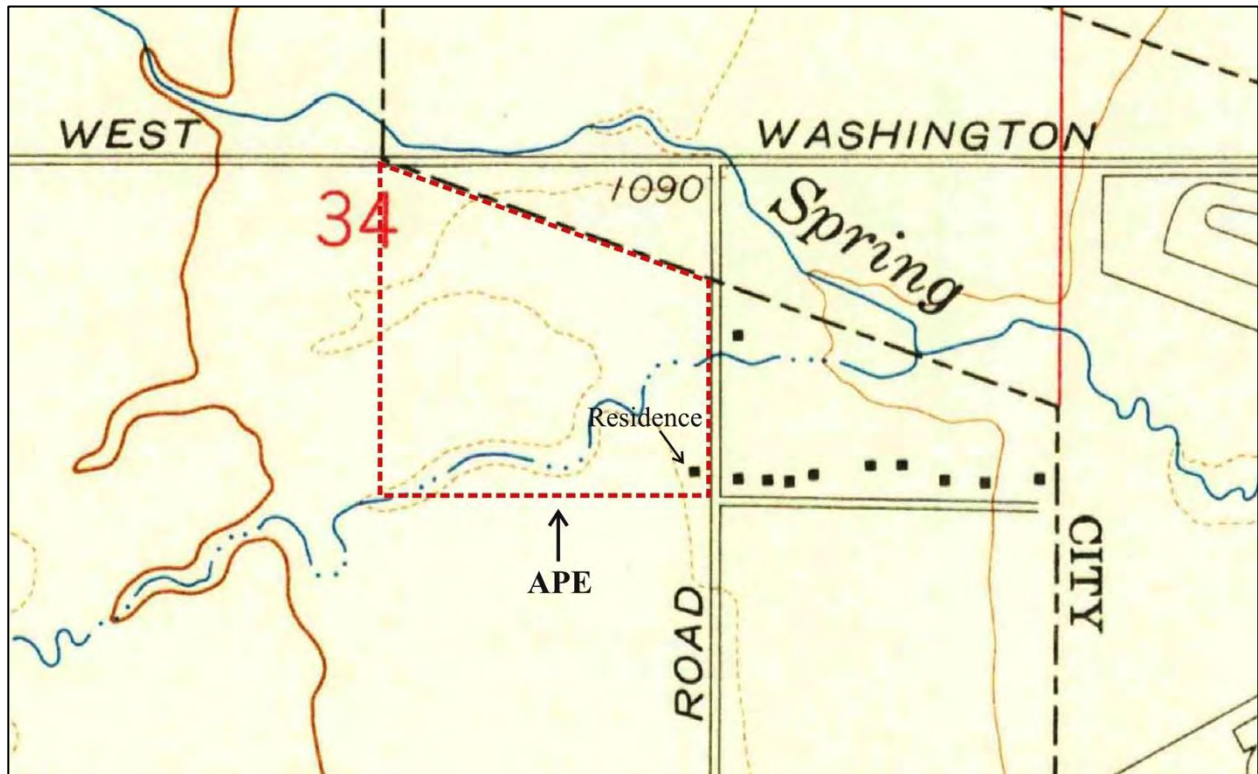


Figure 12. 1958 USGS detailing the Replacement Park Area. Note building near southeast corner of APE.



Figure 13. A portion of the 1974 USGS detailing the Replacement Park Area. Note additional building (pink) near southeast corner of APE.



Figure 14. A portion of the 1985 USGS detailing the Replacement Park Area. Note no buildings are indicated in APE.



Figure 15. 1996 aerial detailing the Replacement Park Area. Note it appears that the buildings/structures near the southeast corner of the APE and much of the vegetation along Spring Creek have been removed.

Previous Cultural Resources Studies and Sites

Review of the DAHP's WISAARD database was conducted in March 2017. WISAARD is a restricted-access searchable Geographic information System that depicts locations of previously

recorded cultural resources surveys conducted post-1995, archaeological sites, historic sites, NRHP sites, and cemeteries / burials.

According to WISAARD, the Chesterley Park Conversion Area has not been previously surveyed for cultural resources. Nearest the Chesterley Park Conversion Area two cultural resources surveys have been conducted approximately 0.21 mile to the north. In 2015 a cultural resources survey was conducted prior to the conversion of a segment of railroad to recreational trail (Woody 2015). No new cultural resources were identified. In 1999 a cultural resources study was conducted for a fiber optic line (Fagen 1999). No cultural resources were identified in the area nearest the subject APE. As a result of these past studies in the vicinity of the Chesterley Park Conversion Area no archaeological or historical sites have been previously recorded. The nearest previously recorded archaeological site is 45YA844, a historic refuse scatter located 0.53 mile east near the railroad line. The nearest registered property is the “Alderson Barn” (45YA1128) located 0.81 mile southeast.

According to WISAARD, the Replacement Park Area has also not been previously surveyed for cultural resources. The nearest study was conducted for the Yakima Sports Complex located immediately south of the Replacement Park Area (Baldwin and Chambers 2015). The study identified one historic property, a residential farm (2210 S 38TH, Ahtanum, WA 98903). No archaeological or historical sites have been previously recorded in the Replacement Park Area. The nearest previously recorded archaeological site is 45YA1095 a historic late nineteenth-century to early twentieth century debris scatter/concentration site that was identified approximately 0.5 mile to the north. The site consists of domestic fragmentary bottles and glass fragments, tableware fragments, canning jar fragments, and miscellaneous metal artifacts (Orvald 2007). The site was located on a modified terrace 205 meters south of Wide Hollow Creek redeposited on recently bladed cobbly, gravelly sediments, presumably from excavation for the installed utilities (Orvald 2007).

EXPECTATIONS FOR CULTURAL RESOURCES

Based on review of the project scope and environmental and cultural contexts, both areas of the APE are considered to be located in areas of low probability for cultural resources.

The Chesterley Park Conversion area has been developed as a recreational field. There is no fresh water source in the APE; a canal runs along the western edge of the APE and the Naches River is located less than one-mile to the north. No archaeological or historical archaeology has been previously recorded in the APE. Historic documents indicate the Chesterley Park Conversion Area was previously utilized for orcharding and may have contained some buildings and/or structures that were likely associated with the operation of the orchard. The orchards, the buildings and/or structures have long been removed from the current APE and are no longer present.

The Replacement Park Area is currently undeveloped. A tributary of Spring Creek traverses the southern half of the APE. No archaeological or historical archaeology has been previously recorded in the APE. Historic documents indicate the APE was formerly owned by Congdon, a local orchard family. Orchards are not apparent in the APE on the reviewed historic documents

however buildings and/or structures were present at one time in the southeast corner of the APE; historic aerials have confirmed the buildings/structures have since been demolished.

If cultural resources were to be present in either area of the APE artifact types, based on the land use history, would likely represent historic agricultural and/or residential features. Precontact sites are not likely to be present as neither area of the APE is located near a stable fresh water source that would have supported long-term occupation. Considering little soil deposition has occurred locally and that both areas of the APE have been used historically for agriculture, it is likely any buried cultural materials and/deposits would be observable in exposed soils from past and recent tilling, plowing and/or pasturing.

FIELD INVESTIGATION

Field investigation was conducted in March 2017 by DA archaeologist Choya Davis during clear and cool weather conditions. Field investigation included pedestrian survey, visual reconnaissance, and subsurface testing. Pedestrian survey consisted of walking meandering transects across the APE and inspecting the general area for evidence of archaeological materials on the ground surface and/or topographical features that may indicate the presence/absence of buried archaeological deposits. Visual reconnaissance was generally conducted during pedestrian survey and consisted of examining the APE for aboveground resources, such as buildings and/or structures that might be present. Subsurface testing consisted of excavating shovel probes to identify subsurface soil conditions and to determine the presence/absence of buried cultural materials and/or deposits. SPs were placed judgmentally based on the project scope and available landforms/boundary markers. SPs were not excavated in areas that were obviously disturbed or where soils were obscured by pavement and/or contemporary buildings and structures. SPs measured approximately 40 to 50 centimeters (cm) in diameter and were excavated to a depth that represented proposed project construction in that location, within reason. Excavated sediments were screened through 1/4 inch mesh hardware and upon completion of excavation each probe was backfilled. Representative photographs were taken of each shovel probe. A log of sediment descriptions and contents are provided in Appendix A.

The APE consists of two separate areas, the Chesterley Park Conversion Area and the Replacement Park Area, each of which exhibits varying characteristics. At the Chesterley Park Conversion Area the APE has been developed and is currently utilized for recreation; the APE is currently covered in soccer turf and/or asphalt for the parking lot (Photo 1). As no construction was initially proposed at the Chesterley Park Conversion Area DA was requested to not conduct field investigation of this area.



Photo 1. Overview of Chesterley Park Area, view south.

At the Replacement Park Area the APE is characteristic of an abandoned agricultural area. The topography is largely flat with numerous small ponds, patches of marsh, and an unnamed tributary of Spring Creek running through the southern portion of the APE (Photos 2-3). Nearly all of this section of the APE was covered by grasses and shrubs. Standard transects were impractical due to ground saturation and, as such a GPS unit was utilized to insure that the entire area was surveyed and inspected. High water and vegetation rendered ground surface visibility extremely low (less than 1 per cent).



Photo 2. Overview of the Replacement Park Area, view southeast.



Photo 3. Overview taken from northwest corner of the Replacement Park Area, view southeast.

A total of 20 shovel probes were excavated at the Replacement Park Area (Figure 16). Shovel probes were oriented along north-south running transect lines, with transect lines spaced 90 meters apart. The number of shovel probes corresponding to each transect line varied from three to five shovel probes, with probes evenly spaced from project areas southern and northern boundaries. Observed sediments consisted of loosely-to-moderately compact silty loam ranging in color from dark brown to yellow brown with little to no discernable stratigraphy. Rock content was extremely low throughout the project area (Photo 4).

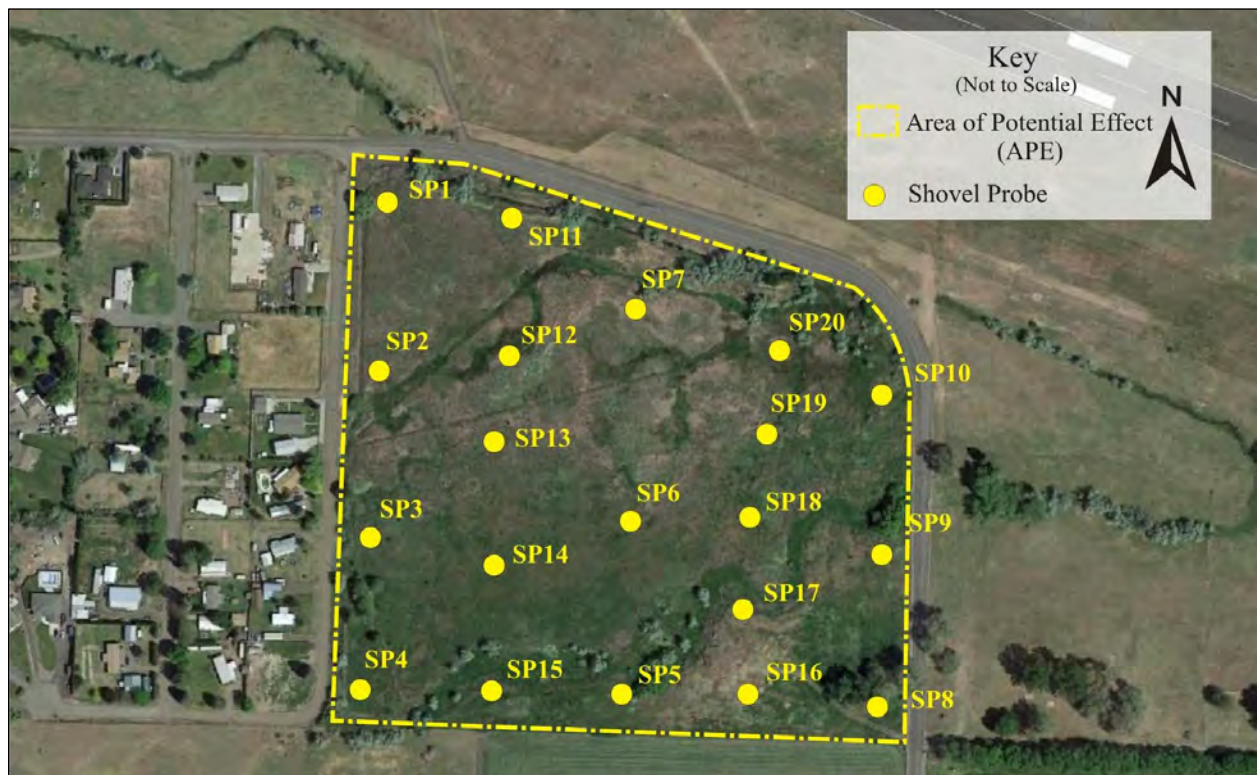


Figure 16. Location of shovel probes excavated within the Replacement Park Area.



Photo 4. Shovel Probe (SP1) showing a typical sediment profile.

No precontact cultural materials were observed during field investigation. On the ground surface, a variety of modern and temporally non-diagnostic items such as including wooden boards, posts, a brown glass Clorox jug, beer cans, plastic of plastic, and other pieces of trash were observed. Cultural materials recovered from shovel probes consisted of one shotgun shell (Photo 5), three pieces of colorless glass, one piece of corroded iron (Photo 6), and one plastic fragment. None of these items displayed temporally diagnostic attributes.



Photo 5. SP3 Shotgun shell recovered from 0-30 cmbs.



Photo 6. SP9 glass fragment and piece of corroded iron.

In the north-central portion of the Replacement Park Area, a concrete drainage was observed in a flooded area (Photos 7-8). The drainage was located within a linear feature that appears in the 1949 aerial. The linear feature likely functions for water management but review of documents made available by City of Yakima GIS and WISAARD did not identify the feature as part of a greater system. Additionally, piles of uprooted trees, milled lumber and associated iron fittings were observed near the southeast corner of the APE (Photo 9-10). The milled lumber appears to be mostly posts that may have been used for fencing. The piles of trees and lumber are in the vicinity of the where the former buildings and structures were located according to the reviewed historic documents. The general location of the drainage feature and piles of trees and lumber are illustrated in Figure 17.



Photo 7. Concrete drainage feature encountered in the north-central portion of the Replacement Park Area.



Photo 8. Concrete drainage feature encountered in the north-central portion of the Replacement Park Area.



Photo 9. Overview of pile of uprooted trees and milled lumber as encountered near the southeast corner of the Replacement Park Area.



Photo 10. Overview of pile of uprooted trees as encountered near the southeast corner of the Replacement Park Area.

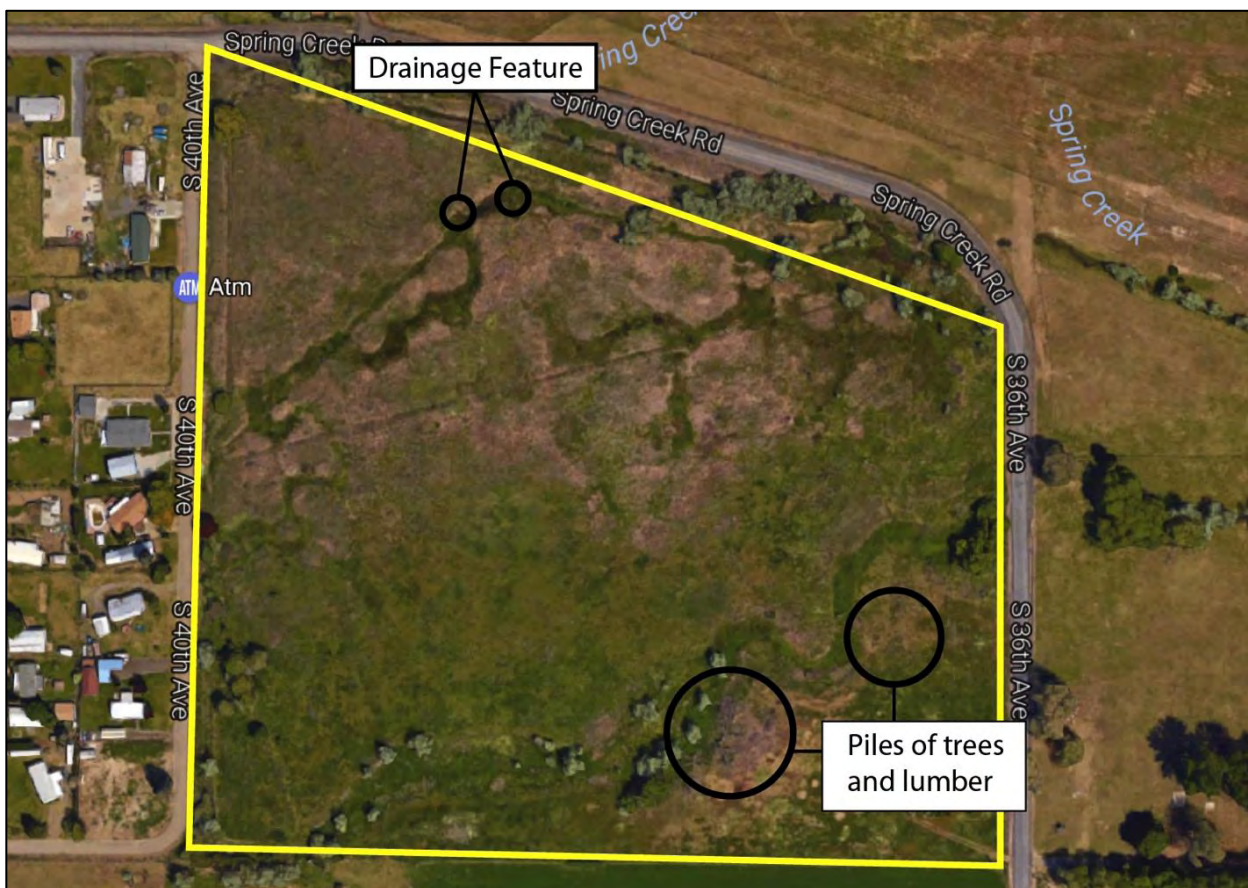


Figure 17. Modern aerial detailing the location of the drainage feature and piles of trees and lumber within the Replacement Park Area. Google Earth image, adapted by DA.

RESULTS AND RECOMENDATIONS

DA's cultural resources assessment for this project consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area of low probability for historic properties. Field investigation included pedestrian survey, visual reconnaissance and subsurface testing of the Replacement Park Area. DA was requested not to conduct field study of the Chesterley Park Conversion Area as we were originally advised that no construction would be occurring in that area.

No artifacts, features, or potentially eligible historic properties were encountered in the Replacement Park Area portion of the APE. As such, DA recommends a determination of "No Historic Properties Affected" for the Replacement Park Area portion of the APE. DA further recommends that if development of the Chesterley Park Conversion Area is to include ground disturbing activities that field investigation be adequately conducted to ensure that no potential buried cultural resources are adversely affected.

In the event that archaeological materials are encountered during the project, work should be halted in the vicinity of the find and an archaeologist should immediately be notified. Work would only proceed after the materials is inspected and assessed. At that time the appropriate persons are to be notified of the exact nature and extent of the resource so that measures can be taken to secure them. In the event of inadvertently discovered human remains or indeterminate bones, work must stop immediately. Any remains should be covered and secured against further disturbance; communication should then be established with Yakima Police, the State Physical Anthropologist at DAHP, and the appropriate Tribal Historic Preservation Officer(s).

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APPENDIX A: SHOVEL PROBE INDEX

DEPTH BELOW SURFACE (CM)	SEDIMENT DESCRIPTION	CONTENTS
SP1		
0-79	Brown silty loam. No rocks.	No cultural material.
79-99	Brown silty loam with trace inclusions of white silt.	No cultural material.
Notes: No rocks.		
SP2		
0-94	Dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 87cm.		
SP3		
0-85	Dark brown silty loam. No rocks.	Shotgun shell recovered from 0-30 cm.
85-99	Dark brown silty loam. Low rounded pebble and gravel content.	No cultural material.
Notes:		
SP4		
0-100	Dark brown silty loam with very low rounded gravel content.	No cultural material.
Notes:		
SP5		
0-9	Dark brown silty loam with moderate root content and no rocks.	No cultural material.
9-100	Yellow-brown moderately compact silty loam. No rocks.	No cultural material.
Notes:		
SP6		
0-99	Yellow-brown moderately compact silty loam with one rounded cobble.	No cultural material.
Notes:		
SP7		
0-60	Moist and claggy brown silty loam. No rocks.	No cultural material.
Notes: Water at 55cm. No rocks.		
SP8		
0-100	Dark brown silty loam with very low rounded gravel content.	<p>1 colorless glass fragment with stippling measuring 1 in. x 1/2 in. x 1/8 in. thick.</p> <p>1 colorless glass finish fragment (likely a mason jar finish) measuring 1 1/4 in. x 1 in. x 1/8 in. thick.</p>

DEPTH BELOW SURFACE (CM)	SEDIMENT DESCRIPTION	CONTENTS
SP9		
0-100	Brown silty loam with very low rounded pebble content.	1 colorless glass fragment measuring 1 in. x 3/4 in. x 1/8 in. thick. 1 piece of highly corroded iron measuring 1 3/8 in. long x 1/4 in diameter.
Notes: A cluster of boards and posts was observed west of and adjacent to SP9. The cluster is spread over an area measuring 15 meters east-west x 8 meters north-south and consists of approximately 24 boards and posts, some with corroded round nails and some with non-corroded galvanized round nails. Boards and posts range in length from 80 in. to 14 feet long, and include 5 1/2 in. x 1 1/2 in. boards and 5 3/4 in. x 5 3/4 in. posts.		
SP10		
0-57	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 45cm.		
SP11		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP12		
0-60	Dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 50cm.		
SP13		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP14		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP15		
0-100	Dark brown silty loam. No rocks.	Plastic item measuring 3/4 in. tall x 1 1/4 in diameter recovered from 0-30cm
SP16		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP17		
0-40	Brown silty loam. No rocks.	No cultural material.
40-100	Yellow-brown moderately compact silty loam with low rounded gravel content.	No cultural material.
SP18		
0-105	Brown silty loam. No rocks.	No cultural material.
SP19		
0-63	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 54 cm.		
SP20		
0-59	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 55 cm.		

CULTURAL RESOURCES REPORT COVER SHEET

Author: Garth Baldwin, Jennifer Chambers, and Choya Davis

Title of Report: Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington

Date of Report: April 20, 2017

County(ies): Yakima Sections: 15 and 34 Township: 13N Range: 18E

Quad: Yakima West Acres: 36.79

PDF of report submitted (REQUIRED) ☒ Yes

Historic Property Inventory Forms to be Approved Online? ☐ Yes ☒ No

Archaeological Site(s)/Isolate(s) Found or Amended? ☐ Yes ☒ No

TCP(s) found? ☐ Yes ☒ No

Replace a draft? ☐ Yes ☒ No

Satisfy a DAHP Archaeological Excavation Permit requirement? ☐ Yes # ☒ No

Were Human Remains Found? ☐ Yes DAHP Case # ☒ No

DAHP Archaeological Site #:

- Submission of PDFs is required.
- Please be sure that any PDF submitted to DAHP has its cover sheet, figures, graphics, appendices, attachments, correspondence, etc., compiled into one single PDF file.
- Please check that the PDF displays correctly when opened.



DRAYTON ARCHAEOLOGY

Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington



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Prepared For:

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Drayton Archaeology Report: 0117A

April 20, 2017

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Cultural Resources Assessment for the RCO Conversion at Chesterley Park Project, Yakima, Yakima County, Washington

Author: Garth L. Baldwin, Jennifer Chambers and Choya Davis
Date: April 20, 2017
Location: Yakima County, Washington
USGS Quad: Yakima West, WA (1985), 7.5-minute quadrangle
Legal: Township 13 North, Range 18 East, Sections 15 and 34, Willamette Meridian

SUMMARY

Drayton Archaeology (DA) contracted with Widener & Associates to conduct a cultural resources assessment for the RCO Conversion at Chesterley Park Project (the project) located in Yakima, Yakima County, Washington. The project proposes to remove federal 6(f)3 protection from 5.59 acres of Chesterley Park and construct a new 31.2-acre replacement park. The project is subject to section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that federal agencies having direct or indirect jurisdiction over a proposed project (e.g. an undertaking) must consider the effect of the undertaking on historic properties that are or may be eligible for the National Register of Historic Places (NRHP).

DA's cultural resources assessment for this project consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area of low probability for historic properties. Field investigation included pedestrian survey, visual reconnaissance and subsurface testing of the Replacement Park Area. A brief site visit was made to Chesterley Park; no subsurface testing conducted.

No artifacts, features, or potentially eligible historic properties were encountered in the Replacement Park Area portion of the APE. As such, DA recommends a determination of "No Historic Properties Affected" for the Replacement Park Area portion of the APE. DA further recommends that if development of the Chesterley Park Conversion Area is to include ground disturbing activities that field investigation be adequately conducted to ensure that no potential buried cultural resources are adversely affected.

REGULATORY CONTEXT

This cultural resources assessment was conducted, in part, to satisfy regulatory requirements for section 106 of the National Historic Preservation Act (NHPA) and the implementing regulations in 36 CFR Part 800. Section 106 requires Federal agencies take into account the effects of their undertakings on historic properties. A historic property is typically aged 50 years or older and is defined in 36 CFR part 800.16(l)(1) as follows:

... any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP) maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes

properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

The procedures under section 106 generally require the Federal agency involved in the undertaking to identify the area of potential effect (APE), inventory any historic properties that may be located within the APE, and determine if the identified historic properties located within the APE may be eligible for listing on the NRHP. An APE is defined in 36 CFR 800.16(d), as follows:

... the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

If NRHP-eligible historic properties are identified within the APE, then potential adverse effects to the historic properties must be assessed and a resolution of adverse effects must be recommended. Under section 106, the responsible Federal agency must, at a minimum, consult with and seek comment from the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO), as applicable, and consult with any affected or potentially affected Native American Tribe(s).

AREA OF POTENTIAL EFFECTS AND UNDERTAKING

The RCO Conversion at Chesterley Park Project is located in Yakima, Yakima County, Washington (Figure 1). The City of Yakima proposes to transfer federal 6(f)3 protection (under the Land and Water Conservation Fund Act [LWFC]) from 5.59 acres at Chesterley Park to a new 31.2-acre park (hereafter referred to as the Replacement Park). There will remain at Chesterley Park 26.4 acres subject to LWCF requirements. Chesterley Park is an established park located at River Road and N 40th Avenue. The Replacement Park Area (parcel no. 18133442002) is located southwest of the Yakima Airport between S 40th Avenue and S 36th Avenue and is currently undeveloped. Chesterley Park is located within the legal geographic area of Township 13 North; Range 18 East; Section 15. The Replacement Park is located within the legal geographic area of Township 13 North; Range 18 East; Section 34. The total are of the APE is 36.79 acres. It is understood that all construction and staging will occur within the defined APE.

The conversion will allow for construction of a combined YMCA and City of Yakima aquatic center (Figures 2). The Replacement Park Area will be developed into a park featuring open space, picnic areas, walking paths, natural areas, playgrounds, restrooms, and parking facilities (Figures 3-4). This will require ground disturbing activities including clearing and grading, construction of parking lots and trails, and construction of restrooms and picnic shelters. The maximum depth of excavation for this project will be three feet for construction of the Replacement Park.

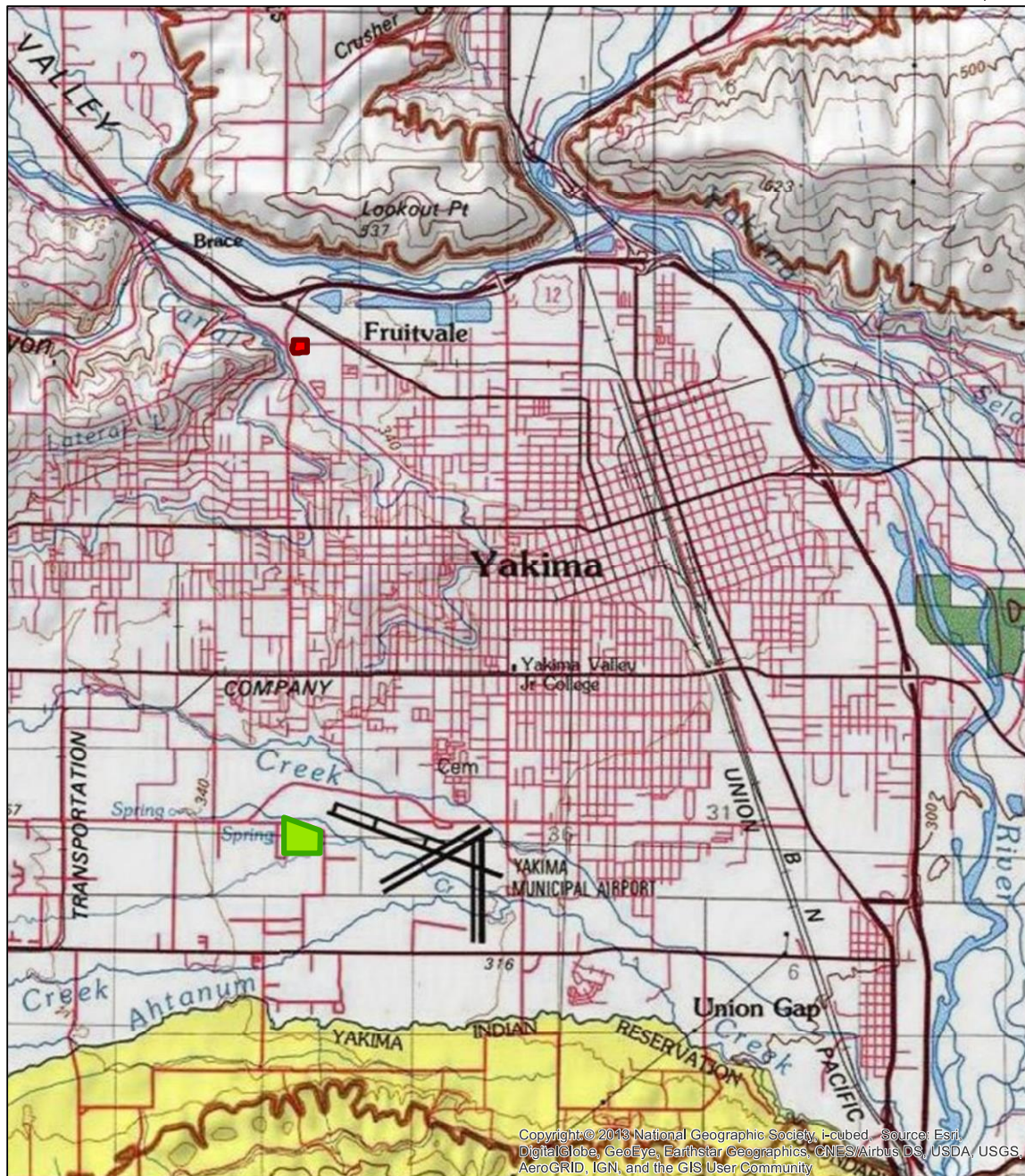


Figure 1. Vicinity Map

- Chesterley Park Conversion Area
- Replacement Park Area

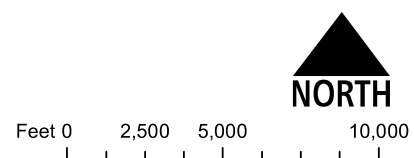




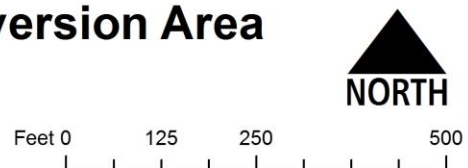
Figure 1. Portion of the USGS (1985) Yakima West, WA topographic quadrangle map detailing the APE for the RCO Conversion at Chesterley Park Project (map courtesy of Widener & Associates).

March 13, 2017



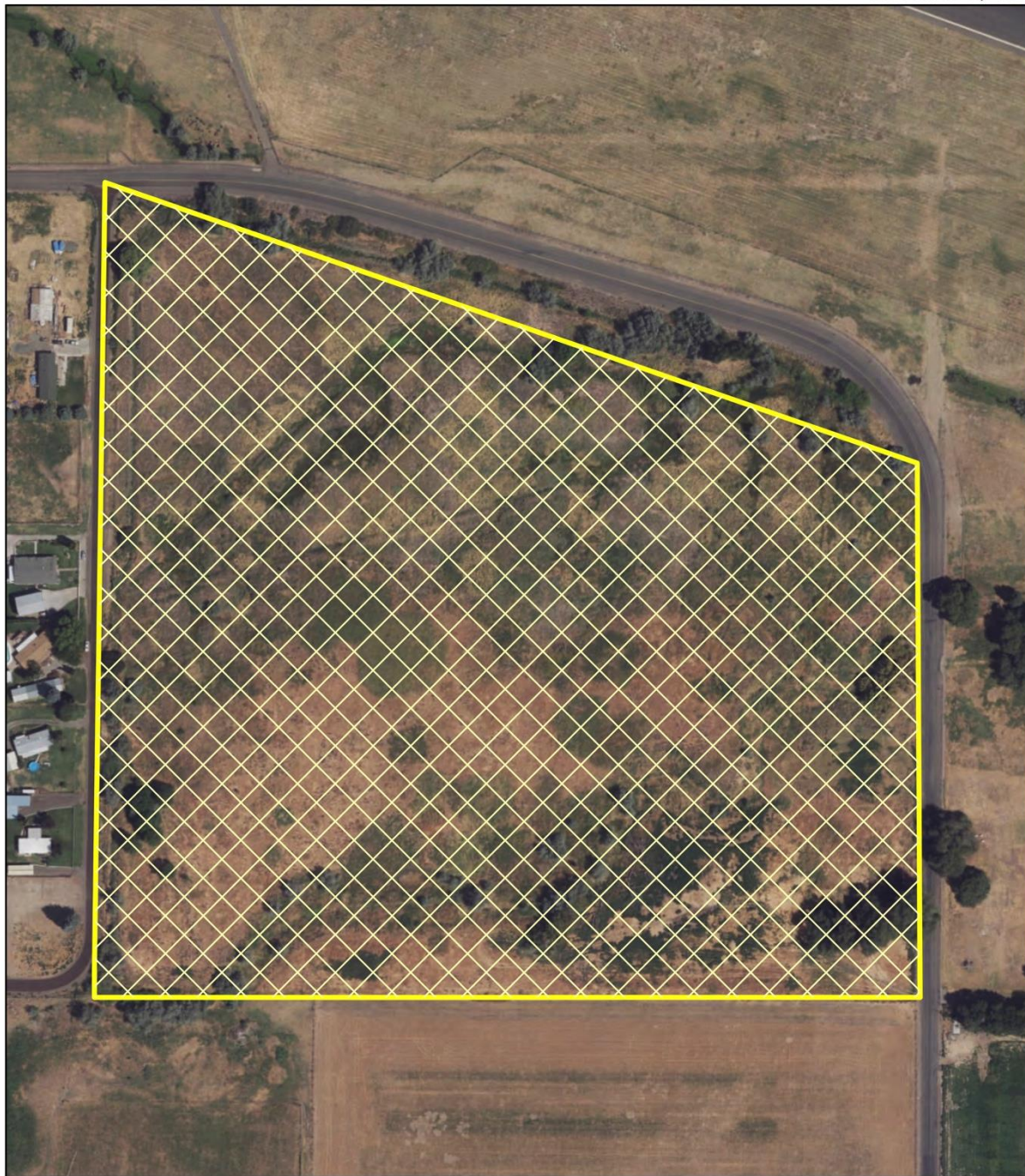
Figure 2. Chesterley Park Conversion Area

-  Conversion Area - Future Aquatic Center and Parking
-  Approximate 6(f) Protected Park Boundary



Disclaimer: Conversion areas and park boundary layers are a close approximation but may differ slightly from the legal site boundary.

Figure 2. The Chesterley Park Conversion Area portion of the APE (Figure courtesy of Widener & Associates).



 APE

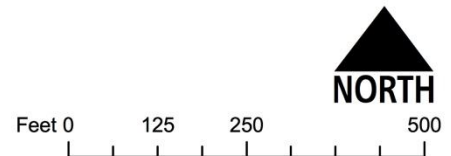
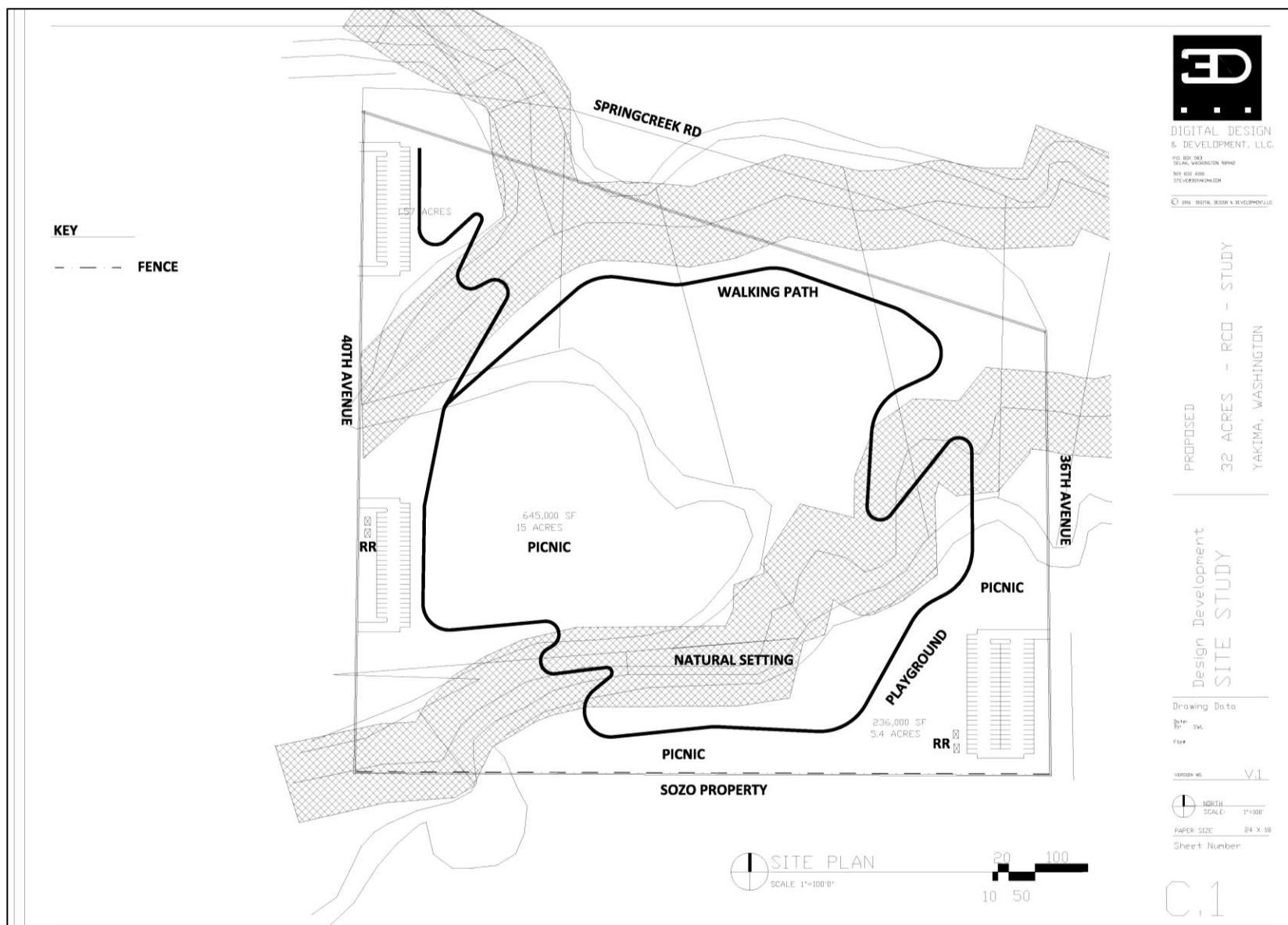


Figure 3. The Replacement Park Area portion of the APE (Figure courtesy of Widener & Associates).



BACKGROUND REVIEW

Determining the probability for historic properties to be present within the APE was based largely upon review and analysis of past environmental and cultural contexts and previous cultural resource studies and sites. This included review of project files; local geologic data to better understand the depositional environment; historic maps; archaeological, historic, and ethnographic records made available on the Washington Information System for Architectural and Archaeological Records Data (WISAARD) database; and selected published local historic records.

Environmental Context

The APE is located in Yakima County, Washington. Yakima is located within the Columbia River Plateau (or Columbia Basin) physiographic province. The Columbia River Plateau is a broad basin that formed during the Miocene as flood basalts erupted from long fissures and spread out over the land (Baker et al. 1991; Hooper 1982). Hooper (1982) estimates that more than 200,000 km³ of lava flowed over the Columbia Basin between 17 and 6 million years ago. As the basalt flowed out and covered the land, the earth's crust gradually sank, and a large basin was formed. The basalts in the area have been folded into very large anticlines that strike east-west to southeast-northwest (Lasmanis 1991). In some areas, the basalt is overlain with alluvial gravels deposited during the Pliocene, glacial outwash and wind-blown loess deposited during the Pleistocene, and/or Holocene alluvium (Baker et al. 1991, Lasmanis 1991).

According to the United States Department of Agriculture, Natural Resource Conservation Service (USDA NRCS), soils in the Chesterley Park Conversion Area are derived of Ashue loams, which are typically located on terraces and derived of alluvium. Soils in the Replacement Park Area have been mapped as consisting primarily of Toppenish silt loam, track loam, and Kittitas silt loam. Toppenish silt loams, track loams and Kittitas silt loams are typically located on flood plains and are derived of alluvium.

Prior to historic settlement, the vegetation in the APE would have been typical of the *Artemisia tridentata* zone (Franklin and Dyrness 1973:44). This shrub-steppe zone is characterized by bunchgrasses and sagebrushes, vegetation typical of the upland deserts environment in the rain shadow of the Cascade Mountains. The region is arid to semiarid with warm summers, very cold winters, and limited precipitation.

Cultural Context

Precontact occupation of the Columbia Basin has been well summarized in regional literature over the past several decades (e.g. Ames et al. 1998; Browman and Munsel 1960; Daugherty 1962; Dumond and Minor 1983). In general, these overviews of human history have identified sequences of cultural development generally organized into five general phases: Paleoindian/Windust, Vantage/Cascade, Tucannon, Harder, and Numipu/Piquinin. The general trend of human adaptation in the Columbia Basin for these development phases suggests a change through time from an upland hunting strategy to a semi-sedentary riverine-based subsistence.

The APE is located in the traditional territory of the Yakama Indians, which included all lands drained by the Yakima River (Ruby and Brown 1986; Simmons 1983). Early ethnographers divided the Yakama into Upper and Lower groups based on their geographic location along the river. Ethnographies suggest that the Yakama located their villages along the river for ease of

transportation in addition to the presence of resource acquisition points for activities such as hunting, fishing, gathering, trading, and socializing (Ray 1936).

The earliest documented Euroamerican contact with the Yakama began with the Lewis and Clark Expedition of 1805–1806 and continued with fur traders from the Northwest Company and, later, the Hudson’s Bay Company (HBC). Miners, sheepherders, and missionaries followed in the first half of the nineteenth century, while ranchers purchased cattle from the HBC and established one of the earliest economies within the Yakima Valley. Around 1850, Catholic missionaries from the order of Oblates of Mary Immaculate established the St. Joseph’s Mission to work with (and likely try to convert) the Yakama (Phillips 1971). Friction between a rising population of whites and displaced natives of the area often culminated in armed conflicts in the 1850s, resulting in Federal troops being sent in to quell the Indian uprising. By 1855, a reservation was established for the Tribes and Bands of the Yakama Nation based on a treaty signed by the Washington Territorial Governor Isaac Stevens (Ruby and Brown 1986).

The early ranching efforts of the 1860s and 1870s were brought to a halt when, in the winter of 1880–1881, freezing temperatures devastated the local herds, killing over 100,000 head of cattle by starvation and/or freezing. The early settlers were forced to shift their focus and, in turn, began to recognize the richness of the soil and the amenable climate for growing hops and fruit. With the decimation of the cattle industry, the valley’s second economy centered on farms and orchards (looks like this area or at least a chunk of it was an orchard on account of the piles of uprooted apple trees – need to find out).

Settlement of the Yakima Valley began in earnest with the coming of the Northern Pacific Railroad in the 1880s, inspiring significant growth in the region. Northern Pacific laid down tracks to what was to become the city of Yakima in December of 1884. To avoid disputes with those that had already set claim to land in Yakima City (now known as Union Gap), Northern Pacific placed the tracks four miles north, and residential and urban development soon followed. Additional lines were later added including a junction operated by the North Yakima and Valley Railway Company, which organized in 1905, and linked a junction north of Yakima, in Selah, to a terminus southeast of Moxee City.

As the development of the railroad systems in and around Yakima continued throughout the valley, so did the agricultural industry. Numerous canal districts were constructed throughout the Yakima Valley to alleviate seasonal flooding of the Yakima River and its tributaries and to provide irrigation to local farms and orchards. The Yakima Valley continued to prosper throughout the twentieth century primarily due to the fruit and agricultural industries. Later economies included industrial manufacturing companies, meatpacking plants, lumber industries, and wineries.

Historic Maps

Chesterley Park Conversion Area

Historic maps were reviewed for the Chesterley Park Conversion Area. The 1865 GLO map indicates a west-east trending trail was located north and south of the Chesterley Park Conversion Area; no cultural features were noted in the immediate APE (Figure 5). The 1934 Charles F. Metsker (Metsker) Map of Yakima County indicates the Chesterley Park Conversion Area was formerly owned by H. L. Murdock. The 1949 aerial indicates the APE was formerly orchard;

buildings were located near the center of the parcel (CWU 1949) (Figure 6). Reviewed historic USGS (1958, 1961, 1974, 1985) maps identify two buildings near the northern extent of the APE (Figure 7 - Figure 9). The orchard appears to have been removed by 1985. Of the documents reviewed, Chesterley Park is not present until the 1994 historic aerial, available on the City of Yakima's GIS viewer. No buildings and/or structures are presently located in the APE.

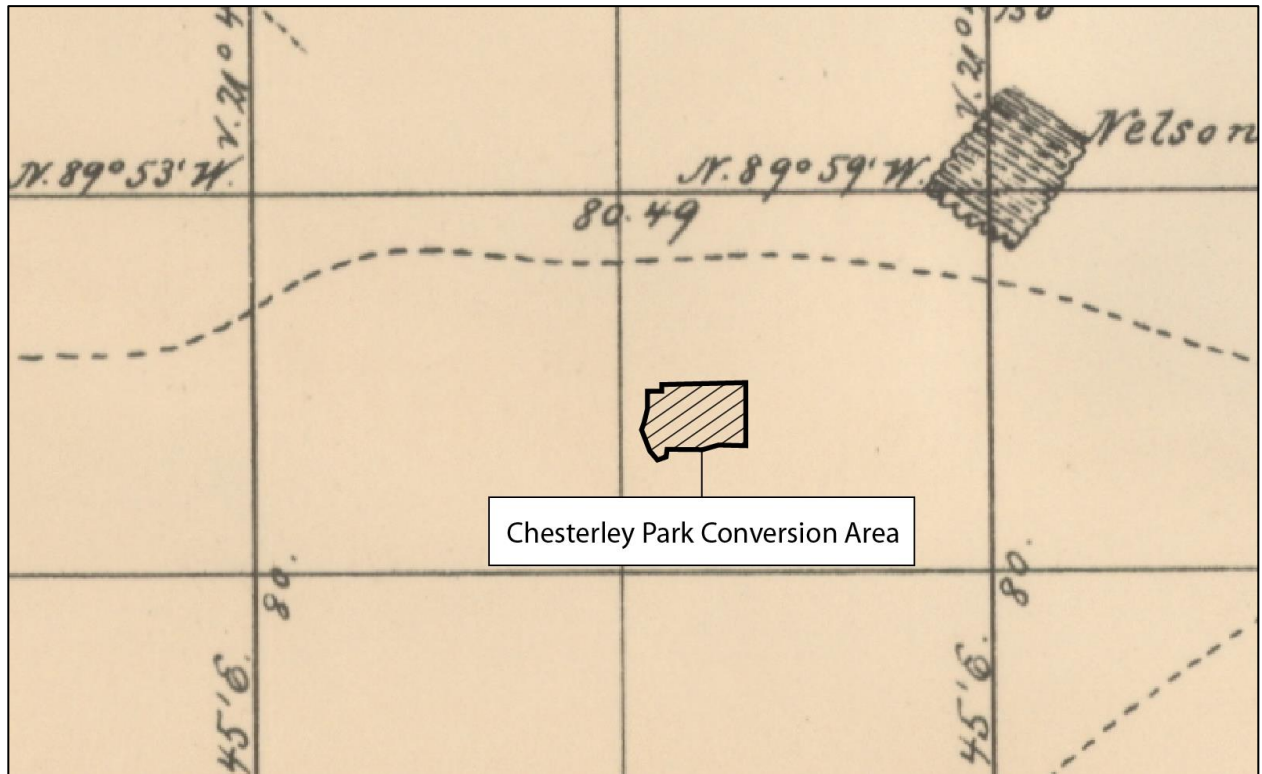


Figure 5. Portion of the 1865 GLO Cadastral Survey Plat Map, T13N, R18E detailing the location of the Chesterley Park Conversion Area.



Figure 6. 1949 aerial detailing the general location of the Chesterley Park Conversion Area. Note the APE is largely orchard at this time and two buildings are present near the center of the parcel. Neither of the buildings are presently located in the APE.

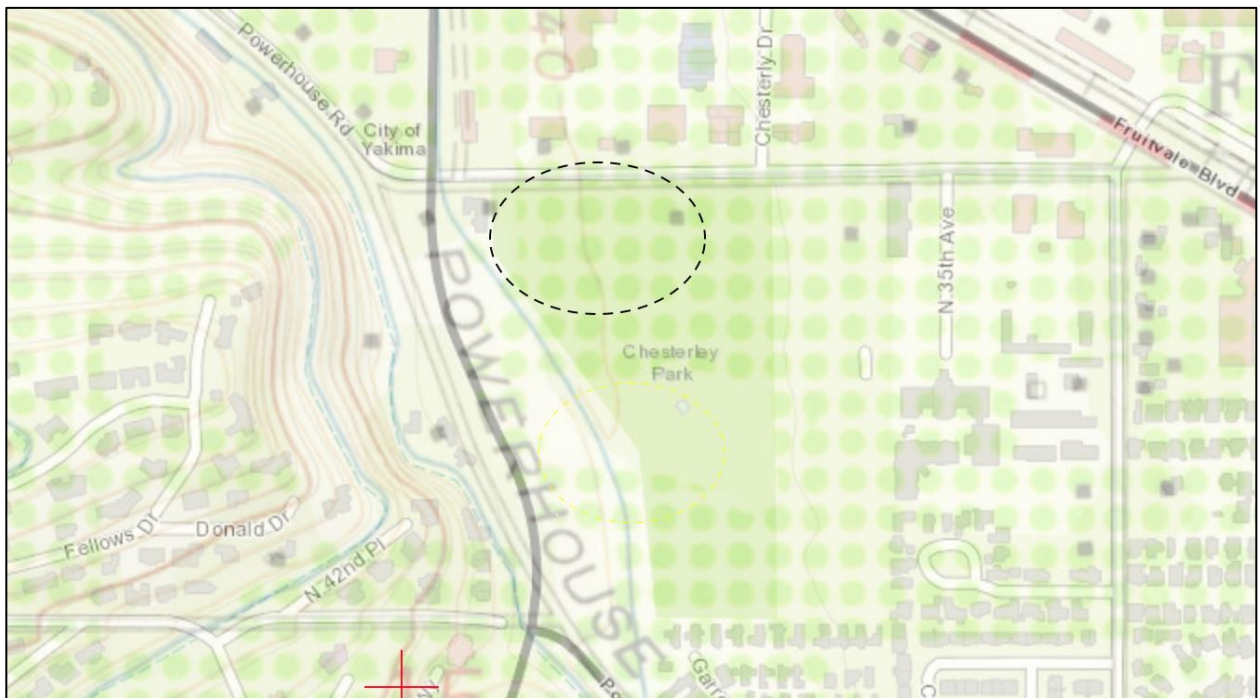


Figure 7. Portion of the 1958 USGS (overlying a contemporary map) that details the location of the Chesterley Park Conversion Area. Note the APE is orchard and there are two buildings located near the northern extent of the APE. No buildings are presently located in the APE.



Figure 8. Portion of the 1974 USGS (overlying a contemporary map) that details the Chesterley Park Conversion Area. Note two buildings located in the northern APE are no longer present.



Figure 9. Portion of the 1985 USGS (overlying a contemporary map) that details the Chesterley Park Conversion Area. Note the location of buildings that are not present today.

Replacement Park Area

The 1865 GLO map indicates a west-east trending trail was present less than 0.25 mile south of the APE (Figure 10). No cultural features are illustrated in the immediate APE. Of particular note, the tributary of Spring Creek, present in the APE, is not illustrated in the 1865 GLO.

The 1934 Metsker Map indicates that the Replacement Park Area was owned by C.A. Congdon. Chester A. Congdon was a prosperous orchard businessman whom owned 900 acres across the Yakima Valley at the turn of the 20th century (Bristol 2012). Among his various activities, Congdon helped survey the Sunnyside Canal, built the Yakima Valley Canal (1889), developed one of the largest single-ownership orchards in the region, and constructed a \$70,000 fruit storage and packing plant (1913) (Newbill 1975). Review of files made available on WISAARD or other readily available local sources did not offer further indication as to the historic use of the APE during this time.

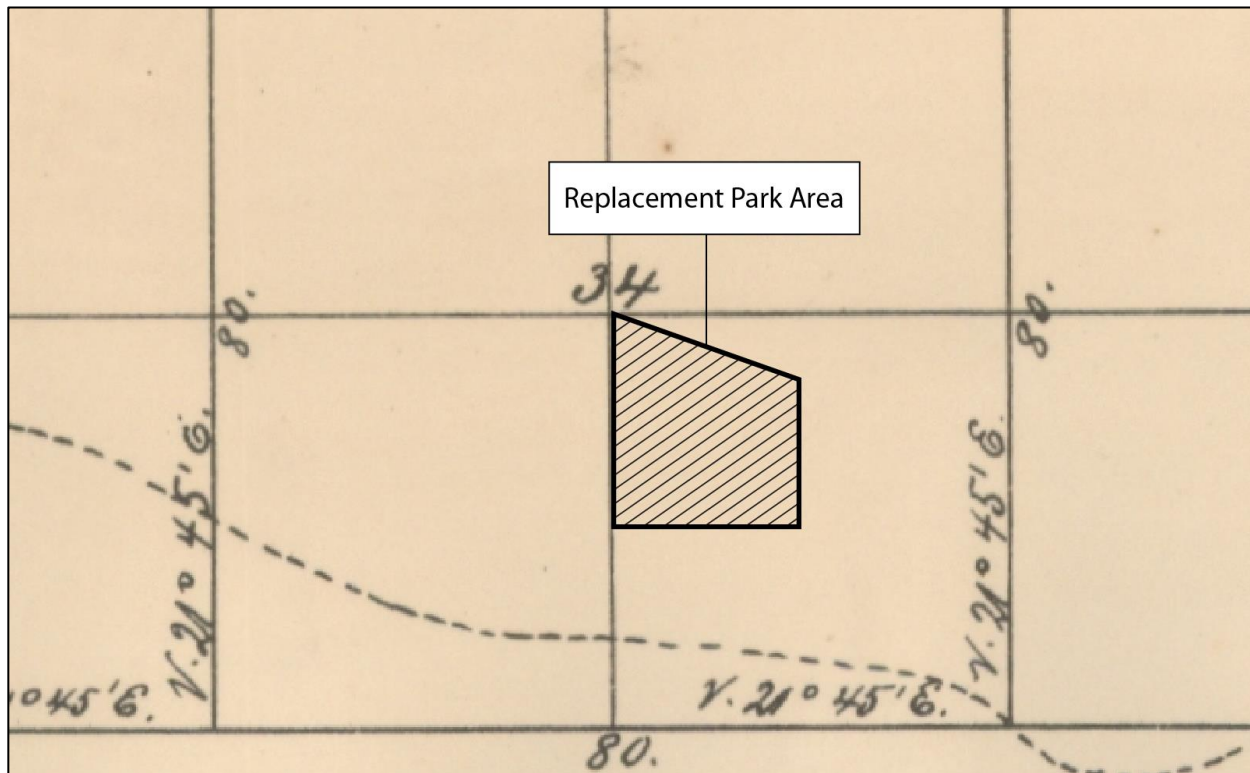


Figure 10. Portion of the 1865 GLO Cadastral Survey Plat Map, T13N, R18E detailing the location of the Replacement Park Area.

Historic aerial photography indicates that by 1949 there were several structures and/or buildings present at the southeast corner of the APE (Figure 11). At the northern half of the APE irrigation and/or water management appears to be present.



Figure 11. 1949 aerial detailing the Replacement Park Area. Note the two areas circled (in red) that appear to be the location of unidentified buildings and/or structures.

One of the buildings in the southeast portion of the APE was noted on the 1958 USGS topographic map (Figure 12). The USGS map was updated in 1974 and at that time another building, located nearer Spring Creek, was noted (Figure 13). This new building is located in the same location as buildings observed in the 1949 aerial. On the 1985 USGS no buildings are illustrated suggesting

that the buildings had since been demolished (Figure 14). A 1996 aerial confirms the buildings had been demolished by that time (Figure 15). According to Yakima County Assessor's Records, the property is currently owned by Congdon Development Co LLC.

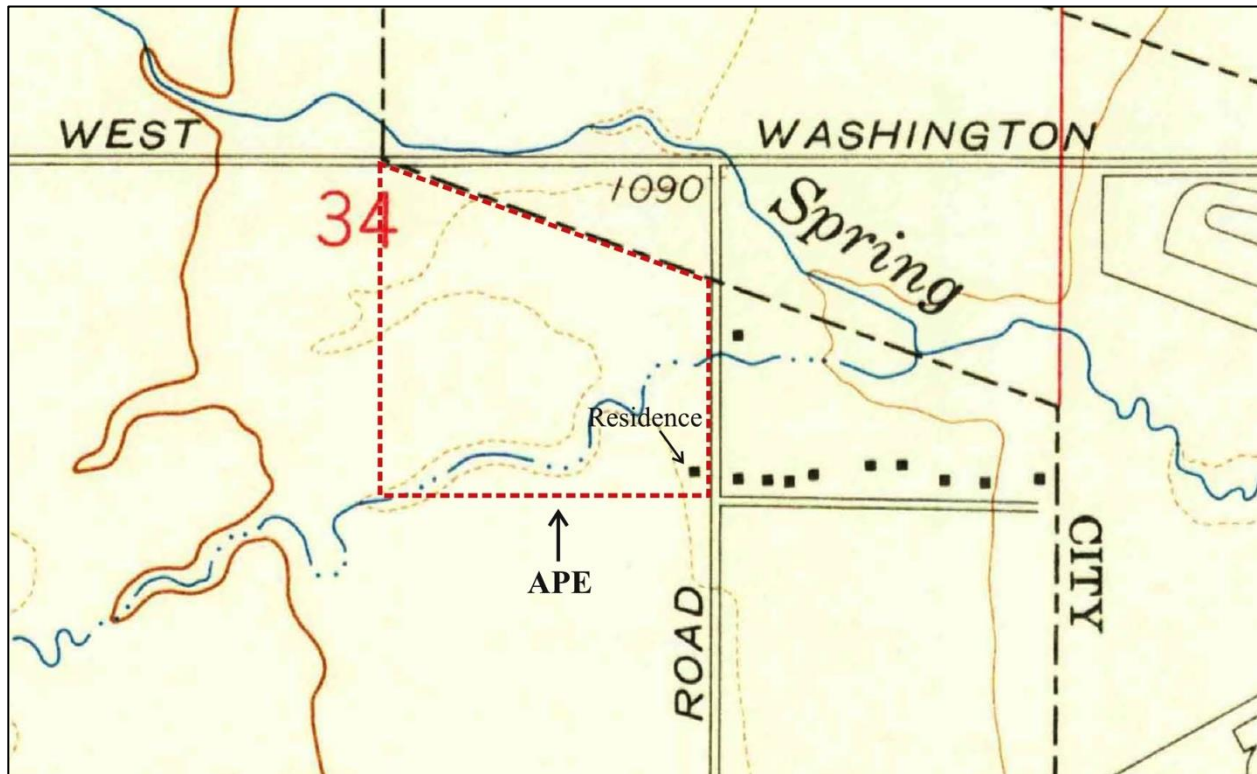


Figure 12. 1958 USGS detailing the Replacement Park Area. Note building near southeast corner of APE.

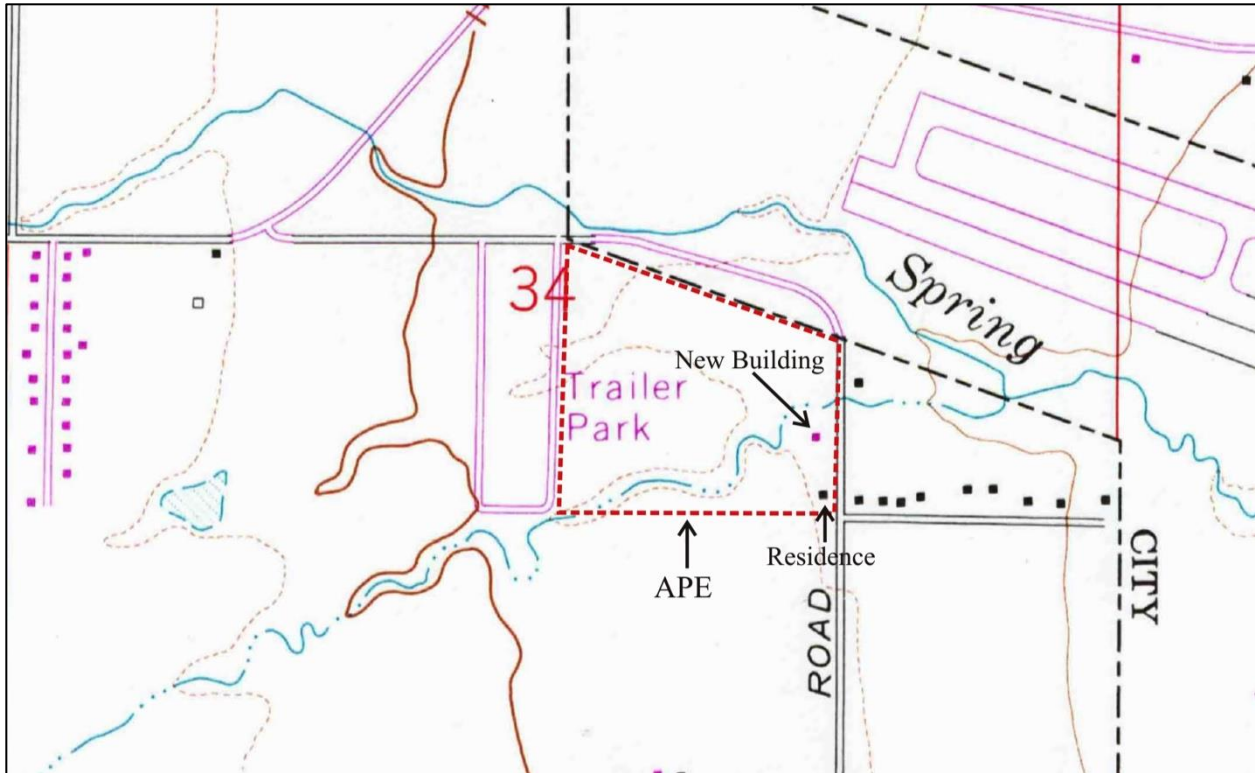


Figure 13. A portion of the 1974 USGS detailing the Replacement Park Area. Note additional building (pink) near southeast corner of APE.

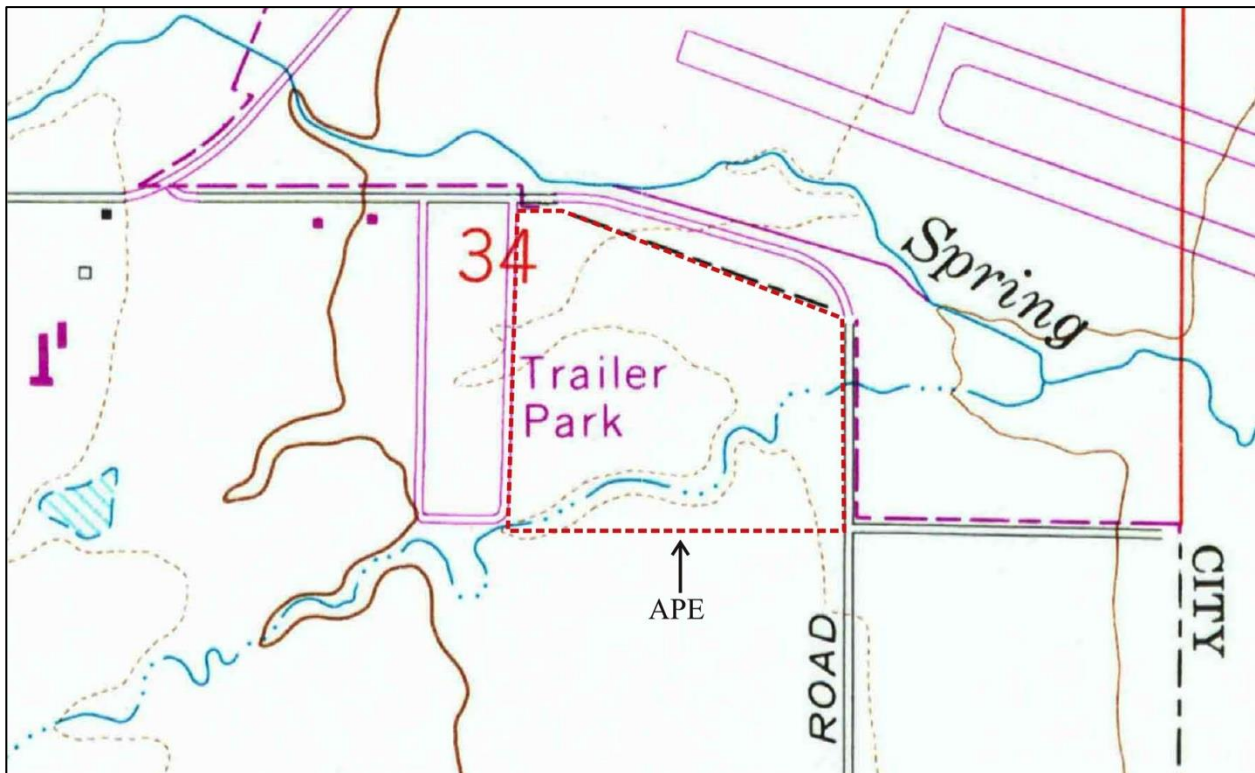


Figure 14. A portion of the 1985 USGS detailing the Replacement Park Area. Note no buildings are indicated in APE.



Figure 15. 1996 aerial detailing the Replacement Park Area. Note it appears that the buildings/structures near the southeast corner of the APE and much of the vegetation along Spring Creek have been removed.

Previous Cultural Resources Studies and Sites

Review of the DAHP's WISAARD database was conducted in March 2017. WISAARD is a restricted-access searchable Geographic information System that depicts locations of previously

recorded cultural resources surveys conducted post-1995, archaeological sites, historic sites, NRHP sites, and cemeteries / burials.

According to WISAARD, the Chesterley Park Conversion Area has not been previously surveyed for cultural resources. Nearest the Chesterley Park Conversion Area two cultural resources surveys have been conducted approximately 0.21 mile to the north. In 2015 a cultural resources survey was conducted prior to the conversion of a segment of railroad to recreational trail (Woody 2015). No new cultural resources were identified. In 1999 a cultural resources study was conducted for a fiber optic line (Fagen 1999). No cultural resources were identified in the area nearest the subject APE. As a result of these past studies in the vicinity of the Chesterley Park Conversion Area no archaeological or historical sites have been previously recorded. The nearest previously recorded archaeological site is 45YA844, a historic refuse scatter located 0.53 mile east near the railroad line. The nearest registered property is the “Alderson Barn” (45YA1128) located 0.81 mile southeast.

According to WISAARD, the Replacement Park Area has also not been previously surveyed for cultural resources. The nearest study was conducted for the Yakima Sports Complex located immediately south of the Replacement Park Area (Baldwin and Chambers 2015). The study identified one historic property, a residential farm (2210 S 38TH, Ahtanum, WA 98903). No archaeological or historical sites have been previously recorded in the Replacement Park Area. The nearest previously recorded archaeological site is 45YA1095 a historic late nineteenth-century to early twentieth century debris scatter/concentration site that was identified approximately 0.5 mile to the north. The site consists of domestic fragmentary bottles and glass fragments, tableware fragments, canning jar fragments, and miscellaneous metal artifacts (Orvald 2007). The site was located on a modified terrace 205 meters south of Wide Hollow Creek redeposited on recently bladed cobbly, gravelly sediments, presumably from excavation for the installed utilities (Orvald 2007).

EXPECTATIONS FOR CULTURAL RESOURCES

Based on review of the project scope and environmental and cultural contexts, both areas of the APE are considered to be located in areas of low probability for cultural resources.

The Chesterley Park Conversion area has been developed as a recreational field. There is no fresh water source in the APE; a canal runs along the western edge of the APE and the Naches River is located less than one-mile to the north. No archaeological or historical archaeology has been previously recorded in the APE. Historic documents indicate the Chesterley Park Conversion Area was previously utilized for orcharding and may have contained some buildings and/or structures that were likely associated with the operation of the orchard. The orchards, the buildings and/or structures have long been removed from the current APE and are no longer present.

The Replacement Park Area is currently undeveloped. A tributary of Spring Creek traverses the southern half of the APE. No archaeological or historical archaeology has been previously recorded in the APE. Historic documents indicate the APE was formerly owned by Congdon, a local orchard family. Orchards are not apparent in the APE on the reviewed historic documents

however buildings and/or structures were present at one time in the southeast corner of the APE; historic aerials have confirmed the buildings/structures have since been demolished.

If cultural resources were to be present in either area of the APE artifact types, based on the land use history, would likely represent historic agricultural and/or residential features. Precontact sites are not likely to be present as neither area of the APE is located near a stable fresh water source that would have supported long-term occupation. Considering little soil deposition has occurred locally and that both areas of the APE have been used historically for agriculture, it is likely any buried cultural materials and/deposits would be observable in exposed soils from past and recent tilling, plowing and/or pasturing.

FIELD INVESTIGATION

Field investigation was conducted in March 2017 by DA archaeologist Choya Davis during clear and cool weather conditions. Field investigation included pedestrian survey, visual reconnaissance, and subsurface testing. Pedestrian survey consisted of walking meandering transects across the APE and inspecting the general area for evidence of archaeological materials on the ground surface and/or topographical features that may indicate the presence/absence of buried archaeological deposits. Visual reconnaissance was generally conducted during pedestrian survey and consisted of examining the APE for aboveground resources, such as buildings and/or structures that might be present. Subsurface testing consisted of excavating shovel probes to identify subsurface soil conditions and to determine the presence/absence of buried cultural materials and/or deposits. SPs were placed judgmentally based on the project scope and available landforms/boundary markers. SPs were not excavated in areas that were obviously disturbed or where soils were obscured by pavement and/or contemporary buildings and structures. SPs measured approximately 40 to 50 centimeters (cm) in diameter and were excavated to a depth that represented proposed project construction in that location, within reason. Excavated sediments were screened through 1/4 inch mesh hardware and upon completion of excavation each probe was backfilled. Representative photographs were taken of each shovel probe. A log of sediment descriptions and contents are provided in Appendix A.

The APE consists of two separate areas, the Chesterley Park Conversion Area and the Replacement Park Area, each of which exhibits varying characteristics. At the Chesterley Park Conversion Area the APE has been developed and is currently utilized for recreation; the APE is currently covered in soccer turf and/or asphalt for the parking lot (Photo 1). As no construction was initially proposed at the Chesterley Park Conversion Area DA was requested to not conduct field investigation of this area.



Photo 1. Overview of Chesterley Park Area, view south.

At the Replacement Park Area the APE is characteristic of an abandoned agricultural area. The topography is largely flat with numerous small ponds, patches of marsh, and an unnamed tributary of Spring Creek running through the southern portion of the APE (Photos 2-3). Nearly all of this section of the APE was covered by grasses and shrubs. Standard transects were impractical due to ground saturation and, as such a GPS unit was utilized to insure that the entire area was surveyed and inspected. High water and vegetation rendered ground surface visibility extremely low (less than 1 per cent).



Photo 2. Overview of the Replacement Park Area, view southeast.



Photo 3. Overview taken from northwest corner of the Replacement Park Area, view southeast.

A total of 20 shovel probes were excavated at the Replacement Park Area (Figure 16). Shovel probes were oriented along north-south running transect lines, with transect lines spaced 90 meters apart. The number of shovel probes corresponding to each transect line varied from three to five shovel probes, with probes evenly spaced from project areas southern and northern boundaries. Observed sediments consisted of loosely-to-moderately compact silty loam ranging in color from dark brown to yellow brown with little to no discernable stratigraphy. Rock content was extremely low throughout the project area (Photo 4).

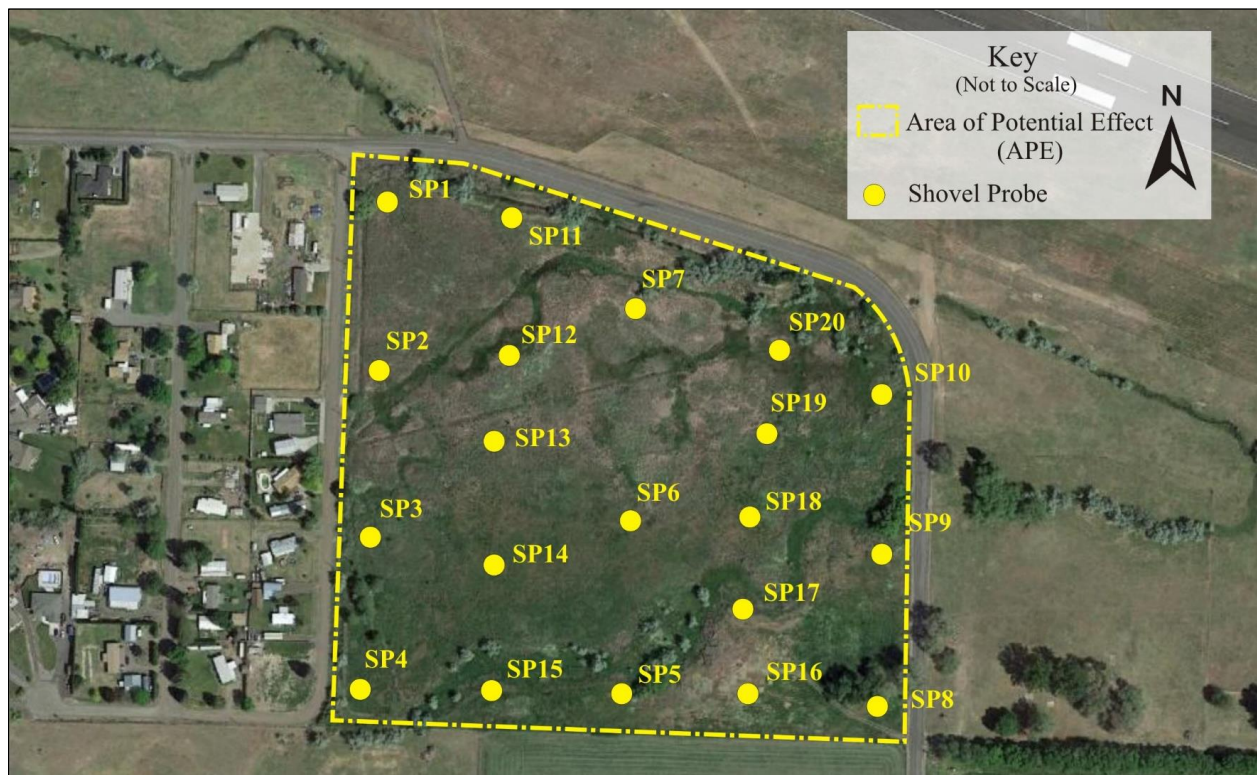


Figure 16. Location of shovel probes excavated within the Replacement Park Area.



Photo 4. Shovel Probe (SP1) showing a typical sediment profile.

No precontact cultural materials were observed during field investigation. On the ground surface, a variety of modern and temporally non-diagnostic items such as including wooden boards, posts, a brown glass Clorox jug, beer cans, plastic of plastic, and other pieces of trash were observed. Cultural materials recovered from shovel probes consisted of one shotgun shell (Photo 5), three pieces of colorless glass, one piece of corroded iron (Photo 6), and one plastic fragment. None of these items displayed temporally diagnostic attributes.



Photo 5. SP3 Shotgun shell recovered from 0-30 cmbs.



Photo 6. SP9 glass fragment and piece of corroded iron.

In the north-central portion of the Replacement Park Area, a concrete drainage was observed in a flooded area (Photos 7-8). The drainage was located within a linear feature that appears in the 1949 aerial. The linear feature likely functions for water management but review of documents made available by City of Yakima GIS and WISAARD did not identify the feature as part of a greater system. Additionally, piles of uprooted trees, milled lumber and associated iron fittings were observed near the southeast corner of the APE (Photo 9-10). The milled lumber appears to be mostly posts that may have been used for fencing. The piles of trees and lumber are in the vicinity of the where the former buildings and structures were located according to the reviewed historic documents. The general location of the drainage feature and piles of trees and lumber are illustrated in Figure 17.



Photo 7. Concrete drainage feature encountered in the north-central portion of the Replacement Park Area.



Photo 8. Concrete drainage feature encountered in the north-central portion of the Replacement Park Area.



Photo 9. Overview of pile of uprooted trees and milled lumber as encountered near the southeast corner of the Replacement Park Area.



Photo 10. Overview of pile of uprooted trees as encountered near the southeast corner of the Replacement Park Area.

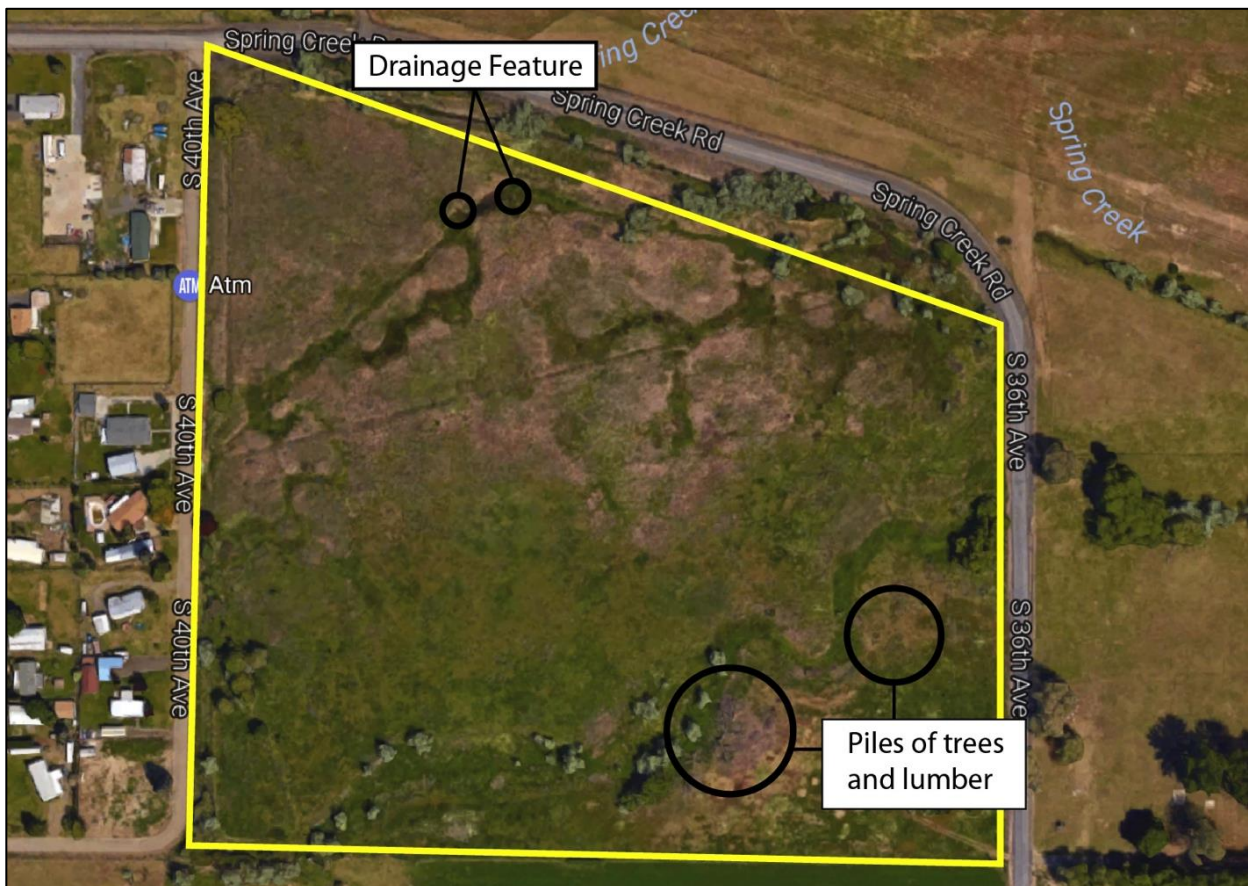


Figure 17. Modern aerial detailing the location of the drainage feature and piles of trees and lumber within the Replacement Park Area. Google Earth image, adapted by DA.

RESULTS AND RECOMENDATIONS

DA's cultural resources assessment for this project consisted of background review, field investigation, and production of this report. Background review determined the project area to be located in an area of low probability for historic properties. Field investigation included pedestrian survey, visual reconnaissance and subsurface testing of the Replacement Park Area. DA was requested not to conduct field study of the Chesterley Park Conversion Area as we were originally advised that no construction would be occurring in that area.

No artifacts, features, or potentially eligible historic properties were encountered in the Replacement Park Area portion of the APE. As such, DA recommends a determination of "No Historic Properties Affected" for the Replacement Park Area portion of the APE. DA further recommends that if development of the Chesterley Park Conversion Area is to include ground disturbing activities that field investigation be adequately conducted to ensure that no potential buried cultural resources are adversely affected.

In the event that archaeological materials are encountered during the project, work should be halted in the vicinity of the find and an archaeologist should immediately be notified. Work would only proceed after the materials is inspected and assessed. At that time the appropriate persons are to be notified of the exact nature and extent of the resource so that measures can be taken to secure them. In the event of inadvertently discovered human remains or indeterminate bones, work must stop immediately. Any remains should be covered and secured against further disturbance; communication should then be established with Yakima Police, the State Physical Anthropologist at DAHP, and the appropriate Tribal Historic Preservation Officer(s).

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APPENDIX A: SHOVEL PROBE INDEX

DEPTH BELOW SURFACE (CM)	SEDIMENT DESCRIPTION	CONTENTS
SP1		
0-79	Brown silty loam. No rocks.	No cultural material.
79-99	Brown silty loam with trace inclusions of white silt.	No cultural material.
Notes: No rocks.		
SP2		
0-94	Dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 87cm.		
SP3		
0-85	Dark brown silty loam. No rocks.	Shotgun shell recovered from 0-30 cm.
85-99	Dark brown silty loam. Low rounded pebble and gravel content.	No cultural material.
Notes:		
SP4		
0-100	Dark brown silty loam with very low rounded gravel content.	No cultural material.
Notes:		
SP5		
0-9	Dark brown silty loam with moderate root content and no rocks.	No cultural material.
9-100	Yellow-brown moderately compact silty loam. No rocks.	No cultural material.
Notes:		
SP6		
0-99	Yellow-brown moderately compact silty loam with one rounded cobble.	No cultural material.
Notes:		
SP7		
0-60	Moist and claggy brown silty loam. No rocks.	No cultural material.
Notes: Water at 55cm. No rocks.		
SP8		
0-100	Dark brown silty loam with very low rounded gravel content.	<p>1 colorless glass fragment with stippling measuring 1 in. x 1/2 in. x 1/8 in. thick.</p> <p>1 colorless glass finish fragment (likely a mason jar finish) measuring 1 1/4 in. x 1 in. x 1/8 in. thick.</p>

DEPTH BELOW SURFACE (CM)	SEDIMENT DESCRIPTION	CONTENTS
SP9		
0-100	Brown silty loam with very low rounded pebble content.	1 colorless glass fragment measuring 1 in. x 3/4 in. x 1/8 in. thick. 1 piece of highly corroded iron measuring 1 3/8 in. long x 1/4 in diameter.
Notes: A cluster of boards and posts was observed west of and adjacent to SP9. The cluster is spread over an area measuring 15 meters east-west x 8 meters north-south and consists of approximately 24 boards and posts, some with corroded round nails and some with non-corroded galvanized round nails. Boards and posts range in length from 80 in. to 14 feet long, and include 5 1/2 in. x 1 1/2 in. boards and 5 3/4 in. x 5 3/4 in. posts.		
SP10		
0-57	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 45cm.		
SP11		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP12		
0-60	Dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 50cm.		
SP13		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP14		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP15		
0-100	Dark brown silty loam. No rocks.	Plastic item measuring 3/4 in. tall x 1 1/4 in diameter recovered from 0-30cm
SP16		
0-100	Dark brown silty loam. No rocks.	No cultural material.
SP17		
0-40	Brown silty loam. No rocks.	No cultural material.
40-100	Yellow-brown moderately compact silty loam with low rounded gravel content.	No cultural material.
SP18		
0-105	Brown silty loam. No rocks.	No cultural material.
SP19		
0-63	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 54 cm.		
SP20		
0-59	Moist and claggy dark brown silty loam. No rocks.	No cultural material.
Notes: Water at 55 cm.		