

# **Tumwater Operations & Maintenance Facility**

## **Habitat Conservation Plan**

**for the threatened Olympia subspecies of the Mazama pocket  
gopher (*Thomomys mazama pugetensis*) in Tumwater, Washington**

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## LIST OF ACROYNMS, ABBREVIATIONS, AND FREQUENTLY USED TERMS

Applicant	The legal entity applying for an Incidental Take Permit. The Applicant for this project and owner of the subject property is the City of Tumwater Transportation & Engineering Department.
CFR	Code of Federal Regulations
Changed Circumstances	Changes in circumstances affecting a species or geographic area covered by a conservation plan or conservation agreement that can reasonably be anticipated by plan or agreement among developers and USFWS, and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events).
Commission	Washington Fish and Wildlife Commission. The Washington Fish and Wildlife Commission's primary role is to establish policy and direction for fish and wildlife species and their habitats in Washington and monitor WDFW's implementation of the goals, policies, and objectives established by the Commission.
Covered Activities	Activities that a permittee will conduct for which take is authorized in an ESA section 10 permit. The Covered Activities include all actions in the plan area that are 1) likely to result in incidental take, 2) are reasonably certain to occur over the life of the permit, and 3) are under the Applicant's control.
Covered Species	Species for which incidental take is authorized in an incidental take permit and is adequately covered in a habitat conservation plan. The proposed covered species that is the subject of this habitat conservation plan is the Olympia subspecies of the Mazama pocket gopher ( <i>Thomomys mazama pugetensis</i> ), also referred to as the Olympia pocket gopher.
EA	(NEPA definition) Environmental Assessment. A concise public document, prepared in compliance with NEPA, that briefly discusses the purpose and need for an action, alternatives to such action, and provides sufficient evidence and analysis of impacts to determine whether to prepare an Environmental Impact Statement or Finding of No Significant Impact (40 CFR 1508.9).
ESA	The Endangered Species Act of 1973, as amended, (16 U.S.C. 1531-1543; 87 Stat 884) (50 CFR 17.3).
FR	The Federal Register is the official journal of the Federal government that contains most routine publications and public notices of government agencies. The Federal Register is compiled by the Office of the Federal Register (within the National Archives and Records Administration) and is printed by the Government Printing Office. Section 10(c) of the ESA

requires each application for an exception or permit under Section 10 to be published in the Federal Register.

Harm	Defined by USFWS to mean “an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns such as breeding, feeding, or sheltering” (50 CFR 17.3).
HCP	Habitat Conservation Plan
High quality native grassland	Areas with at least 30% cover of herbaceous vegetation, which include native annual and perennial grasses and forbs, less than 25% shrub cover, and less than 5% tree cover.
ITP	Incidental Take Permit. A permit issued under section 10(a)(1)(B) of the ESA to a non-Federal party undertaking an otherwise lawful project that might result in the take of an endangered or threatened species. Application for an incidental take permit is subject to certain requirements, including preparation by the permit applicant of a conservation plan, generally known as a "Habitat Conservation Plan" or "HCP."
NEPA	The National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321 et seq.). A Federal statute that requires Federal agencies to consider the environmental impacts of their discretionary proposed actions, and for significant environmental actions seeking public input on decisions and implementation of Federal actions.
NMFS	National Marine Fisheries Service
NRCS	Natural Resources Conservation Service
Permit Area	The geographic area where the incidental take permit applies. It includes the area under the control of the applicant/permittee(s) where covered activities will occur. The permit area must be delineated in the permit and be included within the plan area of the HCP.
Plan Area	The specific geographic area where covered activities described in the HCP, including mitigation, may occur. The plan area must be identified in the HCP. Plan areas must include at least the permit area but often include lands outside of the permit area.
RCW	Revised Code of Washington
RPA	Reserve Priority Areas are identified as areas with higher Mazama pocket gopher habitat value and restoration potential identified by USFWS to aid in recovery planning.

Take	“...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct” (ESA Section 3).
Threatened species	Any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range (ESA section 3(20); 50 CFR 424.10(m)).
Unforeseen circumstances	Changes in circumstances affecting a species or geographic area covered by a conservation plan or agreement that could not reasonably have been anticipated by plan or agreement developers and USFWS at the time of the conservation plan's or agreement's negotiation and development, and that result in a substantial and adverse change in the status of the covered species (50 CFR 17.3).
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife

## Chapter 1 Introduction

### 1.1 Overview and Background

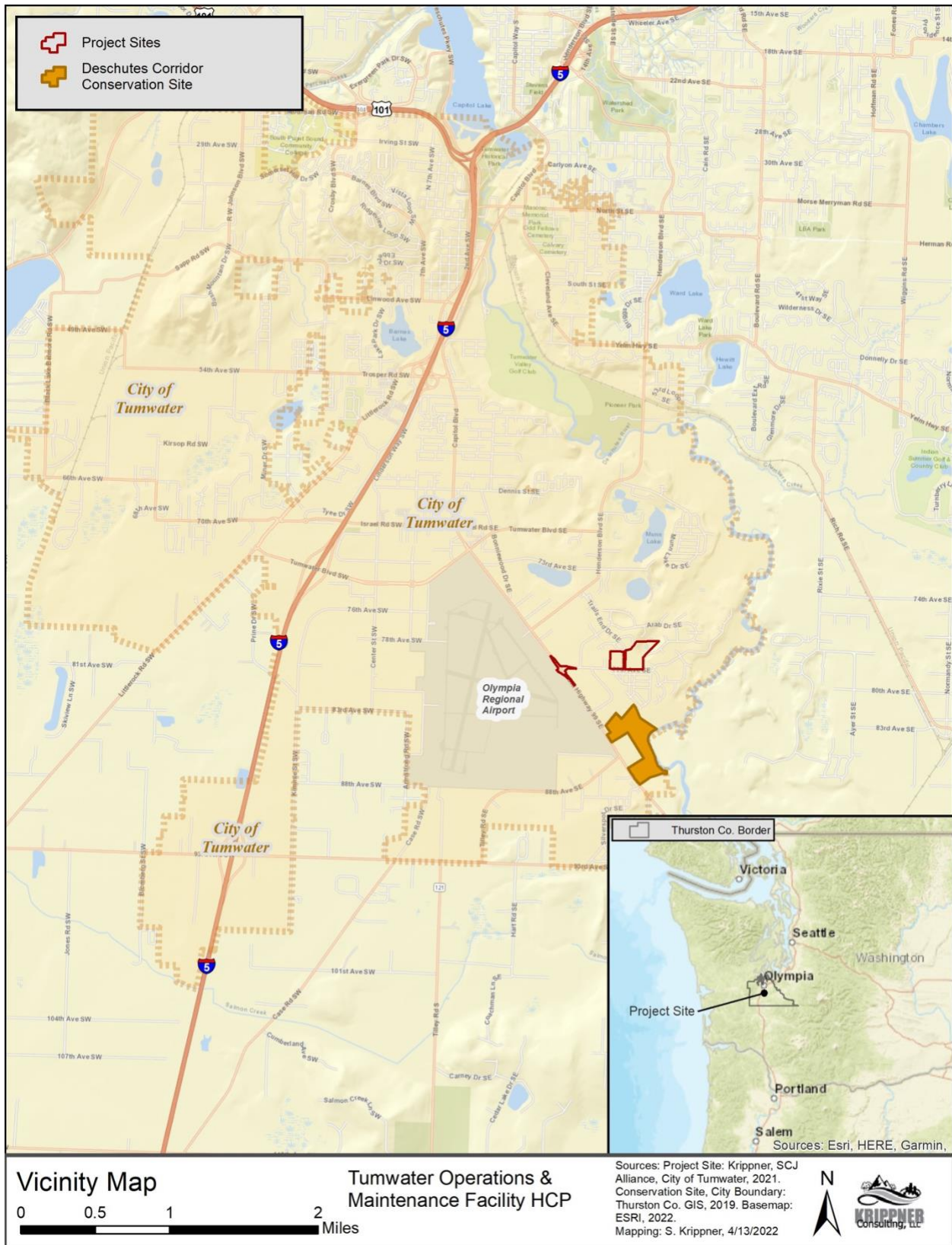
City of Tumwater Transportation & Engineering Department (the Applicant) owns Parcels 12712320400 and 12712320300, 7842 Trails End Drive SE and 1500 79<sup>th</sup> Avenue SE, respectively, and is proposing to construct the new Tumwater Operations & Maintenance Facility on these parcels in Tumwater, Washington (see Figure 1, “Vicinity Map” and Figure 2, “Aerial View”). This Habitat Conservation Plan (HCP) has been prepared to cover construction activities related to this facility including 79<sup>th</sup> Avenue SE frontage improvements and a roundabout at the intersection of Old Highway 99 SE and 79<sup>th</sup> Avenue SE required for truck access (see Figures 1 and 2). City of Tumwater Parks & Recreation is also proposing to construct park facilities on Parcel 12712320300, east of Trails End Drive SE. Park facilities proposed on the project site are also covered by this HCP.

The Applicant recognizes that the project site is occupied by and contains habitat for the Olympia subspecies of Mazama pocket gopher (*Thomomys mazama pugetensis*, hereafter Olympia pocket gopher), a species listed as threatened under the Endangered Species Act of 1973, as amended (87 Stat. 884; 16 U.S.C. 1531 et seq.) (ESA). The Applicant acknowledges that it will not be possible to completely avoid adverse effects to this species and its habitat while engaging in the otherwise lawful construction on the project site. The Applicant prepared this HCP in partial fulfillment of requirements for an incidental take permit (ITP) from U.S. Fish and Wildlife Service (USFWS) in accordance with Section 10(a)(1)(B) of the ESA. An ITP provides exceptions to the prohibitions against “take” of species listed under the ESA under specified conditions in compliance with applicable laws and regulations.

The Applicant anticipates the construction period to start in 2022 and be completed by 2027. The Tumwater Operations & Maintenance Facility will include seven buildings (Buildings A through G); parking; access roads; staging areas for materials; a rain garden; and landscaping (see Figure 3, “Site Plan Alternative A”). The park facilities are anticipated to include a paved trail; basketball and tennis courts; open space; restrooms and picnic areas. The new roundabout planned at the intersection of Old Highway 99 and 79<sup>th</sup> Avenue SE includes storm water facilities.

The Applicant proposes a conservation program intended to minimize and mitigate unavoidable impacts to this species and its habitat. The project site is 26.2 acres total in size. The total area to be affected by construction is estimated to be 19.6 acres, and approximately 8.6 acres contains occupied and/or suitable Olympia pocket gopher habitat. The Applicant proposes to mitigate for unavoidable impacts to this species and its habitat by purchasing 8.6 acres of offsetting mitigation from the USFWS-approved Deschutes Corridor conservation site that is occupied by Olympia pocket gophers (see Figures 1 and 2).





**Figure 1. Vicinity Map**



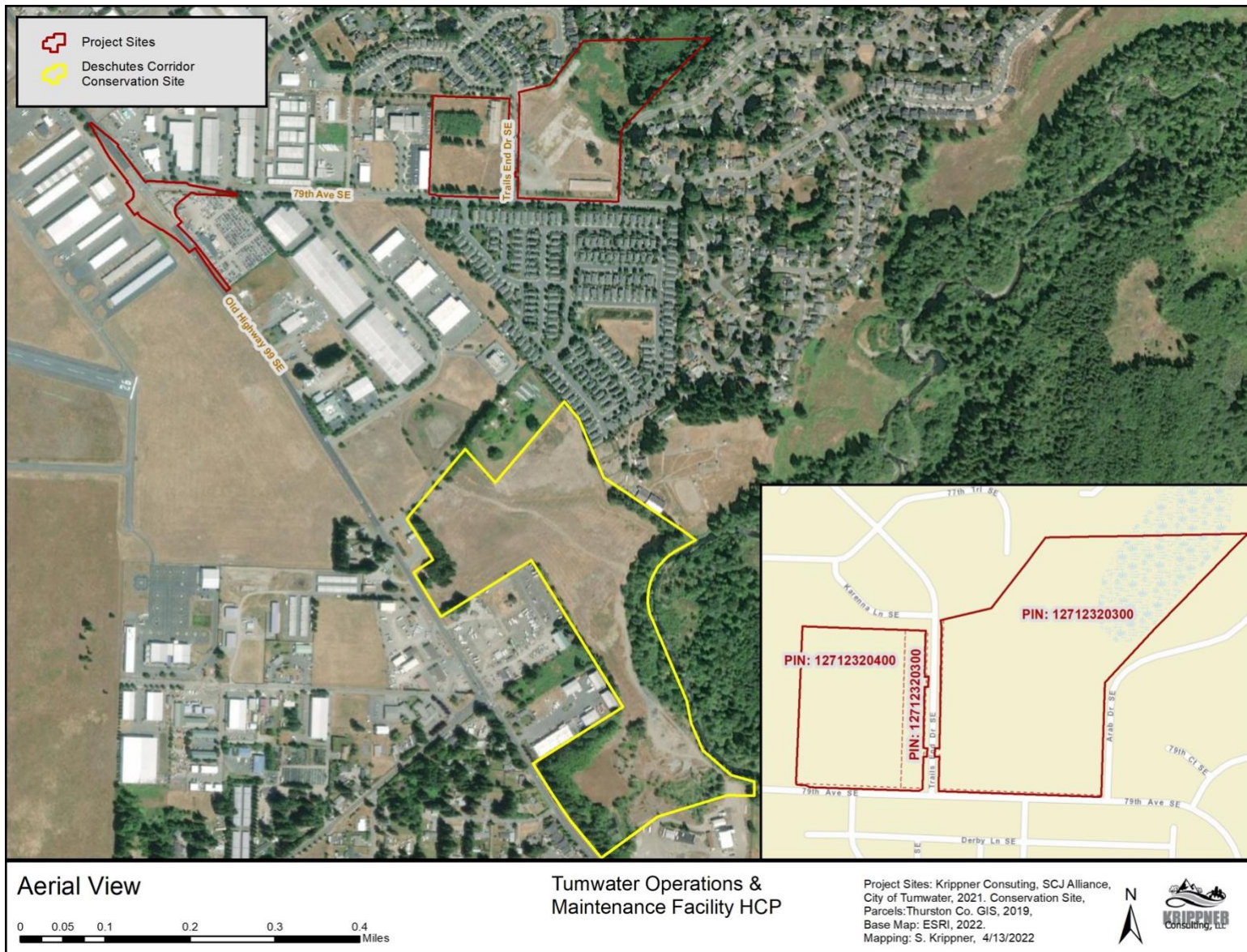
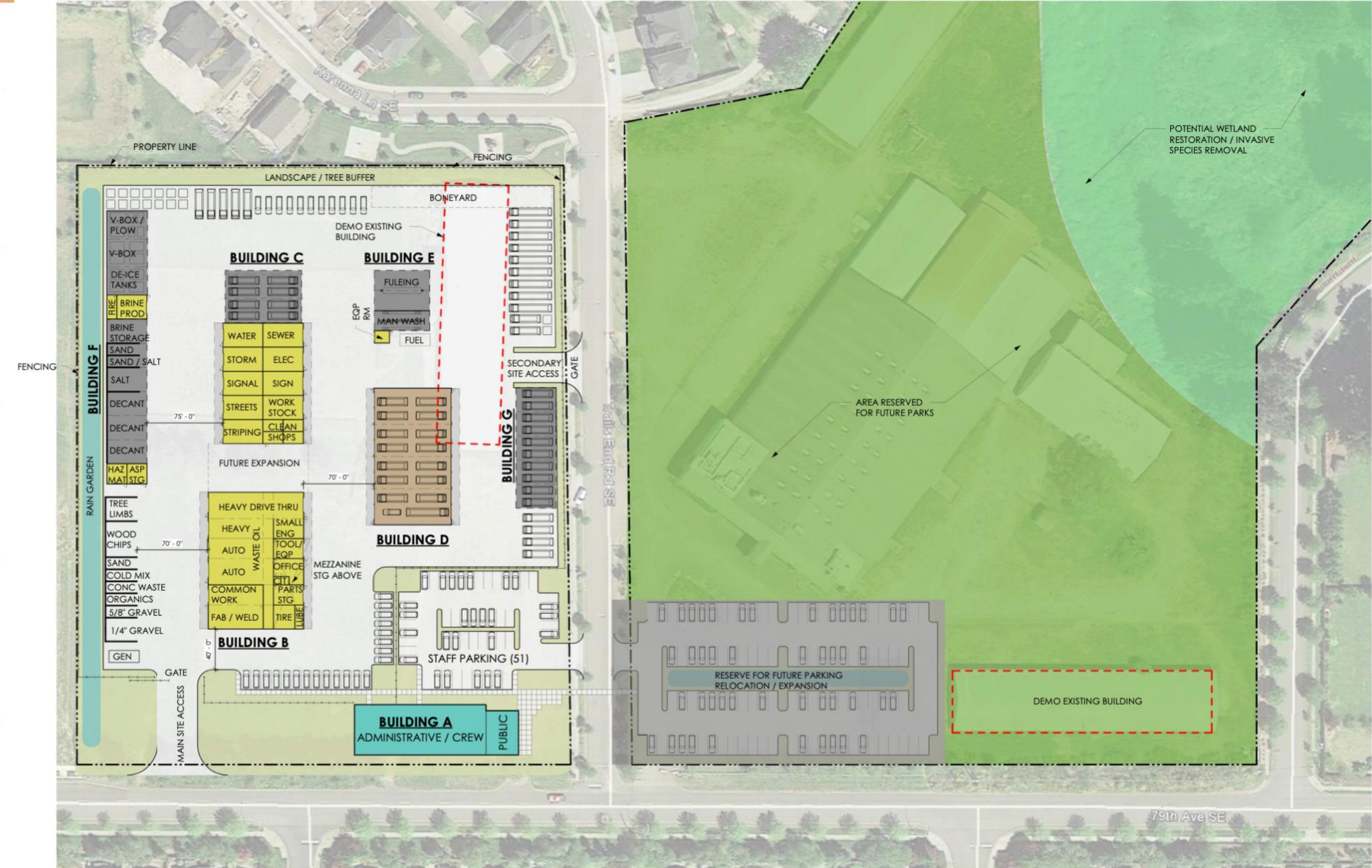


Figure 2. Aerial View



<b>Building A - Admin / Crew / Public</b>	
Enclosed:	8,000 SF
Covered:	0 SF
<b>Total:</b>	<b>8,000 SF</b>
<b>Building B - Fleet Maintenance</b>	
Enclosed:	13,000 SF
Covered:	0 SF
<b>Total:</b>	<b>13,000 SF</b>
<b>Building C - Shops</b>	
Enclosed:	9,600 SF
Covered:	4,000 SF
<b>Total:</b>	<b>13,600 SF</b>
<b>Building D - Vehicle Storage</b>	
Enclosed:	10,400 SF
Covered:	0 SF
<b>Total:</b>	<b>10,400 SF</b>
<b>Building E - Fuel/Wash</b>	
Enclosed:	200 SF
Covered:	3,300 SF
<b>Total:</b>	<b>3,500 SF</b>
<b>Building F - Material/Equip Storage</b>	
Enclosed:	1,800 SF
Covered:	9,100 SF
<b>Total:</b>	<b>10,900 SF</b>
<b>Building G - Vehicle Storage</b>	
Enclosed:	0 SF
Covered:	4,800 SF
<b>Total:</b>	<b>4,800 SF</b>
<b>Grand Total:</b>	<b>64,200 SF</b>
<b>Site Area</b>	
Disturbed:	290,000 SF
<b>Acre:</b>	<b>6.7 AC</b>

- 12' x 45' - X-LARGE VEHICLE
- 12' x 30' - LARGE / MEDIUM VEHICLE
- 10' x 20' - SMALL VEHICLE
- 10' x 10' - X-SMALL EQUIPMENT
- ENCLOSED SHOPS / MISC
- ENCLOSED VEHICLE PARKING
- ENCLOSED ADMIN, CREW, PUBLIC
- CANOPY COVERED STORAGE



# City of Tumwater Public Works

## Maintenance & Operations Facility 12/14/2020

### SITE ALTERNATIVE A WEST PARCEL

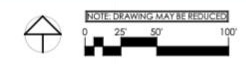


Figure 3. Site Plan Alternative A

## **1.2 Purpose and Need**

This HCP was prepared to meet statutory, regulatory, and policy requirements for issuance of an ITP. The USFWS may authorize incidental take by a non-Federal entity through the issuance of an ITP in accordance with Section 10(a)(1)(B) of the ESA. As part of the application for an ITP, the Applicant must prepare an HCP. The purposes of this HCP are to:

1. Describe the anticipated impacts of the project and the conservation program on the covered species and its habitat;
2. Establish measures to ensure that any take associated with the project and conservation program will be incidental;
3. Ensure that the impacts of the taking will be minimized and mitigated to the maximum extent practicable, including provisional procedures to deal with changed and unforeseen circumstances;
4. Ensure that mitigation for impacts to listed species will result in a conservation value to the species that fully offsets the impacts;
5. Ensure that adequate funding for implementation of the conservation program will be provided; and
6. Ensure that the take of listed species will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

The Applicant needs an ITP because it will not be possible to completely avoid all adverse effects to the threatened Olympia pocket gopher and its habitat while engaging in this otherwise lawful project. Activities that result in take of listed species in the absence of an ITP constitute a violation of the prohibitions in Section 9 of the ESA.

## **1.3 Permit Duration**

The Applicant anticipates that the project will be completed within 6 years of issuance of the ITP. However, to allow for possible project delays, the Applicant requests issuance of a renewable ITP with an expiration date of 10 years. If the proposed project activities are not complete before the permit expires, the Applicant will renew the permit to ensure coverage for the remaining covered activities. The permit renewal process is described in Section 6.6 of this document.

## **1.4 Plan Area**

The Plan Area includes areas where covered activities described in this HCP will occur on the project site and an 8.6-acre portion of the 51-acre Deschutes Corridor conservation site where offsetting mitigation will be provided (see Figure 2).

## **1.5 Permit Area**

The Permit Area is a subset of the Plan Area and is limited to the 26.2-acre project site that includes the intersection of Old Highway 99 and 79<sup>th</sup> Avenue SE where Covered Activities and resulting incidental take will occur.

The permit area occurs within the plan area and is defined as the geographic area of the impacts of the activities for which the ITP is requested within the plan area (i.e., the Covered Activities). It includes the area under the control of the Applicant where covered activities will occur for the operations & maintenance and parks facilities on Parcels 12712320400 and 12712320300 and the adjacent 79<sup>th</sup> Avenue SE frontage areas, and for the roundabout at the intersection of Old Highway 99 SE and 79<sup>th</sup> Avenue SE, as shown in Figures 1 through 3.

## **1.6 Covered Species**

The Applicant proposes to cover the Olympia pocket gopher for incidental take because this species and its habitat are found on the project site.

## **1.7 Regulatory Framework**

### **1.7.1 Endangered Species Act**

The U.S. Congress enacted the ESA to protect plants and animals threatened with or in danger of extinction. The USFWS is responsible for implementing the ESA for those species under its jurisdiction. Except where take is exempted under Section 4(d) of the ESA or approved pursuant to Section 7 or 10, take of any fish or wildlife species that is federally listed as threatened or endangered is prohibited under Section 9 of the ESA.

Section 3 of the ESA defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct” (16 United States Code [USC] § 1532 (19)). The term “harm” is defined to include any act “which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 C.F.R. § 17.3).

Section 10 of the ESA allows non-Federal Applicants, under certain terms and conditions, to incidentally take ESA-listed species that would otherwise be prohibited under Section 9. When a non-Federal landowner or other non-Federal entity wishes to proceed with an activity that is legal in all other respects, but that may result in the incidental taking of a listed species, an ITP is required. Incidental take is defined as take that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity” (50 CFR § 17.3). Section 10 of the ESA requires that an Applicant submit an HCP as a component of an application for an ITP. The USFWS is required to verify that the HCP complies with the provisions of the ESA [50 CFR 17.22 (b)(2)] prior to issuance of an ITP.

Section 7(a)(2) of the ESA requires each Federal agency to ensure that any action authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse

modification of designated critical habitat (16 USC § 1536 (a)(2)). Issuance of an ITP is a Federal action that requires USFWS consultation in accordance with Section 7.

An HCP submitted in support of a Section 10 permit application must specify (16 U.S.C. § 1539(a)(2)(A)(i)-(iv); 50 C.F.R. § 17.22(b)(1)(iii)):

- The impact that will likely result from such taking;
- What steps the Applicant will take to monitor, minimize, and mitigate such impacts, the funding that will be available to implement such steps, and the procedures to be used to deal with unforeseen circumstances;
- What alternative actions to such taking the Applicant considered and the reasons why such alternatives are not proposed to be utilized; and
- Such other measures that the Director (of USFWS) may require as being necessary or appropriate for purposes of the plan.

To issue an incidental take permit, USFWS must find that (16 U.S.C. § 10(a)(2)(B); 50 C.F.R. §§ 17.22(b)(2) and 17.32(b)(2)):

- The taking will be incidental;
- The Applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such takings;
- The Applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided;
- The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- The measures, if any, required under paragraph (b)(1)(iii)(D) of this section will be met; and
- (The Director) has received such other assurances as he or she may require that the plan will be implemented.

### **1.7.2 National Environmental Policy Act**

The National Environmental Policy Act of 1969, as amended (NEPA) (42 U.S.C. § 4321 et seq.), requires that Federal agencies analyze and publicly disclose the social, economic and environmental effects associated with “major Federal actions” (§ 4332). The issuance of an ITP under Section 10(a)(1)(B) of the ESA is considered a “major Federal action” and is therefore subject to NEPA compliance. The Applicant understands that USFWS is required to complete a NEPA analysis of the effects of issuing the requested permit on the “human environment”, including the incidental take authorized by permit issuance and the effects associated with



implementation of an HCP. The results of this analysis will be documented in either an Environmental Action Statement supporting a determination that an action can be categorically excluded from further analysis, an Environmental Assessment (EA) supporting a Finding of No Significant Effect, or an Environmental Impact Statement resulting in a Record of Decision.

### **1.7.3 National Historic Preservation Act**

Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC § 40 et seq.) (NHPA), requires Federal agencies to take into account the effects of their undertakings on properties eligible for inclusion in the National Register of Historic Places. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a Federal agency; including those carried out by or on behalf of a Federal agency; those carried out with Federal financial assistance; those requiring a Federal permit, license or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a Federal agency. “Properties” are defined as “cultural resources,” which includes prehistoric and historic sites, buildings, and structures that are listed or eligible for listing in the National Register of Historic Places. The issuance of an ITP is an undertaking subject to compliance with this statute, and the Applicant understands that USFWS must consult with the Regional Historic Preservation Officer and others as needed to secure NHPA clearance prior to issuing any permit.

### **1.7.4 Other Relevant Laws and Regulations**

The Applicant understands that an ITP is valid providing the proposed project remains in compliance with all relevant Federal, state, and local laws, regulations, and ordinances and acknowledges that he is responsible for ensuring that that the proposed project meets all applicable requirements.

The Washington Fish and Wildlife Commission (Commission) is the supervising authority for the Washington Department of Fish and Wildlife (WDFW). The Commission’s primary role is to establish policy and direction for fish and wildlife species and their habitats in Washington and monitor implementation of the goals, policies, and objectives established by the Commission. The Commission also classifies wildlife and establishes the basic rules and regulations governing the time, place, manner, and methods used to harvest or enjoy fish and wildlife. The Washington Administrative Code (WAC) defines endangered as:

*“any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state”* (WAC 232-12-297, § 2.4);

and defines threatened as:

*“any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats”* (WAC 232-17-297, § 2.5).

The Commission designated the Mazama pocket gopher in the state as threatened in 2006 (WAC 232-12-011[1]). This designation classifies the species as protected wildlife (WAC 121-12-011)

subject to regulation under the Revised Code of Washington (RCW 77.12). Unlawful taking of species designated as threatened by the Commission is prohibited under state law (RCW 77.15.130).

Washington State Code provides that taking of endangered and threatened fish and wildlife is not unlawful if authorized by a permit issued under the ESA (RCW 77.15.130(1)(c)(ii)). The Applicant will satisfy Washington State prohibitions against taking state-listed species by securing an ESA permit authorizing incidental take of the federally-listed Olympia pocket gopher.

The Washington State Environmental Policy Act (RCW 43.21C) and its implementing regulations (WAC 197-11) may require review by City of Tumwater or other local entities to ensure that any permits or authorizations associated with the project identify possible environmental impacts resulting from governmental decisions.

## **Chapter 2 Project Description and Covered Activities**

### **2.1 Project Description**

The Applicant is proposing to construct the following facilities during the permit term:

- Seven operations & maintenance buildings, associated parking, access roads, frontage improvements, utilities, materials staging areas, rain garden, and landscaping;
- Park features including trails, tennis and basketball courts, restrooms, picnic areas, and open space areas; and
- A roundabout and associated stormwater facilities at the intersection of Old Highway 99 SE and 79<sup>th</sup> Avenue SE to accommodate trucks traveling to and from the new operations & maintenance facility.

Construction of the new roundabout and road frontage area improvements are expected to begin in 2022 or 2023. These initial project activities are anticipated to take 6 to 9 months to complete. Construction of the new operations & maintenance and parks facilities may occur simultaneously or following these initial project activities. The operations & maintenance facility is expected to take up to 24 months to complete. Parks facilities are anticipated to take 6 months to complete.

The Applicant has determined that the activities described here cannot completely avoid impacts to listed species or their habitats on the project site.

### **2.2 Covered Activities**

Covered activities include actions related to construction of new facilities on the project site. The steps required for the development of the operations & maintenance facility follow this general sequence of events. Most of these steps will also be followed for construction of the roundabout and park facilities:

- 1) Initial site studies are conducted for planning and permitting purposes. Initial land surveys can include soil testing and ground water monitoring, requiring excavation of test pits up to 20 feet deep. Vegetation clearing may occur for survey access. A backhoe is



normally used for excavating test pits. Ground water monitoring wells may also be installed for site engineering purposes. Pits are filled again following data collection.

- 2) Temporary staging areas for construction management trailers, equipment storage, aggregate, topsoil, and other construction-related requirements are set-up in already developed areas.
- 3) Temporary construction fencing is installed.
- 4) The two remaining vacant buildings on the facility site are demolished.
- 5) Vegetation is cleared where facilities are planned. Equipment that may be used for vegetation clearing includes mowers, brush cutters, rotary cutters, chain saws, chippers, and stump grinders.
- 6) Storm water management controls, such as straw wattles, sediment fencing and infiltration basins, may be installed in the project area before or during construction. Creation of temporary erosion control features such as infiltration basins may require excavation and grading.
- 7) Topsoil is removed and stockpiled for site restoration. Trenches are excavated for installing underground utilities. Soils on the site are graded and leveled by cut and fill in accordance with approved project plans. Equipment used for these tasks includes graders, excavators, and dump trucks.
- 8) Permanent stormwater facilities are installed. Rain gardens are planned for the operations & maintenance facility. Stormwater at the project site may also be managed with bioswales, French drains, dispersal trenches, infiltration basins, or catchment basins.
- 9) Underground and above ground utility lines, such as for water, sewer, cable, fiber, and electricity, are installed or relocated. Lighting is also installed.
- 10) Gravel fill material is spread and compacted for parking lot, materials staging area, roadway, sidewalk, tennis court, and basketball court surfaces. New surfaces are paved. Equipment used for these tasks includes graders, scrapers, rollers, dump trucks, concrete mixer trucks, and concrete pump trucks, and pavers.
- 11) Building sites are excavated; subsoil and gravel fill required for building foundations are compacted; concrete footings and base floor are poured; wood framing is constructed; electrical and water utilities are installed; walls, flooring, ceiling, and roofing are constructed; and building interior is completed.
- 12) Park features including basketball hoops, tennis nets, and picnic tables are installed.
- 13) Landscaped areas are covered with topsoil and planted with trees, shrubs, and ground cover as required by city code.

## **Chapter 3 Environmental Setting and Biological Resources**

### **3.1 Environmental Setting**

#### **3.1.1 Climate**

The City of Tumwater is located in Thurston County in western Washington at the southern extent of Puget Sound. The average precipitation in the area averages approximately 50 inches/year. The area experiences cool, wet, winters and mild summers. The warmest and driest months generally occur in July and August, with December and January generally the coldest months and November through February generally receiving the greatest amount of precipitation. Fog is common in the area. The average maximum temperature is 60.3° F and the average minimum temperature is 39.6° F (Western Regional Climate Center database 2017).

#### **3.1.2 Topography/Geology**

Thurston County is located in the geologic area known as the Puget Trough, bordered to the west by the Olympic Mountains and to the east by the Cascade Mountains. Most of the geology and soils in the County can be attributed to the deposition and erosion caused by several past glaciations and the advance and retreat of the Vashon glacier. These actions left behind coarse, well drained, sandy glacial outwash. Glacial drift, till, and outwash are found in the majority of the low elevation areas in Thurston County.

Typically, prairie lands found in Thurston County occur on glacial outwash soils and are sandy, well drained layers of often very deep outwash (Drost et al 1998). The prairies that formed in Thurston County on this plateau of glacial gravels generally have sandy to gravelly, deep, well-drained soils with low water-holding capacity.

The topography of the facility site varies with some areas being relatively flat and other areas with slopes up to 30%. The roundabout site is relatively flat, with the exception of road bank areas. Mapped soil types at the facility site include Nisqually loamy fine sand (0 to 3% slopes) on the west and central portions of the site, and Indianola loamy sand (15 to 30% slopes) and Mukilteo muck (drained) on the northeast portion of the site where the land slopes down to a depressional wetland area (NRCS 2020) (see Figure 4, “NRCS Soils”). The mapped soil type at the roundabout is Nisqually loamy fine sand (0 to 3% slopes).

Soils observed west of Trails End Drive SE include the mapped Nisqually loamy fine sand and disturbed, gravelly sandy loam, with disturbances related to the past horse arena operations. Soils are compacted and crushed gravel is present beneath past access roads, parking areas, and demolished buildings that were used for horse arena operations east of Trails End Drive SE. Some areas are paved. Soils at the roundabout site that are not already overlain by pavement or compacted gravel have been disturbed by past road construction activities and frontage improvements.

#### **3.1.3 Hydrology/Streams, Rivers, and Drainages**

The property is located within the Deschutes River-Capitol Lake watershed (US Geologic Survey Hydrologic Unit Code 171100160202). A palustrine forested wetland is positioned in a depressional area in the northeast corner of the project site.

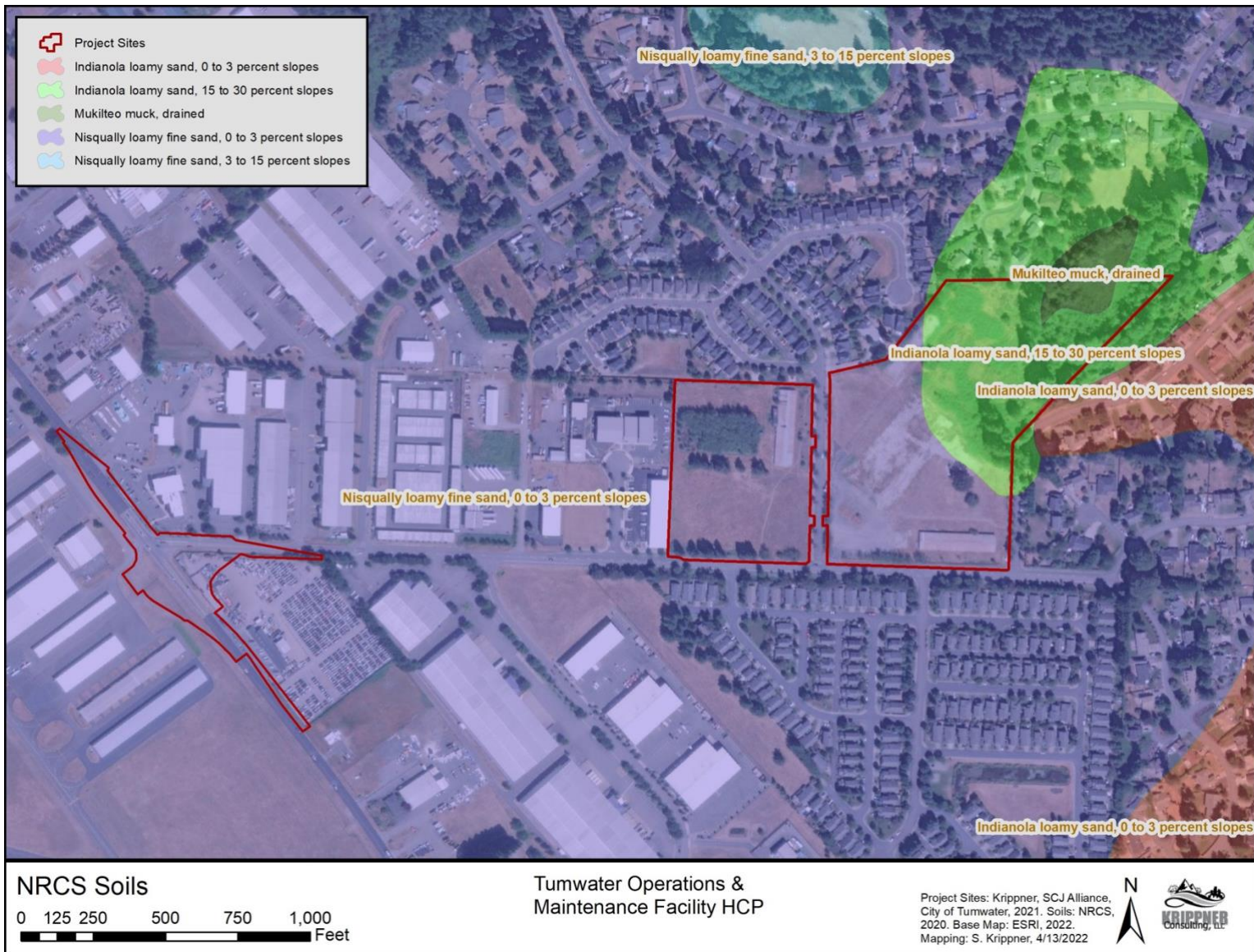


Figure 4. NRCS Soils

### 3.1.4 Existing Land Use

The proposed facility site was previously an equestrian center, referred to as the Trails End Arena, with a main arena building and several detached barns and other support buildings. Open fields were used for grazing. Most of the buildings were demolished in 2018 due to public safety concerns. Building sites were stabilized with gravel following demolition. Trails End Arena has not been in operation for a decade or more. The proposed facility site is currently undeveloped except for two remaining buildings, paved areas, and areas where soils consist of compacted gravel from previous arena operation and recent demolition-related activities.

The proposed roundabout area includes existing paved roadway, a car wrecking yard, grass-dominated road shoulders, gravel road shoulders, and improved road frontage areas with landscaping.

Developed areas on the project site covered by buildings, pavement, compacted gravel, and improved road frontage encompass approximately 11 acres, or 42% of the project site (see Table 1, “Land Use and Habitat Summary Calculations”).

**Table 1. Land Use and Habitat Summary Calculations**

<b>Land Use and Habitat Categories</b>	<b>Facility (acres)</b>	<b>Roundabout (acres)</b>	<b>Project Site Total (acres)</b>
Developed - paved, compacted gravel, improved road frontage	8.6	2.4	11.0
Forest	3.5	0.0	3.5
Shrub	3.1	0.0	3.1
Grassland	7.6	0.0	7.6
Mowed grass	0.0	1.0	1.0
<b>Total</b>	<b>22.8</b>	<b>3.4</b>	<b>26.2</b>

### 3.2 Biological Resources

Vegetation communities present on the proposed facility site include grassland, shrub, and upland and palustrine (wetland) forest (see Table 1; Figure 5 “Land Cover and Survey Results at Facility Site”; and Photos 1 through 10). Grassland habitat provides habitat to gophers and encompasses approximately 7.6 acres, or 29% of the project site. Shrub and forest vegetation communities on the site do not provide habitat to gophers. Shrub and forest habitats encompass approximately 6.6 acres, or 25% of the project site.

Grassland habitat on the site is degraded by the presence of non-native plants and encroaching shrubs and trees. Non-native, rhizomatous grasses dominate grassland habitats west of Trails End Drive SE (see Photos 1 and 2). Forbs include oxeye daisy, Queen Ann’s lace, hairy cat’s ears, sheep sorrel, and plantain. Black cottonwood and pine trees are becoming established in the northwest portion of this area (see Photos 3 and 4).





**Figure 5. Land Cover and Survey Results at Facility Site**



Photo 1. View north from PP1 shows a remaining barn structure and grassland habitat on the west parcel (January 15, 2021). See Figure 5 for location of photo points.



Photo 2. View west from PP1 shows grassland habitat on the west parcel and new construction at the adjacent Trails End Industrial Plaza (January 15, 2021).





Photo 3. View north from PP2, black cottonwood becoming established (June 21, 2016).



Photo 4. View north from PP2, pine trees and black cottonwood trees are becoming established in this area now (January 15, 2021).



Photo 5. View north from PP3 of vacant Trails End Arena building (June 21, 2016).



Photo 6. View north from PP3 of pavement and arena demolition site (January 15, 2021).





Photo 7. View north from PP4 of gravel parking area and buildings (June 21, 2016).



Photo 8. View north from PP4 of gravel parking area and building demolition site (January 21, 2021).



Photo 9. View east from PP5, Oregon white oak on a slight rise next to building demolition site and surrounded by compacted gravel substrates (January 15, 2021).



Photo 10. View east from PP5 of habitats on the northeast portion of the site including upland grassland, shrub, and forest and palustrine forested wetland (June 21, 2016).

The flat area east of Trails End Drive SE where park facilities and future parking are proposed is covered by pavement, a building and compacted, gravelly substrates (Photos 5 and 6) with the exception of some vegetated edge areas as shown on Figure 5. The compacted gravel substrates are covered by sparse grasses, mosses, lichens, and weeds (see Photos 5 through 8). One large Oregon white oak tree is located next to a demolished building site (see Photo 9). The Trails End arena building that spanned across this area and other buildings were demolished in 2018. Only one building remains east of Trails End Drive SE and one building remains west of this road.

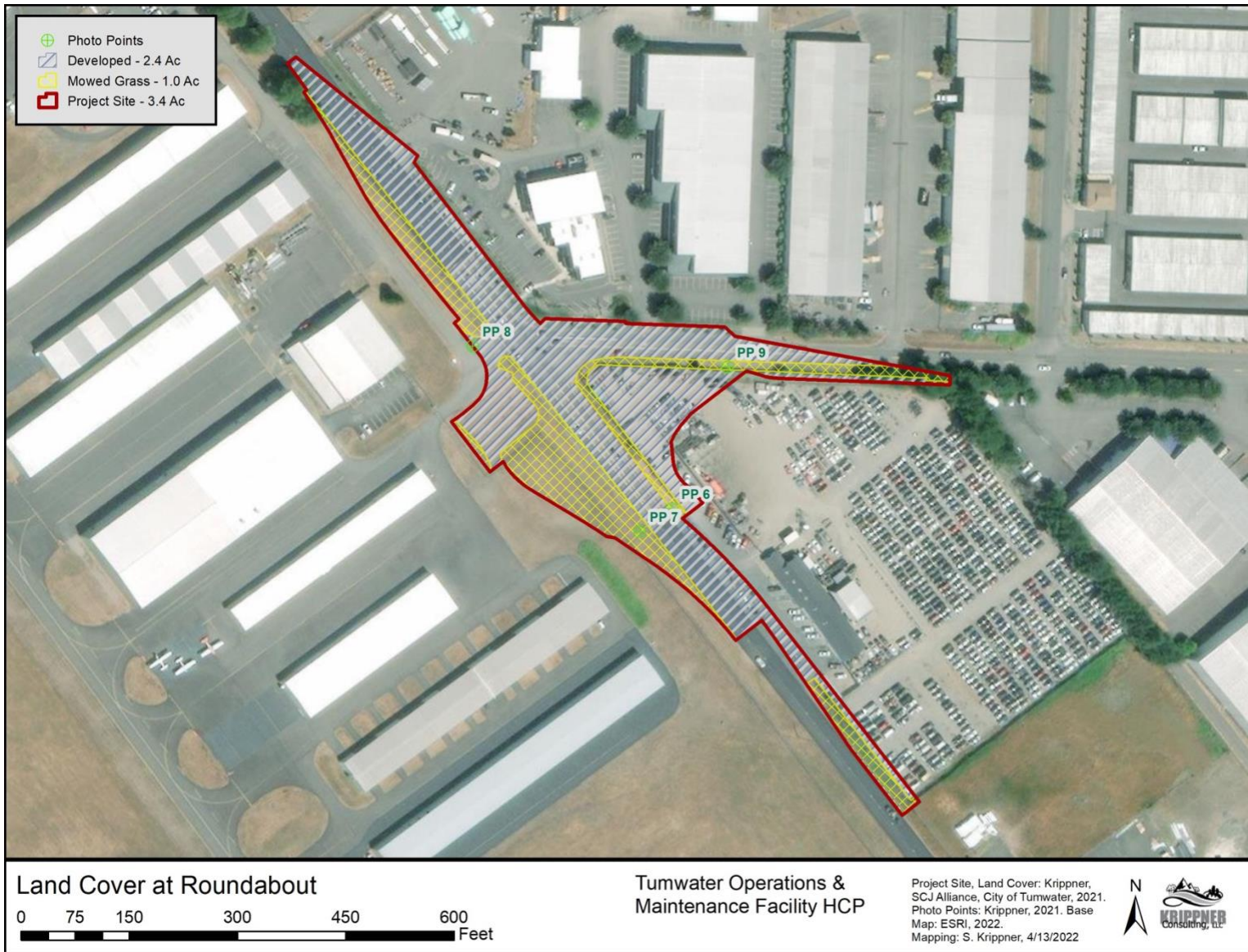
The slope on the northeast portion of the facility site is dominated by Armenian blackberry and dense rhizomatous grasses (see Photo 10). Douglas fir is in the upland forest canopy and the wetland forest canopy includes western red cedar, Oregon ash, red alder, and black cottonwood. Plant species observed on the facility site are listed in Table 2, “Plants Identified at the Facility Site”.

Olympia pocket gopher mounds were surveyed by Linda Krippner and Steve Krippner on grassland habitats at the proposed facility site on June 21, 2016 with some follow-up surveys conducted east of Trails End Drive on May 7, 2018, prior to building demolition (see Figure 5). Gophers have continued to occupy grassland habitats on the facility site since this time as indicated by gopher mound clusters observed west of Trails End Drive on January 15, 2021.

Areas that may provide habitat to gophers at the proposed roundabout site are limited to grassy road shoulder areas (see Figure 6, “Land Cover at Roundabout” and Photos 11 through 14). These areas, encompassing approximately 1.0 acre, or 4% of the project site (see Table 1), are mowed on a regular basis for road safety and are dominated by rhizomatous grasses and mosses. Given this site’s adjacency to the Olympia Regional Airport grounds where Olympia pocket gophers are common, gophers are likely to occur in mowed grass areas adjacent to Old Highway 99, and they may also occur on the slope between 79<sup>th</sup> Avenue SE and the wrecking yard. Other areas are developed or landscaped with trees and highly manicured lawn that are not suitable for gophers.

In summary, grassland habitat on the facility site and mowed grass at the roundabout site are assumed to be occupied by gophers. Combined these habitat areas total to approximately 8.6 acres of gopher occupied habitat on the project site. No other project site areas provide habitat to gophers.





**Figure 6. Land Cover at Roundabout**



Photo 11. View northwest from PP6 of the mowed grass road shoulder on the northeast side of Old Highway 99 SE (January 15, 2021). See Figure 6 for location of photo points.



Photo 12. View northwest from PP7 of the mowed grass road shoulder on the southwest side of Old Highway 99 SE (January 15, 2021).





Photo 13. View northwest from PP8 of the mowed grass road shoulder on the southwest side of Old Highway 99 SE, north of the 79<sup>th</sup> Avenue SE intersection (January 15, 2021).



Photo 14. View west of the mowed road shoulder between 79<sup>th</sup> Avenue SE and the wrecking yard (January 15, 2021).

**Table 2. Plants Identified at the Facility Site**

<b>Scientific Name</b>	<b>Common Name</b>
<i>Achillea millefolium</i>	Yarrow
<i>Agrostis sp.</i>	Bent grass
<i>Alnus rubra</i>	Red alder
<i>Anthoxanthum odoratum</i>	Sweet vernal grass
<i>Athyrium filix-femina</i>	Lady fern
<i>Brassica sp.</i>	Mustard
<i>Bromus sp.</i>	Brome grass
<i>Carex leptopoda</i>	Slender-foot sedge
<i>Carex obnupta</i>	Slough sedge
<i>Circaea alpina</i>	Enchanter's nightshade
<i>Cirsium arvense</i>	Canada thistle
<i>Cirsium vulgare</i>	Bull thistle
<i>Claytonia sibirica</i>	Candyflower
<i>Cytisus scoparius</i>	Scot's broom
<i>Dactylis glomerata</i>	Orchard grass
<i>Daucus carota</i>	Queen Anne's lace
<i>Festuca rubra</i>	Red fescue
<i>Fraxinus latifolia</i>	Oregon ash
<i>Galium aparine</i>	Bedstraw
<i>Holcus lanatus</i>	Velvetgrass
<i>Hypericum perforatum</i>	St. Johnswort
<i>Hypochaeris radicata</i>	Hairy cat's ears
<i>Lactuca serriola</i>	Prickly lettuce
<i>Lepidium campestre</i>	Field pepperweed
<i>Leucanthemum vulgare</i>	Oxeye daisy
<i>Lolium perenne</i>	Perennial ryegrass
<i>Lupinus bicolor</i>	Bicolor lupine
<i>Marah oreganus</i>	Coastal manroot
<i>Oemleria cerasiformis</i>	Osoberry
<i>Phalaris arundinacea</i>	Reed canarygrass
<i>Pinus sp.</i>	Pine tree
<i>Plantago lanceolata</i>	Long-leaf plantain
<i>Populus balsamifera</i>	Black cottonwood
<i>Prunus sp.</i>	Cherry tree
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Quercus garryana</i>	Oregon white oak
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rubus armeniacus</i>	Armenian blackberry
<i>Rubus ursinus</i>	Trailing blackberry
<i>Rumex acetosella</i>	Sheep sorrel
<i>Rumex sp.</i>	Dock
<i>Salix lucida</i>	Pacific willow

<b>Scientific Name</b>	<b>Common Name</b>
<i>Sambucus racemosa</i>	Red elderberry
<i>Solanum sp.</i>	Nightshade
<i>Spiraea douglasii</i>	Douglas spirea
<i>Symphoricarpos albus</i>	Snowberry
<i>Taraxacum officinale</i>	Dandelion
<i>Thuja plicata</i>	Western red cedar
<i>Tolmiea menziesii</i>	Youth-on-age
<i>Urtica dioica</i>	Stinging nettle
<i>Vicia sp</i>	Vetch

### **3.2.1 Covered Species**

The Applicant proposes to cover the Olympia pocket gopher for unavoidable incidental take that may occur as a result of engaging in activities related to the development of the Tumwater Operations & Maintenance Facility, a roundabout to support this facility, and parks facilities on the same project site.

### **3.2.2 Status and Distribution**

On April 9, 2014, the Service published a final rule in the Federal Register listing the Olympia pocket gopher as threatened throughout their range in the State of Washington (79 FR 19760; April 9, 2014) (USFWS 2014a). The Service also published a final rule designating critical habitat for the Olympia pocket gopher on the grounds of the Olympia Regional Airport (79 FR 19712-19757; April 9, 2014) (USFWS 2014b). Neither the project site nor the conservation site is located within designated critical habitat areas (see Figure 7, “Olympia Pocket Gopher Service Area”).

Olympia pocket gophers are found on degraded grassland and native prairie habitats in the City of Tumwater, the City of Tumwater’s Urban Growth Area (UGA), and a portion of unincorporated Thurston County. The approximate range of the Olympia pocket gopher is shown in Figure 7. Reserve Priority Areas (RPA) within this area have been identified as areas with higher habitat value and restoration potential by USFWS to aid in recovery planning (USFWS 2015). Neither the conservation site nor project site is located in an Olympia pocket gopher RPA (see Figure 7).

The largest known population of Olympia pocket gophers is found in fine loamy sand soils at the Olympia Regional Airport and in surrounding areas in Tumwater on Bush Prairie (Stinson 2019). Gopher mounds have been documented in surveys on over several hundred acres of maintained grassland at the airport (McAllister and Schmidt 2005). Olympia pocket gophers are also found in other areas on vacant lots, yards, and pastures on both sides of Interstate 5 within the Olympia Pocket Gopher Service Area (WDFW 2021). They occur most commonly on sites mapped as having Alderwood, Cagey, Everett, Godfrey, Indianola, Kapowsin, McKenna, Nisqually, Norma, Spanaway, Spanaway-Nisqually complex, and Yelm soils (79 FR 19728).





Prairie habitat that provides habitat for Olympia pocket gophers has been lost, degraded, and fragmented in recent times (approximately 1890 to the present time) due to urban development, conversion to other uses, and ingrowth of woody vegetation (USFWS 2014a). Many surviving subpopulations are likely small and appear to be isolated from other subpopulations, although there are few data on dispersal to help delineate genetically connected populations. Small subpopulations are unlikely to persist for long without at least occasional demographic and genetic recharge by dispersing individuals from other nearby subpopulations. Re-colonization becomes less likely as habitat is fragmented and populations become isolated (Stinson 2005).

### **3.2.3 Life History and Ecology**

Olympia pocket gophers spend most of their time within their system of burrows. Gophers are believed to be generally solitary and exclude other gophers from their burrows except when breeding and when females have litters. When pocket gophers have established a territory, they generally remain there, although they will shift their home range in response to seasonally wet soils. Pocket gopher territory sizes (i.e., burrow systems) vary with habitat quality and reproductive status (Stinson 2019).

Olympia pocket gophers attain sexual maturity by the breeding season after their birth, when approximately 9 months old and rear a single litter of about 5 (2-7) pups per year (Witmer et al. 1996, Verts and Carraway 2000). Gopher populations can increase dramatically in the summer after the dispersal of young of the year and may increase to three to four times the spring adult population. In addition to this annual influx of young-of-the-year, gopher populations also fluctuate year-to-year due to environmental conditions.

Pocket gophers have been called ‘keystone species’ and ‘ecosystem engineers’ because they affect the presence and abundance of plants and other animals (Vaughan 1961, 1974; Reichman and Seabloom 2002). Their extensive excavations affect soil structure and chemistry; food caches and latrines enrich the soil, affecting plant community composition and productivity. Mazama pocket gophers are also an important prey species for many predators, including hawks, owls, coyotes, and weasels; and their burrows provide retreats for salamanders, western toads, frogs, lizards, small mammals, and invertebrates (Stinson 2005).

### **3.2.4 Habitat Characteristics and Use**

Olympia pocket gophers live on open meadows, prairies and grassland habitats of the glacial outwash plain where there are porous, well-drained soils (Dalquest 1948). They can live in a wide range of grasslands, including pastures and agricultural lands.

Olympia pocket gophers forage on a wide variety of plant material, including leafy vegetation, roots, shoots, and tubers (USFWS 2014a). When succulent in summer months, perennial forbs are a preferred food over grasses, and fleshy roots and bulbs, such as camas (*Camasia* spp.) are important when green vegetation is not available. The availability of forbs may provide nutrients important for gopher growth and reproduction (Stinson 2019). Gophers also eat fungi and disseminate the spores of species that have an important role in facilitating plant growth (Stinson 2019).

The distribution and abundance of pocket gophers is greatly affected by soils. Soil characteristics that affect gophers include depth and texture, particularly rock and clay content

that affects burrowing ability, permeability that can result in periodic flooding of burrows, and water-holding capacity and fertility that affect growth of plant foods. Pocket gophers generally prefer deep, light-textured, porous, well-drained soils, and do not occur in peat or heavy clay soils (Chase et al. 1982, Baker et al. 2003). They are seldom found in very rocky soil (Steinberg 1996, Olson 2011).

Olympia pocket gopher habitat in the south Puget Sound has been and continues to be lost to development, agriculture, and succession to forest. Most habitat that remains is fragmented and degraded by Scot's broom and other non-native plants. Frequent mowing and herbicide use also degrades habitat. Direct threats include predation by cats and dogs and illegal trapping or poisoning. Habitat loss, fragmentation, degradation, and direct threats are likely to continue affecting gopher populations because Thurston County's population and associated residential and commercial development are projected to grow substantially in the next few decades (Sustainable Thurston 2011: A11).

### **3.2.4 Occurrence in the Project Area**

Olympia pocket gophers can be difficult to detect because they spend most of their lives underground, with the exception of very brief surface forays for feeding or for dispersal of young from their natal burrow systems (USFWS 2014a; Stinson 2019). Olympia pocket gophers are typically detected by searching potential habitat for the presence of gopher mounds indicating below-ground burrowing. Detection of mounds can verify presence of the species on a site but does not provide abundance or distribution data (Olson 2011). Within-site distribution is likely to change in small and large ways across years. Therefore, occupied habitat is considered to be the area of suitable soils with a common management history and a cover type contiguous with the occupied area.

Olympia pocket gopher mounds were observed in grassland habitats on the proposed facility site in June 2016, May 2018, and January 2021. Habitat conditions and gopher occupancy in these areas are described in more detail earlier in Chapter 3. At least some of the mowed grass areas at the roundabout site are also likely to be occupied because they are adjacent to occupied areas at the Olympia Regional Airport. This site was only surveyed in January 2021, outside of the normal survey season for this species. Occupied habitat on the project site is dominated by non-native grasses and forbs. Soil types occupied by gophers on the project site include gravelly sandy loam and fine loamy sand.

## **Chapter 4 Potential Biological Impacts and Take Assessment**

### **4.1 Direct and Indirect Impacts**

Impacts to Olympia pocket gophers incidental to the proposed development may result from direct and indirect impacts. Direct impacts are those caused by or resulting from the proposed project and include, but are not limited, to mortality of individuals due to crushing within burrows as a result of heavy equipment operations, or injury of individuals during digging, soil excavation, or trenching activities. Indirect impacts are those caused by, or resulting from, the proposed project and are later in time, but are still reasonably certain to occur. Indirect impacts include effects such as removal of vegetation that the species eats, or compaction of soils resulting in destroyed burrow systems. Gophers are likely to be impacted on the project site both

directly by excavation and grading activities and indirectly by activities that result in vegetation removal and soil compaction during construction.

#### **4.2 Anticipated Take and Impacts of the Taking**

Section 3 of the ESA defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct” [16 USC § 1532 (19)]. The term “harm” includes any act “which actually kills or injures wildlife.” Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering (50 C.F.R. § 17.3).

An HCP must analyze the impact likely to result from taking covered species [ESA section 10(a)(2)(A)(i), 50 CFR 17.32(b)(1)(iii)(C)(1)]. To identify the sources of take that may result in an impact, it is necessary to consider each component of the covered activities. Once the causes, types, and amounts of take have been identified, the resulting impact can be assessed.

Stressors associated with the covered activities that could result in take through harm of Olympia pocket gophers include loss of needed food materials (forage), soil disturbance, compaction to burrows for breeding and sheltering, and crushing that results in injury or death.

Individual pocket gophers in areas with degraded or limited food resources are expected to require larger home ranges with more extensive burrow systems (Olson 2011). Olympia pocket gophers are known to be antagonistic towards each other, except when breeding, which generally results in avoidance behavior that likely distributes individuals across a landscape (Stinson 2019). This distribution behavior, combined with the larger expected home ranges in areas with degraded or limited food resources, might result in impacts to fewer individuals when compared to habitat impacts in areas with higher relative habitat quality. This effects analysis considers effects on habitat as a surrogate for effects to the species.

When construction is initiated on the project site, habitat will be lost along with any individuals. Incidental take is expected to be highest during initial site clearing, grading, and excavation, as these activities will extend below the ground and into burrow systems, natal nests, and food caches. Burrow systems may be destroyed, and individual animals harmed during these construction activities.

Take in the form of harm may occur during site clearing, excavation, and grading if equipment injures or kills individuals, or if forage plants are removed and soils for burrow systems are removed, compacted, or covered with impermeable surfaces. Take may occur wherever suitable habitat is removed and covered with impervious surfaces. Harm may occur when individuals experience a measurable disruption to their normal behavior when the food items they rely on (forage resources) are removed or disturbed, or there is an increased energetic demand from having to relocate and/or rebuild tunnel systems and food caches.

Observing or documenting instances of take may be difficult or impossible because Olympia pocket gophers remain underground for most of their lives. The loss of suitable habitat on the project site will therefore serve as a surrogate for the amount of take anticipated over the term of the requested permit. Up to 8.6 acres of occupied Olympia pocket gopher habitat is likely to be permanently lost due to development activities once the project site has been developed and



construction is complete. Approximately 7.6 acres of this habitat is at the facility site, and 1.0 acre is at the roundabout site. Because all of this habitat is likely to be affected by the covered activities, the total area of suitable habitat affected is 8.6 acres. Suitable gopher habitat that will be impacted by the project is shown in Figure 8, “Habitat Impact Areas.”

The quality of the habitat to be impacted by the project is low. Most areas are dominated by dense rhizomatous grasses with a low abundance of preferred forage plants including succulent forbs and bulbs. Some areas on the northwest portion of the facility site are being encroached by trees and shrubs, including black cottonwood, pine, and Scot’s broom. Another area on the south portion of the facility site west of Trails End Drive SE has compacted, gravelly soils due to past arena operations, as evident in past aerial imagery. It was not obvious in the field whether or not burrowing by gophers would be possible in this area, so this area was conservatively included here as suitable habitat. The project site is also not likely to sustain gophers over the long term because the facility site is becoming isolated by commercial and residential developments, and the roundabout is an expansion to an existing major arterial road with dense urban development on all sides.

The Applicant proposes to offset impacts to Olympia pocket gopher and their habitat by acquiring 8.6 acres of habitat managed for the Olympia pocket gopher at the USFWS-approved Deschutes Corridor conservation site. The conservation site with its higher productivity and landscape position conducive to sustaining gophers over the long term has more potential to contribute to the conservation of the species than the project site. Therefore, the Applicant believes that this mitigation proposal of permanently protecting 8.6 acres of habitat at the conservation site should fully offset impacts of the taking expected to result from the covered activities at the project site, see Chapter 5: Conservation Program.



**Figure 8. Habitat Impact Areas**

## **Chapter 5 Conservation Program**

The Conservation Program describes the actions the Applicant and the Land Manager for the Kaufman HCP will implement to provide for the conservation of the Covered Species. Center for Natural Lands Management (CNLM) is currently under contract with Kaufman as the Land Manager for the Deschutes Corridor Conservation Site. CNLM is a non-profit conservation organization that specializes in South Sound prairie restoration and species conservation. CNLM is anticipated to be the long-term Land Manager that holds the endowment for funding conservation activities at the site in perpetuity. The terms and conditions include meeting specific performance standards for providing habitat for Olympia pocket gophers in perpetuity. CNLM submits annual reports to document if they are meeting their management goals for the property, and what adaptive management measures are in place or will be enacted if CNLM is not currently meeting the goals (CNLM 2020).

In accordance with USFWS guidance for development of HCPs (USFWS and NMFS 2016), the conservation program consists of six components:

1. Biological Goals
2. Biological Objectives
3. Avoidance and Minimization Measures
4. Mitigation Measures
5. Monitoring Plan
6. Adaptive Management Plan

### **5.1 Biological Goals**

Biological goals are intended to be broad, guiding principles that clarify the purpose and direction of the Applicants' HCP (USFWS and NMFS 2016). The biological goals describe what the conservation program aims to accomplish over the course of the permit term for species covered by the plan. The biological goals are intended to address specific threats to the Olympia pocket gopher cited in the USFWS listing rule for this species (79 FR 19760-19796) and describe how the Conservation Plan will mitigate for unavoidable effects.

The Applicant will contribute to the conservation of the Olympia pocket gopher by securing and providing for the perpetual management of an offsetting amount of suitable habitat to result in overall benefits to the species. Conservation site biological goals are the same as those described in the Kaufman HCP (Krippner 2016). Biological goals for the project and conservation sites are as follows:

1. Minimize and mitigate activities that unavoidably compact, grade, remove, or cover suitable soils with impervious surfaces at the project site. Mitigation will occur at the conservation site.
2. Minimize and mitigate unavoidable removal of forage vegetation. Mitigation for project site impacts will occur at the conservation site.
3. To permanently prevent the loss of forage vegetation necessary for successful Olympia pocket gopher feeding at the conservation site, avoid, or minimize and

mitigate encroachment of native and nonnative plant species that compete with forage vegetation.

4. To permanently prevent the loss of burrowing habitat necessary for successful Olympia pocket gopher breeding and sheltering at the conservation site, avoid, minimize, and mitigate encroachment of native and nonnative trees and shrubs that overtake soils with woody roots.
5. To prevent the loss of a viable population of Olympia pocket gophers at the conservation site, restore and manage sufficient suitable habitat for this species.

## 5.2 Biological Objectives

Biological objectives describe measurable performance targets to evaluate progress towards achieving the program's biological goals. Objectives provide benchmarks for determining the effectiveness of the conservation program and inform effective adaptive management over the duration of the permit. Conservation site biological objectives are the same as those described in the Kaufman HCP (Krippner 2016). Project site and conservation site biological objectives are summarized as follows:

1. Control unauthorized access and activities on the project and conservation sites. This objective is intended to support biological goals 1 and 5.
2. Impacts from soil compaction, grading, and removing or covering suitable soils with impervious surfaces on the project site will be mitigated at the conservation site. This objective is intended to support biological goal 1.
3. Manage plant species at the conservation site, especially Scot's broom, to the following performance standard. Ensure that no more than 10% of the area on the site consists of Scot's broom and woody vegetation greater than 12 inches in height in years 2016 through 2024, and no more than 5% cover of Scot's broom and woody vegetation greater than 12 inches in height thereafter. This objective is intended to support biological goals 3 and 4.
4. Manage the conservation site to restore and maintain a grassland consisting of forb cover of at least 20% for the first three years after permit issuance, increasing to at least 40% from years 2019 through 2024, and at least 80% thereafter. This objective is intended to support biological goals 2, 3, and 4.
5. To further support the Olympia pocket gopher, the conservation site will be managed to restore and maintain areas that meet the definition of high quality grasslands (defined on page 9 in Appendix D of the Kaufman HCP as areas with at least 30% cover of herbaceous vegetation, which include native annual and perennial grasses and forbs, less than 25% shrub cover, and less than 5% tree cover). By year 2019, at least 10% of the conservation site will meet this standard, and by year 2025, at least 20% will achieve this standard. This site will be managed to maintain this standard thereafter. This objective is intended to support biological goals 2, 3, and 4.
6. Manage the conservation site to support Olympia pocket gophers by achieving at least 20% occupancy (based on mound presence), by 2019. Manage the site to



increase this occupancy rate to achieve at least 30% occupancy by 2025 and thereafter. This objective is intended to support biological goal 5.

### **5.3 Avoidance and Minimization Measures**

The Applicant acknowledges that construction of the proposed operations & maintenance facility, roundabout, and park facilities cannot avoid all impacts to pocket gophers and their habitat. Minimization measures at the construction areas include the following:

1. All grading, excavation, materials storage, construction and development activities will be limited to designated construction areas.
2. Construction and/or silt fencing will be installed at the perimeter of each planned construction area to ensure that all activities occur within these designated areas.

### **5.4 Measures to Mitigate Unavoidable Take**

This HCP provides mitigation measures intended to rectify, reduce, and compensate for the impacts of the unavoidable incidental taking associated with the Covered Activities at the project site. The mitigation proposal is the acquisition of 8.6 acres of suitable habitat that is perpetually dedicated to the management and conservation of the Olympia pocket gopher. This transaction has been completed and is documented in the “Deschutes Corridor Mitigation Site Agreement to Purchase Conservation Credits”, attached as Appendix A. Management requirements for the Deschutes Corridor conservation site are described in the Kaufman HCP in Appendix D, the site management plan for this site (Krippner 2016). These management obligations require that the site be restored to native prairie grassland habitat, and that forage plants are present in abundance to support Olympia pocket gophers in perpetuity. Various management techniques are recommended to achieve the management goals and objectives. These include mowing, targeted herbicide treatment, prescribed burning, native prairie plant seeding, and ongoing monitoring.

The Applicant believes that this mitigation proposal is in keeping with the principles outlined in the USFWS Guidance. Specifically, the Conservation Site:

- a. Is covered by soils that are highly preferred by gophers;
- b. Is currently occupied by Olympia pocket gophers;
- c. Is predominantly vegetated by low-statured forbs and grasses, and is not a monoculture; and
- d. Is legally and permanently conserved, managed, and endowed to help ensure its long-term ecological value consistent with conservation of the Covered Species.

## **5.5 Monitoring**

USFWS determined that monitoring is essential to determining and documenting the success of conservation programs (50 CFR 17.32) and informing adaptive management efforts. Monitoring at the conservation site includes annual surveys for evaluating habitat conditions to ensure that performance standards for Covered Species' habitat have been met. In accordance with the Kaufman HCP (Krippner 2016), the Land Manager is responsible for vegetation management and monitoring each year to meet the terms and conditions of the ITP for Kaufman HCP.

Annual monitoring of the conservation site includes quantitative measures of the following to evaluate conservation benefits to the Olympia pocket gopher:

1. Percent Scot's broom / woody cover > 12 inches tall;
2. Percent grassland with forb cover;
3. Percent high quality grassland (as defined previously); and
4. Gopher mounds present.

Monitoring surveys at the conservation site in support of the Kaufman HCP started in 2016 and will continue on an annual basis for 20 years, until 2035 when the Kaufman HCP expires. Surveys for percent cover of vegetation types and pocket gopher mounds will be conducted every year from June 1 through October 31 from 2016 through 2025, then every 2 years from year 2026 through 2035. In alternating years from 2026 through 2035, the sites will still be monitored for any signs of problems in terms of human access, habitat modifications, or noxious weeds. Survey area coverage is approximately 5 percent of the conservation site each year. Survey methods are described further in the Kaufman HCP, Appendix D: Deschutes Corridor Site Management Plan, Appendix 2: Survey Protocol (Krippner 2016).

After the Kaufman HCP permit has expired at the end of 2035, monitoring surveys will continue to be conducted by the Land Manager every three years in perpetuity.

The Applicant will monitor the project site to ensure that no construction activities happen outside of designated construction areas.

## **5.6 Adaptive Management Strategy**

The U.S. Department of the Interior defines adaptive management as a structured approach to decision making in the face of uncertainty that makes use of the experience of management and the results of research in an embedded feedback loop of monitoring, evaluation, and adjustments in management strategies (Williams et al. 2009). Uncertainties may include a lack of biological information for the Covered Species, a lack of knowledge about the effectiveness of mitigation or management techniques, or doubt about the anticipated effects of the Project. Adaptive management is a required component of HCPs that allows for the incorporation of new information into conservation and mitigation measures during HCP implementation. Effective implementation of this approach requires explicit and measurable objectives, and identifies what actions are to be taken and when

they are to occur. Adaptive management measures do not generally trigger the need for an amendment. Adaptive management is standard practice at all federally-approved conservation sites. To ensure success at the Deschutes Corridor conservation site, adaptive management is being used in conjunction with site monitoring to adjust and improve management techniques as site conditions change over time and as new information on the Covered Species and their management becomes available.

Adaptive management is intended to improve the effectiveness of ongoing management to achieve the biological goals for the Covered Species and their habitat. To ensure that management actions remain focused on the biological goals and objectives specified in the conservation program, the following remedial actions will be employed if the conservation program's specified goals and objectives are not met:

If any unauthorized human access or activities occur on the conservation site, the Land Manager will increase monitoring and patrol of the site and install additional signage delineating property boundaries with trespass warnings. If these activities continue, improved fencing intended to restrict human access may be installed or other means may be used to prevent human entry. Fencing may include locked gates to control access points to the properties. Any fences and gates will be patrolled and maintained as necessary to continue to control unauthorized access (Krippner 2016).

If performance targets are not met in a given monitoring year, management actions will be adjusted, or new techniques will be tested with the purpose of meeting performance targets in future years. Performance standards for measuring the success of Deschutes Corridor prairie restoration efforts aimed at conserving the Olympia pocket gopher were met for woody vegetation and percent forb cover in 2020 (Year 5), but they were not met yet for high-quality native grassland and gopher occupancy. To ensure that all performance standards are met in future years, herbicide application will continue to be applied and prescribed burning will be used to limit non-native vegetation. Native prairie plant species will be seeded in tandem with these treatments to enrich the plant community (CNLM 2020).

Uncertainty regarding biological or ecological factors that can be affected with recurring management actions (such as new management techniques to control invasive and woody plant species) are being addressed by testing and comparing alternative approaches with control treatments. At the conservation site in 2020 Dithiopyr 0.25% (Dimension©) was applied to 7 acres, and ammonium salt of imazapic at a rate of 8 oz/acre (Plateau©) was applied to 12 acres to combat a rat-tailed fescue invasion. Both chemicals are part of trials at other prairie restoration sites where this species has recently become a problem (CNLM 2020). When field testing like this is conducted, results will be evaluated, and subsequent management will be modified to reflect the improved understanding resulting from such testing. The study design, methods, results, and modifications to ongoing management activities will be described in the annual report. Any change/adaption to the management regime will be based on best available science and focused on ensuring that the biological goals described in the HCP are achieved.

## 5.7 Reporting

The Applicant is responsible for reporting project activities during the permit term for this HCP. The Land Manager for the Kaufman HCP is responsible for reporting on monitoring and management results for the conservation site as described in the Kaufman HCP.

### Project Site

The Applicant will provide a report each year of the permit term when construction occurs documenting the following:

1. Brief summary or list of project activities accomplished during the reporting year (e.g. this includes development/construction activities until such time as these activities are complete).
2. Description of any take of the covered species observed (includes cause of take, form of take, take amount, location of take and time of day, and deposition of dead or injured individuals).
3. Description of any minor or major amendments that the Applicant intends to seek or has discussed with the Service.

Annual reports will be provided each year that construction occurs on the project site. Once the project is completed, the completion date will be recorded with USFWS and no further annual reports will be required to comply with this permit.

### Conservation Site

For the conservation site, the Land Manager for the Kaufman HCP provides an annual report until the Kaufman HCP expires in 2035 and a report every three years in perpetuity to USFWS describing monitoring and management activities for the prior and upcoming years and the status of the conservation site. To date, Years 1 through 5 (2016 through 2020) annual reports have been submitted to USFWS.

The Annual Report required until 2035 for the conservation site includes:

1. Activity and date of conservation actions since last monitoring report.
2. Current on-site conditions that are or may be adversely affecting Covered Species and their habitat, as well as any actions being undertaken or contemplated to address such conditions.
3. An evaluation of how conservation goals and performance standards are being met; what activities need to be taken to meet them in future years (per the Adaptive Management Strategy); or recommendations for revisions to goals and performance standards if changed circumstances have occurred.
4. Adaptive management actions that have been implemented or tested and the results of these actions. Adaptive management is likely to include changes to the type of or timing of mowing, seeding, or invasive species management in order to increase cover of native prairie vegetation and forage for gophers.
5. Conservation actions anticipated prior to the next monitoring report submission.

After the Kaufman HCP expires in 2035, the Land Manager will provide a monitoring report to USFWS every three years to document site conditions, species observations, and conservation actions taken to improve habitat for Covered Species.

Compliance monitoring for the Kaufman HCP includes providing documentation to USFWS that describes when mitigation credits are formally dedicated to this project.

## **Chapter 6 Plan Implementation**

### **6.1 Plan Implementation**

The Applicant is responsible for project site monitoring and annual reporting each year of the permit term.

The Conservation Plan for Deschutes Corridor conservation site is currently being implemented by the Land Manager in accordance with the Kaufman HCP.

### **6.2 Changed Circumstances**

Changed circumstances include natural events such as fire, flood, climate change, earthquake; new species invasions, or disease; the listing of other species within the plan area that may be affected by covered activities; or other events that could affect the Deschutes Corridor Land Manager's ability to meet the biological goals and objectives of the HCP. Changed circumstances for the conservation site must be addressed in perpetuity by the Land Manager in accordance with the Kaufman HCP (Krippner 2016) and the terms and conditions of the ITP for the Kaufman HCP. To address any changed circumstances, the Land Manager will alter or adapt site management actions using best available science to promote the continued goals and objectives of habitat conservation for the Covered Species. If any do occur, USFWS will be consulted to adjust minimization or mitigation measures to address these circumstances. Site management actions will be altered/adapted using best available science to promote the continued goals and objectives of habitat conservation for the Covered Species. Any costs of these activities will be covered by Kaufman Construction & Development, Inc. as part of ongoing management of the Deschutes Corridor conservation site as described in the Kaufman HCP.

### **6.3 Unforeseen Circumstances**

Unforeseen circumstances include circumstances that were not anticipated by the Applicant or USFWS during the preparation of the HCP that result in a substantial and adverse change in the status of the Covered Species. Unforeseen Circumstances are defined by Federal regulation (50 CFR §17.3) as "changes in circumstances affecting a species or geographic area covered by a conservation plan or agreement that could not reasonably have been anticipated by plan or agreement developers and the USFWS at the time of the conservation plan's or agreement's negotiation and development, and that result in a substantial and adverse change in the status of the covered species."

USFWS bears the burden of demonstrating that Unforeseen Circumstances exist, using the best scientific and commercial data available. If an Unforeseen Circumstance occurs during the term of the HCP, and if USFWS determines that additional conservation and mitigation measures are

necessary to respond to such Unforeseen Circumstances, then USFWS may require more conservation measures of the Permittee, but only if such measures are limited to modifications within conserved habitat areas, if any, or the HCP's operating conservation program for the affected species, and if such measures maintain the original terms of the HCP to the maximum extent possible.

Notwithstanding the foregoing paragraph:

1. USFWS will clearly document any findings of Unforeseen Circumstances. In determining whether any event constitutes an unforeseen circumstance, USFWS will consider, but not be limited to, the following factors: 1) the extent of the current range of affected species, 2) percentage of range adversely affected by the HCP, 3) the percentage of range of the affected species conserved by the HCP, 4) the ecological significance of that portion of the range affected by the HCP, 5) the level of knowledge about the affected species and habitat and the degree of specificity of the species' conservation program under the HCP, and 6) whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.
2. USFWS will not require the commitment of additional land, water, or financial compensation without the consent of the Applicant or impose additional restrictions on the use of land, water, or natural resources otherwise available for use by the Applicant under the original terms of the HCP, including additional restrictions on covered actions that are permitted under the HCP.
3. Nothing in this HCP will be construed to limit or constrain USFWS or any other governmental agency from taking additional actions at its own expense to protect or conserve a species included in the HCP. Nothing in this agreement allows the Federal government or any other party to take any portion of this property without property owner agreement.

In the event of Unforeseen Circumstances USFWS will provide written notice (except where there is substantial threat of imminent, significant adverse impacts to a Covered Species) to the Applicant with a detailed statement of the facts regarding the unforeseen circumstance involved, the anticipated impact(s) to the Covered Species and their habitat(s), and all information and data that supports the assertion. In addition, the notice will include any proposed conservation measure(s) that is believed would address the Unforeseen Circumstance, an estimate of the cost of implementing such conservation measure(s), and the likely effects upon the Applicant. No additional cost may be required of the Applicant should additional measures need to be implemented.

### **6.3.1 Evaluation of Unforeseen Circumstances**

During the period necessary to determine the nature and location of additional or modified mitigation, the USFWS may perform an analysis of the Covered Species or its habitat. The Applicant may submit additional information to the USFWS. The USFWS may use requested or provided information to propose modifications or redirection of existing conservation measures.

### **6.3.2 The “No Surprises” Regulations**

The USFWS “No Surprises” regulations (69 FR 71723) states that if the Applicant is properly implementing an HCP that has been approved by USFWS, no additional commitment of resources beyond that already specified in the plan will be required. “Properly implemented conservation plan” means any HCP and permit whose commitments and provisions have been and are being fully implemented by the Applicant and in which the Applicant is in full compliance with the terms and conditions of the permit, so the HCP is consistent with the agreed-upon operating conservation program for the project. A properly-implemented conservation plan for the HCP includes implementation of all elements of the conservation plan, including the Adaptive Management, Monitoring Program, and responses to Changed Circumstances.

The Applicant seeks the regulatory (No Surprises) assurances for the Covered Species in the plan. In accordance with No Surprises, the Land Manager for the conservation site will be responsible for implementing and funding adaptive management and remedial measures in response to any Changed Circumstances as described in the HCP. The Land Manager would only be obligated to address Unforeseen Circumstances within the specified limits described above.

The Applicant understands that No Surprises assurances are contingent on the proper implementation of the ITP and the HCP. The Applicant also understands that USFWS may suspend or revoke the Federal permit, in whole or in part, in accordance with Federal regulations (50 CFR Section 13.27 and 13.28 and other applicable laws and regulations) in force at the time of such suspension if the Applicant fails to comply with the agreement.

### **6.4 Amendments**

It may be necessary at some time over the duration of the proposed permit for the USFWS and the Applicant to clarify provisions of the HCP or the requested ITP with respect to program implementation or the meaning and intent of language contained in these documents. Such clarifications will not change the substantive provisions of any of the documents in any way, and will not increase the amount, extent, or duration of permitted take of Covered Species, but merely clarify and make more precise the existing provisions.

In addition, it may be necessary to make administrative changes or minor modifications to the documents at some time over the duration of the proposed permit. Such changes will not result in substantive changes to any provisions of the documents. Examples of such administrative changes or minor modifications include correction of typographic errors in the documents, changes in the legal business name or mailing address of a permittee, or clarification of reporting procedures. Requests for administrative changes and minor modifications must be received in writing and may be reviewed and approved by the USFWS Washington Fish and Wildlife Office or the USFWS Regional Office in accordance with applicable regulations and policies (50 CFR 13).

Except as provided for above, the HCP and the ITP may not be amended or modified in any way without the written approval of the Applicant and the USFWS. Major amendments to the HCP or the ITP would be required for changes in location, covered activity, type or amount of take, or covered species. Examples of changes requiring major amendments to the documents include



the listing of a species not currently addressed in the HCP that may be affected by the Covered Activities; the modification of any Covered Activity, minimization, or mitigation measure under the HCP, including funding, that may affect the type or amount of take, the effects of the Covered Activities, or the nature or scope of the minimization or mitigation measures in a manner or to an extent not previously considered in issuing the ITP; or any other modification of the Covered Activities that causes an effect to the Covered Species or their designated critical habitat not considered in the original ITP.

Such major amendments will be processed by the USFWS in accordance with the provisions of the ESA and the applicable regulations (50 CFR 13 and 17) and will be subject to the appropriate level of environmental review under the provisions of NEPA.

### **6.5 Permit Suspension/Revocation**

The USFWS may suspend or revoke their permit if the Applicant fails to implement the HCP in accordance with the terms and conditions of the permit or if suspension or revocation is otherwise required by law. The USFWS may suspend or revoke the Section 10(a)(1)(B) permit, in whole or in part, in accordance with the ESA, associated implementing regulations, or other applicable laws and regulations in force at the time of such suspension or revocation.

### **6.6 Permit Renewal**

If unanticipated construction delays or other delays preclude completion of the project during the requested duration of the ITP, the Applicant may need to submit a formal request to USFWS to renew the permit.

Upon expiration, a Section 10(a)(1)(B) permit may be renewed, provided that the issued permit is renewable, and that biological circumstances and other pertinent factors affecting covered species are not significantly different than those described in the original HCP. To renew the permit, the Applicant shall submit to the Service, in writing:

- a request to renew the permit referencing the original permit number;
- certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct, any changes to the original information must be listed and described clearly;
- a description of any take that has occurred under the existing permit; and
- a description of any portions of the project still to be completed, if applicable, or what activities under the original permit the renewal is intended to cover.

If upon review of current environmental baseline and status of the species information and consideration of the future proposal the Service concurs with the information provided in the request, it shall renew the permit consistent with permit renewal procedures required by Federal regulation (50 CFR 13.22). If the Applicant fails to file a renewal request within 30 days prior to permit expiration, the permit shall become invalid upon expiration.

## **Chapter 7 Funding Assurances**

An HCP submitted in support of a Section 10 permit application must specify the funding that will be available to implement the minimization and mitigation measures identified in the plan [16 U.S.C. § 1539(a)(2)(A)(i)-(iv); 50 C.F.R. § 17.22(b)(1)(iii)].

The Applicant secured offsetting mitigation and provided for the continued perpetual operation and maintenance of the Deschutes Corridor conservation site to conserve the Olympia pocket gopher. The purchase agreement documenting this transaction from Kaufman Construction & Development, Inc. from their Deschutes Corridor conservation site is provided in Appendix A.

Because perpetual operation and maintenance remains the obligation of the Land Manager of that site, and because financial arrangements providing for these ongoing activities have been completed, the Applicant believes that they have fulfilled the financial assurances required to meet permit issuance criteria.

## **Chapter 8 Alternatives to the Taking**

### **8.1 Summary**

An HCP is required to describe “what alternative actions to such taking the Applicant considered and the reasons why such alternatives are not being utilized” [ESA §10(a)(2)(A)(iii)].

### **8.2 Alternative #1**

Because the project site is known to be occupied and Olympia pocket gophers and individuals may occur anywhere on the site, it is not possible to develop areas on the project site while completely avoiding all impacts to the species and its habitat.

Because construction on the project site is an otherwise lawful activity for which incidental take could be authorized under Section 10 of the ESA, the Applicant has decided to move forward with the proposed activities by pursuing an ITP.

## Literature Cited

- Baker, R. J., R. D. Bradley, and L. R. McAliley, Jr. 2003. Pocket Gophers. Pp. 276-287 in G. A. Feldhamer, B. C. Thompson, and J. A. Chapman. Wild Mammals of North America: Biology, Management, and Conservation (2nd ed.). John Hopkins University Press, Baltimore, MD. 1,232 pp.
- Center for Natural Lands Management. 2020. Year 5 – Annual Report for 2020: Leitner Prairie and Deschutes Corridor (MBW090). Prepared for Kaufman Holdings, Inc., Kaufman Real Estate, LLC, and Liberty Leasing & Construction, Inc. December 17, 2020.
- Chase, J. D., W. E. Howard, and J. T. Roseberry. 1982. Pocket gophers. Pp 239-255 in J. A. Chapman and G. A. Feldhamer (eds.). Wild Mammals of North America. John Hopkins University Press, Baltimore, MD. 1,147 pp.
- Dalquest, W. W. 1948. Mammals of Washington. University of Kansas Publications, Museum of Natural History 2:1- 444.
- Drost, B. W., G. L. Turney, N. P. Dion, and M. A. Jones. 1998. Hydrology and Quality of Ground Water in Northern Thurston County, Washington. U.S. Geological Survey. Water-Resources Investigations Report 92-4109 [Revised].
- Krippner Consulting, LLC. 2016. The Kaufman Habitat Conservation Plan for Taylor's Checkerspot Butterfly (*Euphydryas editha taylori*); Streaked horned lark (*Eremophila alpestris strigata*); and two subspecies of the Mazama Pocket Gopher (*Thomomys mazama pugetensis* and *Thomomys mazama yelmensis*); in Thurston County, Washington. Prepared for Kaufman Holdings, Inc.; Kaufman Real Estate, LLC; and Liberty Leasing & Construction, Inc. January 2016. This document can be accessed at: [https://esadocs.cci-dev.org/ESAdocs/conserv\\_agmt/thcp\\_1464.pdf](https://esadocs.cci-dev.org/ESAdocs/conserv_agmt/thcp_1464.pdf).
- McAllister, K., and A. Schmidt. 2005. An inventory of Mazama pocket gophers (*Thomomys mazama*) on the Olympia Airport, Thurston County, Washington. Washington Department of Fish and Wildlife, Olympia, WA.
- Natural Resources Conservation Service (NRCS), United States Department of Agriculture. 2020. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>.
- Olson, G.S. 2011. Mazama pocket gopher occupancy modeling. Washington Department of Fish and Wildlife, Olympia, Washington. 45pp.
- Reichman, O. J., and E. W. Seabloom. 2002. The role of pocket gophers as subterranean ecosystem engineers. Trends in Ecology and Evolution 17: 44-49.
- Stinson, D. W. 2005. Washington State Status Report for the Mazama Pocket Gopher, Streaked Horned Lark, and Taylor's Checkerspot. Washington Department of Fish and Wildlife, Olympia. 129+ xii pp.
- Stinson, D. W. 2019. DRAFT Mazama Pocket Gopher Recovery Plan and Periodic Status Review. Washington Department of Fish and Wildlife, Olympia. 100 pp.

- Steinberg, E. K. 1996. Population studies and management of the threatened Mazama pocket gopher: a regional perspective. Final Report, Contract #WAFO-092795, The Nature Conservancy. 50 pp.
- Sustainable Thurston. 2011. Draft Housing Panel White Paper, September 2011. Thurston Regional Planning Council, Olympia, WA.
- USFWS (U.S. Fish and Wildlife Service) and NMFS (National Marine Fisheries Service). 2016. Habitat Conservation Planning and Incidental Take Permit Processing Handbook. U. S. Department of the Interior, U. S. Fish and Wildlife Service, Arlington, Virginia, and U. S. Department of Commerce, National Oceanic and Atmospheric Administration, Silver Spring, Maryland.
- USFWS (U.S. Fish and Wildlife Service). 2014a. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Olympia Pocket Gopher, Roy Prairie Pocket Gopher, Tenino Pocket Gopher, and Yelm Pocket Gopher, With Special Rule; Final Rule. Federal Register 77, (April 9, 2014), No. 68:19760-19796.
- USFWS (U.S. Fish and Wildlife Service). 2014b. Endangered and Threatened Wildlife and Plants; of Critical Habitat for Mazama Pocket Gophers; Final Rule. Federal Register 79, (April 9, 2014), No. 68:19712-19757.
- USFWS (U.S. Fish and Wildlife Service). 2015. Mazama Pocket Gopher Conservation Strategy and Mitigation Guidance. Washington Fish and Wildlife Office, Lacey, Washington. Memorandum (July 1, 2015).
- Vaughan, T. A. 1961. Vertebrates inhabiting pocket gopher burrows in Colorado. Journal of Mammalogy 42:171-174.
- Vaughan, T. A. 1974. Resource allocation in some sympatric subalpine rodents. Journal of Mammalogy 55:764-795.
- Verts, B. J., and L. N. Carraway. 2000. *Thomomys mazama*. Mammalian Species 641:1-7.
- Washington Department of Fish and Wildlife (WDFW). 2021. Priority Habitats and Species Database. Online records.
- Williams, B.K, R.C. Szaro, and C.D. Shapiro. 2009. Adaptive Management: The U.S. Department of the Interior Technical Guide. Adaptive Management Working Group, U.S. Department of the Interior, Washington DC.
- Witmer, G. W., R. D. Sayler, and M. J. Pipas. 1996. Biology and habitat use of the Mazama pocket gopher (*Thomomys mazama*) in the Puget Sound area, Washington. Northwest Science 70:93-98.



**Appendix A – Deschutes Corridor Mitigation Site Agreement to Purchase Conservation Credits**

**DESCHUTES CORRIDOR MITIGATION SITE  
AGREEMENT TO PURCHASE CONSERVATION CREDITS**

THIS AGREEMENT TO PURCHASE DESCHUTES CORRIDOR MITIGATION SITE CONSERVATION CREDITS (“Agreement”) is made by and between KAUFMAN HOLDINGS, INC., a Washington corporation, and KAUFMAN REAL ESTATE, LLC, a Washington limited liability company, (jointly, the “Sellers”) and the CITY OF TUMWATER, WASHINGTON, a political subdivision of the State of Washington (the “City”) (collectively, the “Parties”).

**RECITALS**

WHEREAS, on October 3, 2013, the U.S. Fish and Wildlife Service issued a final rule listing the Taylor’s Checkerspot Butterfly as an endangered species and the Streaked Horned Lark as a threatened species under the Endangered Species Act (“ESA”) of 1973, 16 U.S.C. §1531 *et seq.* (78 Fed. Reg. 61452 (Oct. 3, 2013)); and

WHEREAS, on April 9, 2014, the U.S. Fish and Wildlife Service issued a final rule listing four subspecies of the Mazama pocket gopher as threatened under the ESA (79 Fed. Reg. 19760 (Apr. 9, 2014)); and

WHEREAS, the Sellers own an approximately 51.32 acre conservation site for Taylor’s Checkerspot Butterfly, Streaked Horned Lark, and one subspecies of Mazama Pocket Gopher (*Thomomys mazama pugetensis*) located at 8410 Old Highway 99 SE, Olympia, Washington 98501, Thurston County, Washington, Thurston County Tax Parcel # 12713220102 referred to as the “Deschutes Corridor Conservation Site” (hereinafter “Deschutes Corridor”); and

WHEREAS, the Sellers have applied to the U.S. Fish and Wildlife Service (“USFWS”) and received an incidental take permit pursuant to Section 10(a) of the ESA pursuant to Federal Fish and Wildlife Permit No. TE91853B-0, dated March 21, 2016 (“Kaufman ITP”), attached hereto as **Exhibit A**; and

WHEREAS, the USFWS issued the Kaufman ITP pursuant to the terms and conditions of the approved Kaufman Habitat Conservation Plan (“Kaufman HCP”), excerpts of which are attached hereto as **Exhibit B**, which included a requirement for Sellers to establish and manage Deschutes Corridor as a permanent conservation site for covered species; and

WHEREAS, in approving the Kaufman HCP, the USFWS acknowledged that Deschutes Corridor provided ten (10) acres of mitigation credits in excess of what was required to mitigate the impacts of Sellers’ proposed development projects identified in the Kaufman HCP and Kaufman ITP, and that such credits could be sold with proceeds to fund the costs of the Kaufman HCP, including, but not limited to, initial restoration activities and the conservation endowment; and

WHEREAS, the ten (10) acres of available mitigation credits (“Credits”) are units of trade representing the ecological value of the Deschutes Corridor, as measured by acreage, function, and

value to the Taylor's Checkerspot Butterfly, Streaked Horned Lark, and one subspecies of Mazama pocket gopher (*Thomomys mazama pugetensis*); and

WHEREAS, the City has identified, and anticipates, future City street, utility, facility and other projects that are likely to require mitigation measures for the same listed species as are covered by the Kaufman HCP and Kaufman ITP, and it is in the best interests of the citizens of the City of Tumwater to acquire the remaining ten (10) Credits in Deschutes Corridor for future mitigation; and

WHEREAS, the City intends to prepare one or more Habitat Conservation Plans ("City of Tumwater HCPs") identifying proposed development projects and mitigation measures for the same listed species covered by the Kaufman HCP and Kaufman ITP, and wishes to obtain the remaining ten (10) Credits in Deschutes Corridor for use as mitigation pursuant to the City of Tumwater HCPs for potential impacts that may arise from proposed development.

NOW, THEREFORE, in consideration of the mutual covenants herein contained and other good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, it is agreed as follows:

### **AGREEMENT**

1. **Recitals.** The Parties acknowledge that the above recitals are true and correct and are incorporated into this Agreement.

2. **Effective Date.** The Effective Date of this Agreement is the date on which the last of the Parties signs this Agreement. If more than thirty (30) days have transpired between the first and last signature, this Agreement shall be null and void.

3. **Terms of Purchase.** Subject to the terms of this Agreement, and for the consideration herein stated, the Sellers agree to sell and the City agrees to purchase ten (10) Credits in Deschutes Corridor upon all the terms, covenants, and conditions set forth in this Agreement.

a. The Purchase Price of the Credits is Seven Hundred Thousand Dollars (\$700,000.00), which shall be paid by the City to the Sellers jointly via check, or cashier's check delivered to 7711 Martin Way East, Olympia, Washington 98516 within thirty (30) days of the Effective Date of this Agreement.

b. Each individual Credit is valued at Seventy Thousand Dollars (\$70,000.00).

**4. Transfer of Credits.**

a. Within ten (10) days of the Effective Date, the Sellers shall set aside and reserve the Credits for purchase by the City and shall send written notice of such reservation to USFWS.

b. Upon receipt of payment of the Purchase Price by the City, the Sellers shall transfer the Credits for purchase, along with an executed Bill of Sale in substantially the form attached hereto as **Exhibit C**, to the City (“Closing”) and submit to USFWS a written request to transfer the Credits to the City, along with such other documentation as may be necessary to affect the transfer of the Credits. The Sellers shall provide the City with evidence that the Credits have been transferred. The Credits shall be free of liens, encumbrances, restrictions, rights, and conditions, except those expressly provided for under this Agreement.

c. The Sellers shall bear the risk of loss of the Credits prior to Closing.

d. The sale is not intended as a sale or transfer to the City of a security, license, lease, easement, or possessory or non-possessory interest in real property, nor the granting of any interest in the foregoing.

**5. Default.**

a. If the purchase of the Credits is not consummated because of a default by the Sellers, then the Sellers shall promptly return the Deposit, or Purchase Price, if any, to the City. At its option, the City may pursue an action for specific performance.

b. If the purchase of the Credits is not consummated because of a default by the City, then the Sellers, as their sole remedy, shall have the right to retain the Deposit as full liquidated damages and not as a penalty.

**6. Compliance with Permit.** After Closing, the City does not assume any obligation to support, pay for, monitor, report on, sustain, continue in perpetuity, manage, or otherwise be obligated or liable for the continued expense or maintenance of the Deschutes Corridor. After Closing, the Sellers retain sole responsibility for and warrant compliance with the Kaufman ITP and HCP as to mitigation, permanent conservation, and ongoing maintenance and monitoring of the Deschutes Corridor, including necessary funding therefor, as set forth in the Deschutes Corridor Conservation Site Management Plan (Appendix D to the Kaufman HCP, a copy of which is included within **Exhibit B** hereto), subject to the disclaimer under Paragraph 7 of this Agreement.

**7. Disclaimer of Continuing Liability.** The Sellers’ duties, rights, responsibilities, and obligations with respect to the Deschutes Corridor are limited to those specified in the Kaufman HCP and the Kaufman ITP as described in Paragraph 6 of this Agreement. After Closing, the Sellers are not responsible for and shall not be liable for any act of the USFWS, its employees



or agents, in conjunction with valuation of the Credits purchased under this Agreement for purposes of mitigation within the City of Tumwater HCP.

**8. Indemnification.** The Sellers agree to indemnify the City, its elected officials, officers, employees, members, managers, affiliates, and agents from any and all liabilities, damages, losses, and costs, including, but not limited to reasonable attorneys' fees, to the extent caused by the negligence, recklessness, or intentional wrongful conduct of the Sellers or anyone employed or used by the Sellers in the performance of this Agreement.

**9. Notices.** All notices required under this Agreement shall be in writing and shall be sent by certified or registered mail or hand delivered to the addresses set out below. Notices shall be deemed delivered and given when mailed, if mailed, or when delivered by hand, upon receipt.

Notices to the Sellers:           John Kaufman and Theresa Wall  
7711 Martin Way E.  
Olympia, WA 98516-5622  
[john@kaufmancd.com](mailto:john@kaufmancd.com)  
[theresa@kaufmancd.com](mailto:theresa@kaufmancd.com)

With a copy to:                 Heather L. Burgess  
Phillips Burgess PLLC  
724 Columbia Street NW, Suite 320  
Olympia, WA 98501  
[hburgess@phillipsburgesslaw.com](mailto:hburgess@phillipsburgesslaw.com)

Notices to the City:             Mike Matlock  
City of Tumwater – Community Development  
555 Israel Road SW  
Tumwater, WA 98501-6515  
[mmatlock@ci.tumwater.wa.us](mailto:mmatlock@ci.tumwater.wa.us)

With a copy to:                 Karen Kirkpatrick  
City of Tumwater  
555 Israel Road SW  
Tumwater, WA 98501-6515  
[kkirkpatrick@ci.tumwater.wa.us](mailto:kkirkpatrick@ci.tumwater.wa.us)

Any notice or demand given, delivered, or made by the United States mail shall be deemed so given, delivered, or made on the third business day after the same is deposited in the United States mail, registered or certified letter, addressed as above provided, with postage prepaid. All Parties agree that any notice may be sent via electronic mail to the above Parties; provided, however, that a copy of notice given via electronic mail is simultaneously sent to the noticed party via overnight delivery. The City and the Sellers may from time to time notify the other of changes with respect to whom and where notice should be sent by sending notification of such changes pursuant to this paragraph.

10. **Applicable Law.** This Agreement shall be construed and enforced in accordance with the laws of the State of Washington.

11. **Entire Agreement; Severability.** This Agreement contains the entire agreement between the Parties and the Parties agree that no representation was made by or on behalf of the other which is not contained in this Agreement, and that in entering into this Agreement neither relied upon any representation not especially herein contained. This Agreement supersedes and replaces any prior agreements and understandings, whether oral or written, between the Parties. This Agreement shall not be binding upon the Sellers and the City until executed by an officer of the Sellers and the City, if applicable its corporate seal affixed, and an executed copy of the Agreement has been delivered to the City and the Sellers. In case any term of this Agreement shall be held to be invalid, illegal or unenforceable, in whole or in part, neither the validity of the remaining part of such term nor the validity of any other term of this Agreement shall in any way be affected thereby.

12. **Amendments.** This Agreement may not be amended, modified, altered, or changed in any respect whatsoever, except by a further agreement in writing duly executed by each of the Parties. No failure by the City or the Sellers to insist upon the strict performance of any covenant, duty, agreement, or condition to this Agreement or to exercise any right or remedy upon a breach thereof shall constitute a waiver of any such breach or of any other covenant, agreement, term, or condition. The City or the Sellers by notice may, but shall be under no obligation to, waive any of its rights, or any conditions to its obligations hereunder, or any duty, obligation, or covenants. No waiver shall affect or alter this Agreement, but each covenant, term, and condition of this Agreement shall continue in full force and effect with respect to any other then existing or subsequent breach thereof.

13. **Calculation of Time.** Business days shall be computed without including Saturdays, Sundays, or national legal holidays, and any time period ending on a Saturday, Sunday, or national legal holiday shall be extended until 5:00 pm Pacific Standard Time on the next business day.

14. **Counterparts.** This Agreement may be executed in any number of counterparts, any one and all of which shall constitute the Agreement of the Parties and shall be deemed one original instrument. This Agreement may be executed by each party upon a separate copy as attached to another copy in order to form one or more counterparts.

15. **Captions.** The captions of this Agreement have no effect upon its interpretation and are for convenience and ease of reference only.

16. **Representation and Warranty of the Seller.** The Sellers represent and warrant that, as of the Effective Date, the Sellers own the Credits and that the same are transferable to the City. Except as otherwise stated under this Agreement, the Sellers further represent and warrant that they are authorized by USFWS to hold, sell, and transfer the Credits to the City pursuant to the terms and conditions of the approved Kaufman HCP.

17. **Attorneys' Fees.** In the event either of the Parties finds it necessary to bring an action at law or other proceeding against the other to enforce any term, covenant, or condition of this Agreement or any instrument executed pursuant to this Agreement, or by reason of any breach or default under this Agreement, the prevailing party in any such action or proceeding (and any subsequent appeal) shall be paid all costs and reasonable attorneys' fees by the other party. This provision shall survive Closing.

18. **Unforeseen or Uncontrollable Circumstances.** Neither of the Parties shall be in default or violation as to any obligation of this Agreement, and no condition precedent or subsequent shall be deemed to fail to occur if such party is prevented from fulfilling such obligation by, or such condition fails to occur due to, forces beyond the party's reasonable control, including without limitation, destruction or impairment of facilities resulting from a natural disaster, fire, epidemic, war, riot, civil disturbance, sabotage, epidemic, or an act or failure to act by a court, public authority, or third-party, which forces by exercise of due diligence and foresight such party could not reasonably have expected to avoid.

19. **No Joint Venture.** It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture, or other arrangement between the City and the Sellers. No term or provision of this Agreement is intended to be, or shall be, for the benefit of any person, firm, organization, or corporation not a party to this Agreement, and no such other person, firm, organization, or corporation shall have any right or cause of action under this Agreement.

**IN WITNESS WHEREOF**, the Parties to this Agreement have duly executed this Agreement, to become effective in accordance with the terms of this Agreement.

**SELLERS:**

**KAUFMAN HOLDINGS, INC.**

**KAUFMAN REAL ESTATE, LLC**

By: /s/ John Kaufman

By: /s/ Theresa Wall

Its: President

Its: President

Date: 12-13-16

Date: 12-13-16

**BUYER:**

**CITY OF TUMWATER**

**APPROVED AS TO FORM:**

By: /s/ Peter Kmet

By: /s/ Karen Kirkpatrick

Karen Kirkpatrick, City Attorney

Its: Mayor

Date: 3/9/17

Date: 3-9-17

*[Acknowledgements on following pages]*



STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF THURSTON )

I certify that I know or have satisfactory evidence that John Kaufman is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute the instrument and acknowledged it as the President of Kaufman Holdings, Inc. to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated this 13th day of December, 2016.

/s/ Chad M. Steinbrecher

Print Name: Chad M. Steinbrecher  
Notary Public, State of Washington  
My appointment expires 7-5-2018

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF THURSTON )

I certify that I know or have satisfactory evidence that Theresa Wall is the person who appeared before me, and said person acknowledged that she signed this instrument, on oath stated that she was authorized to execute the instrument and acknowledged it as the President of Kaufman Real Estate, LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated this 13th day of December, 2016.

/s/ Chad M. Steinbrecher

Print Name: Chad M. Steinbrecher  
Notary Public, State of Washington  
My appointment expires 7-5-2018



**APPROVED BY**

**UNITED STATES FISH AND WILDLIFE SERVICE:**

This transfer of Credits authorized by this Agreement is consistent with the terms and conditions described in the Kaufman HCP and Federal Fish and Wildlife Permit No. TE91853B-0 dated March 21, 2016. The Service has verified that the Deschutes Corridor has been established and is in compliance with the terms and conditions of the Kaufman HCP as of the date of this Agreement.

By: /s/ Signature Illegible\_\_\_\_\_

Its: State Supervisor

Date: 12/8/16

A copy of the signed pages follow.

An accessible version of Exhibit A can be requested from the USFWS Lacey Office.

Exhibit B excerpts from the Final Kaufman HCP (Krippner 2016) can be accessed at [https://esadocs.cci-dev.org/ESAdocs/conserv\\_agmt/thcp\\_1464.pdf](https://esadocs.cci-dev.org/ESAdocs/conserv_agmt/thcp_1464.pdf)

17. **Attorneys' Fees.** In the event either of the Parties finds it necessary to bring an action at law or other proceeding against the other to enforce any term, covenant, or condition of this Agreement or any instrument executed pursuant to this Agreement, or by reason of any breach or default under this Agreement, the prevailing party in any such action or proceeding (and any subsequent appeal) shall be paid all costs and reasonable attorneys' fees by the other party. This provision shall survive Closing.

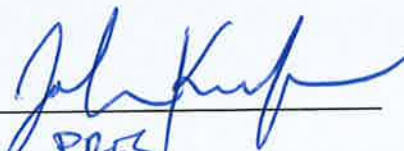
18. **Unforeseen or Uncontrollable Circumstances.** Neither of the Parties shall be in default or violation as to any obligation of this Agreement, and no condition precedent or subsequent shall be deemed to fail to occur if such party is prevented from fulfilling such obligation by, or such condition fails to occur due to, forces beyond the party's reasonable control, including without limitation, destruction or impairment of facilities resulting from a natural disaster, fire, epidemic, war, riot, civil disturbance, sabotage, epidemic, or an act or failure to act by a court, public authority, or third-party, which forces by exercise of due diligence and foresight such party could not reasonably have expected to avoid.

19. **No Joint Venture.** It is not intended by this Agreement to, and nothing contained in this Agreement shall, create any partnership, joint venture, or other arrangement between the City and the Sellers. No term or provision of this Agreement is intended to be, or shall be, for the benefit of any person, firm, organization, or corporation not a party to this Agreement, and no such other person, firm, organization, or corporation shall have any right or cause of action under this Agreement.

IN WITNESS WHEREOF, the Parties to this Agreement have duly executed this Agreement, to become effective in accordance with the terms of this Agreement.


**SELLERS:**

**KAUFMAN HOLDINGS, INC.**

By:   
Its: PRES

Date: 12-13-16

**KAUFMAN REAL ESTATE, LLC**

By:   
Its: Pres

Date: 12-13-16



**BUYER:**

**CITY OF TUMWATER**

By: Peter Kmet

Its: Mayor

Date: 3/9/17

**APPROVED AS TO FORM:**

By: Karen Kirkpatrick  
Karen Kirkpatrick, City Attorney

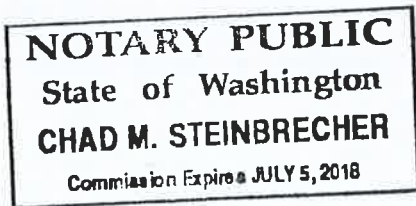
Date: 3-9-17

*[Acknowledgements on following pages]*

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF THURSTON )

I certify that I know or have satisfactory evidence that John Kaufman is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the President of Kaufman Holdings, Inc. to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated this 13th day of December, 2016.

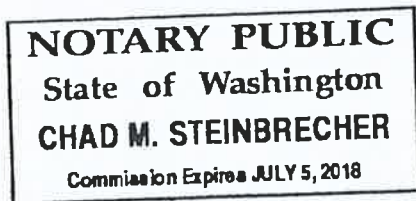


Chad M Steinbrecher  
Print Name: Chad M Steinbrecher  
Notary Public, State of Washington  
My appointment expires 7-5-2018

STATE OF WASHINGTON )  
 ) ss.  
COUNTY OF THURSTON )

I certify that I know or have satisfactory evidence that Therese Wall is the person who appeared before me, and said person acknowledged that he/she signed this instrument, on oath stated that he/she was authorized to execute the instrument and acknowledged it as the President of Kaufman Real Estate, LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated this 13th day of December, 2016.



Chad M Steinbrecher  
Print Name: Chad M Steinbrecher  
Notary Public, State of Washington  
My appointment expires 7-5-2018



**APPROVED BY**

**UNITED STATES FISH AND WILDLIFE SERVICE:**

This transfer of Credits authorized by this Agreement is consistent with the terms and conditions described in the Kaufman HCP and Federal Fish and Wildlife Permit No. TE91853B-0 dated March 21, 2016. The Service has verified that the Deschutes Corridor has been established and is in compliance with the terms and conditions of the Kaufman HCP as of the date of this Agreement.

By:           *Em V. Rankin*            
Its:           *State Supervisor*            
Date:           *12/8/16*



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