

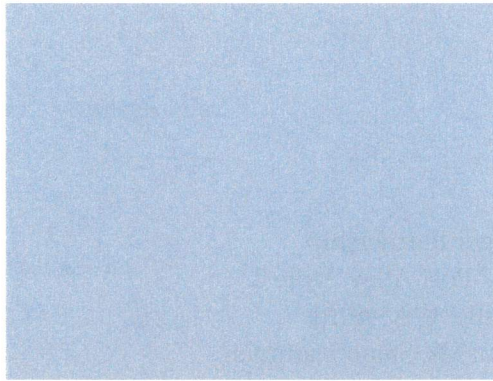
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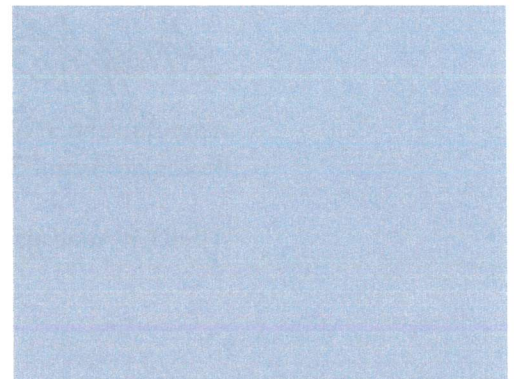
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MAZAMA POCKET GOPHER STUDY  
Yelm Highway Community Park  
and Future School  
THURSTON COUNTY, WASHINGTON



Submitted To: Berger Partnership  
1927 Post Alley, Suite 2  
Seattle, WA 98101  
Attn: Ms. Steph Hammer

Subject: MAZAMA POCKET GOPHER STUDY, YELM HIGHWAY COMMUNITY  
PARK AND FUTURE SCHOOL, OLYMPIA, WASHINGTON

Shannon & Wilson prepared this report and participated in this project as a subconsultant to Berger Partnership. Our scope of services was approved on June 28, 2019, and amended on September 9, 2021. This report was prepared to satisfy requirements for projects in areas occupied by Mazama pocket gophers that are seeking coverage under the Thurston County Habitat Conservation Plan, and was prepared by the undersigned.

We appreciate the opportunity to be of service to you on this project. If you have questions concerning this report, or we may be of further service, please contact us.

Sincerely,

SHANNON & WILSON



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Biologist/Permit Specialist



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## ACRONYMS

BMPs	Best Management Practices
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
MPG	Mazama pocket gopher
NRCS	Natural Resources Conservation Service
PHS	Priority Habitats and Species
Project	The Yelm Highway Community Park and Future School Project
TCC	Thurston County Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife
WSS	Web Soil Survey
YPGN	Yelm Pocket Gopher North

# 1 INTRODUCTION

## 1.1 Project Location

The Yelm Highway Community Park and Future School Project (Project) is located on 86.25 acres to the south of Yelm Highway Southeast at 3327 Yelm Highway SE, Olympia, Washington 98501 (Section 41/40, Township 18N/17N, Range 1W), parcel numbers 09330005001, 09330005000, 09330006000, and 09330008002 (Figure 1). The Project is located in unincorporated Thurston County. The Project site is bordered to the west and east by residential neighborhoods and undeveloped areas and a residential neighborhood delineates the southern border.

## 1.2 Project Description

The City of Olympia Parks, Arts and Recreation Department plans to develop the site by constructing playing fields and courts, hiking trails, an off-leash dog park, restroom/storage facilities, light poles and other utilities, stormwater infiltration facilities, and other structures. The Olympia School District also has proposed the co-location of a future secondary school campus on 22.91 acres of the site along the Yelm Highway frontage. Figure 2, prepared by Berger Partnership, is the site plan developed for the Project's Master Plan, including the future school campus.

## 1.3 Study Objectives

The Mazama pocket gopher (MPG, *Thomomys Mazama*) is a Thurston County-designated important species protected under the County's Fish and Wildlife Habitat Conservation Area regulations, a State-listed Threatened species, and a federally designated Threatened species. The MPG is known to occur on the Project site. The objectives of this study are to:

- Conduct a background review of information relating to the study area.
- Document MPG mounds found during the site visits.
- Identify applicable federal, state, and local regulations pertinent to MPG.
- Discuss proposed MGP regulation compliance.

The Project site includes a number of other critical areas (wetland, stream, critical aquifer recharge area, frequently flooded areas, and other fish and wildlife habitat conservation areas). Those critical areas are evaluated in a separate critical areas report (Shannon & Wilson, 2023).

## 2 STUDY AREA DESCRIPTION

The site is relatively flat and is partitioned into:

- Agricultural and grass fields (Exhibit 2-1);
- One occupied and one vacant residential properties;
- Upland and wetland forest at the south end of the site;
- Emergent wetland and a ditched stream at the southwest corner of the site; and
- Small clusters of trees scattered throughout the northeast, southwest, and middle sections of the site.



**Exhibit 2-1: Mowed and Tilled Agricultural Fields in the Study Area**

The naturally vegetated areas are dominated by an overstory of Douglas-fir (*Pseudotsuga menziesii*, FACU), western red cedar, big leaf maple (*Acer macrophyllum*, FACU), and red alder; an understory of mixed shrubs and woody vines including osoberry (*Oemleria cerasiformis*, FACU) and small amounts of invasive Himalayan blackberry; and an herbaceous layer dominated by reed canarygrass and other grasses, sword fern (*Polystichum munitum*, FACU), and other mixed native and non-native species. Of particular note was a large patch of Scotch broom at the northeast corner of the upland forest. The upland forest contains a few snags, with abundant indicators of use by birds for foraging and possible nesting.

## 3 METHODS

### 3.1 Review of Existing Information

Prior to conducting fieldwork and again prior to report preparation, the following background information was reviewed:



- Washington Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) on the Web interactive mapping system (WDFW, 2022)
- Thurston County GeoData Center Permitting Map (Thurston County, 2022)
- Thurston County GeoData Center Habitat Conservation Plan Map (Thurston County, 2023)
- U.S. Department of Agriculture Natural Resources Conservation Service (USDA NRCS) Web Soil Survey (WSS) interactive mapping system (USDA NRCS, 2022)

The WDFW PHS interactive mapping system (WDFW, 2022) shows the occurrence of MPG on parcel number 09330005000 (recorded in 2006 and 2013) and 09330006000 (recorded in 2013) on the Project area and just west of the northwest corner of parcel 09330008002 (recorded in 2014) outside of the Project area. There were also several MPG mounds in the residential neighborhood south of the Project area recorded in 2015 and 2017.

Thurston County Habitat Conservation Plan Map (Thurston County, 2023) maps the entire study area, outside of an on-site wetland in the southwest corner of the site, as More Preferred for gopher indicator soils (Figure 3). NRCS WSS interactive mapping system (USDA NRCS, 2022) maps these More Preferred areas as Nisqually loamy fine sand, 0 to 3% slopes and Nisqually loamy fine sand, 3 to 15% slopes.

### 3.2 Mazama Pocket Gopher Surveys

WDFW and USFWS jointly offer an MPG training course that provides instruction in the implementation of USFWS' MPG survey protocol (USFWS, 2018). A formal survey to prove absence involves multiple site visits and inspection of the ground along transects spaced 5 meters apart and is only valid through October 31 of the following year. Observation and proper recording of an MPG mound by a biologist trained in the protocol is the only requirement to confirm the occupation of a parcel by MPG. Once occupancy is determined, the parcel will be permanently listed as occupied and no additional surveys will be required.

In 2019, biologists visited the site to conduct a critical areas inventory. During this time, incidental observations of potential MPG mounds were documented; however, because the Project was in its early planning and design stages, the City requested that formal transects required by the MPG survey protocol of MPG be postponed until a later date. In 2021, the Project moved into a new phase, and formal surveys following USFWS' MPG survey protocol were conducted.

MPG mounds were identified and documented by a biologist trained in the MPG protocol (USFWS, 2018). Following the protocol, the site investigation was conducted between

June 1 and October 31, mounds and mound groups were mapped using an Eos Arrow GNSS receiver connected to the ArcGIS Collector application, and mound survey data was documented using the USFWS survey form, which is included in Appendix A. Documenting a MPG mound (incidentally or during formal surveys) on a parcel listed as not-occupied will update the site to occupied in Thurston County's online permit status lookup, negating the need for additional surveys or transects in the future.

## 4 SURVEY RESULTS

### 4.1 2019

During the 2019 site visits, five MPG mound groups were documented across parcel 09330008002 (Exhibit 4-1). All mounds found were documented following USFWS protocol using survey data sheets developed by USFWS (Appendix A). Based on USFWS protocols, it only takes one documented MPG mound to classify a parcel as occupied by MPG. Based on information mapped on PHS on the Web (WDFW, 2022) (occurrence of MPG on parcel numbers 09330005000 and 09330006000) and findings during the site visit (MPG mounds documented on parcel 09330008002), all parcels associated with the Project except for parcel 09330005001 were initially considered occupied by MPG.

### 4.2 2021

In 2021, the biologists completed an official survey to support Project authorization under the County's Habitat Conservation Plan (HCP). As determined in 2019, occurrence of MPG on parcel number 09330005000 and 09330006000 had already been documented by WDFW and therefore the survey focused on the remaining parcels 09330008002 and 09330005001. During the site visit, MPG mounds were documented on both parcels; three mound groupings were found on 09330005001 (Figure 4 and Exhibit 4-1) and over 100 mound groupings (which equates to several thousand individual mounds) were found on parcel 09330008002 and an additional mound at the southeast corner of parcel 09330005000 (Figure 5). Gopher activity on the parcels appeared to be ongoing, with fresh mounds appearing on top of older mounds across the site.

Figure 6 shows the WDFW mapped occurrences, the 2019 and 2021 occurrences surveyed for this Project, and other identified critical areas.





**Exhibit 4-1: Mazama Pocket Gopher Mound Documented on June 26, 2019, (Left) and July 29, 2021 (Right)**

## 5 REGULATIONS

### 5.1 Thurston County

The MPG already mapped on portions of the Project area and the newly identified MPG located during development of this report are an important animal species regulated under Chapter 24.25 Thurston County Code (TCC). Thurston County requires a Critical Areas Review Permit “for all development permits for properties that may be impacting critical areas and associated buffers” (TCC 24.40.010). The permit application and supporting documents are reviewed by Thurston County’s Resource Stewardship Department. TCC 24.25.075 requires an assessment of impacts and development of case-specific buffers based on available WDFW management recommendations. The MPG management recommendations (WDFW, 2011) emphasize avoidance, proposing a buffer of 18.5 feet around each mound and then tripling the buffer area to comprise a defined “habitat protection area.” Additional recommendations describe potential fencing, signage, vegetation management, chemical use, and other measures to preserve the habitat protection area. However, because the MPG is a federally listed species, the WDFW management recommendations have less authority.

Thurston County worked with USFWS over a number of years to create a countywide HCP and receive an Incidental Take Permit (ITP). The HCP was approved and the ITP issued on July 1, 2022. Since that time, the County developed and adopted an ordinance integrating the HCP and the ITP into County code, which went into effect on January 1, 2023. The new regulations will be codified in a new Chapter 17.40, Habitat Conservation Plan



Implementation. The County has also developed a permit process and special applications. The basic permitting process, as outlined on the County's HCP webpage, is as follows:

- Projects on properties with mapped HCP soils go through the HCP permit process.
- The County will visit the project property to make sure County maps match real-world conditions, but visits will happen year-round.
- The County will check site plans for use of HCP Best Management Practices (BMPs). If not used to the fullest extent, revisions will likely be requested because the County's federal permit requires this.
- HCP mitigation fees will be calculated by County staff based on final submitted site plan and project materials, when and if the HCP goes into effect.
- Permitted projects will get a Certification of Inclusion to show coverage by the County's HCP and Federal Permit.
- Other County permit application processes and regulations apply.

## 5.2 Federal

Under Section 10(a)(1)(B) of the Endangered Species Act, an individual or private citizen may request the "taking" of a listed species provided they develop an HCP, which demonstrates that they have adequately minimized and mitigated the effects of the action to the maximum extent practicable. HCPs can cover a single impact to one species or they can be large and cover the breadth of impacts to multiple species over a large area like a county or municipality. Thurston County has been in the process of acquiring a countywide HCP and was issued the approved ITP on July 1, 2022. With this approval, applicants can now satisfy the federal requirements under Section 10 through the County's permitting process for the covered species, including MPG.

## 6 HABITAT CONSERVATION PLAN BEST MANAGEMENT PRACTICES

The draft HCP code requires that applicants "demonstrate avoidance and minimization of impacts from their proposed development to the greatest extent practicable following the [BMPs] described in Appendix C of the Thurston HCP (TCC 14.40.075.A.3). Exhibit 5-1 lists each of the BMPs and provides an assessment of how the proposed Project has integrated each one.

**Exhibit 5-1: Analysis of Project Compliance with and Commitment to Habitat Conservation Plan Best Management Practices**

Best Management Practices (Appendix C of Thurston County Habitat Conservation Plan)	Project Compliance with Best Management Practices
<b>Siting and Locating Activities</b>	
1. Avoid impacts by locating development in areas with no mapped habitat or within existing impacted areas (impacts must have been completed prior to 2014)	<p><i>Park Site Selection Scale:</i> In 2014, the City of Olympia Parks, Arts and Recreation Department (OPARD) commissioned the Community Park Suitability Assessment, which evaluated five properties, including the proposed Project site. The assessment determined that each of the properties could accommodate the basic, minimum requirements established for the park, but the proposed Project site was strongly recommended and ultimately obtained for the following reasons:</p> <ul style="list-style-type: none"> <li>▪ The Project site would have the least impact on native vegetation communities, requiring less than 1% clearing.</li> <li>▪ The Project site has the least stormwater impacts and is best suited for use of Low Impact Development techniques, offering 100% infiltration capability.</li> <li>▪ The least amount of grading would be necessary at the Project site. The next smallest amount of grading of the remaining sites was more than double what will be required at the proposed site.</li> <li>▪ The park requirements could be met at the Project site while still preserving contiguous wetland, stream, wetland/stream buffer, and native forest habitats.</li> </ul> <p>Presence/absence of pocket gophers or gopher habitat was not a consideration during the 2014 assessment.</p> <p><i>School Site Selection Scale:</i> Population projections indicate that a new secondary school will be needed to help prevent overcrowding at existing schools in the southeast section of the Olympia School District (OSD) boundary. Typically, OSD seeks out about 40 acres of land to build a high school, which includes the school building, parking lots, athletic fields, and onsite stormwater management. To reduce the ecological footprint, OSD is:</p> <ul style="list-style-type: none"> <li>▪ Partnering with OPARD to share infrastructure, parking lots, and athletic fields on a shared site.</li> <li>▪ Planning for a highly efficient design of a multi-story school building (building up, rather than out).</li> <li>▪ Maintaining the active lease to Spooner's berry farm to keep the land as a productive agricultural site until a school is built.</li> <li>▪ Decreasing dependence on cars and buses to transport to and from school by siting the school in the community where it is most needed and encouraging walking and cycling through infrastructure improvements.</li> <li>▪ Planning to take advantage of the site's southern exposure to capture solar energy.</li> </ul> <p><i>On-Site Scale:</i> The Project site contains competing sensitive areas and habitats, which are each valuable and protected under a multi-layered system of local, state, and/or federal regulations. These were considered during site planning for the park and school, concurrent with consideration of the park and school's respective requirements that are necessary to meet community needs.</p>



Best Management Practices (Appendix C of Thurston County Habitat Conservation Plan)	Project Compliance with Best Management Practices
	<p>The wetland and its buffer, along with the stream and its buffer, were prioritized for preservation, recognizing that these protected habitat types provide a wide array of functions critical to a large number of species and that they play an expanded role in ecosystem health, water storage and water quality, and air quality, among other values. The section of contiguous native forest in the southeast corner of the site is also an important element of terrestrial wildlife habitat and part of the wildlife corridor that includes the wetland and stream and continues off-site to the south and east. Maintaining forest is also an important strategy to support climate goals.</p> <p>The remainder of the site is documented gopher habitat, so opportunities to locate proposed park and school facilities outside of gopher habitat are not available at this site. A small area (approximately 2 acres) of gopher habitat on the north side of the Life Estate<sup>1</sup> will be preserved; this area includes some mounds.</p>
2. Avoid impacting more-preferred Mazama Pocket Gopher soils if there are both preferred types mapped on the parcel	The only soils on the Project site that are not mapped as More Preferred are hydric soils correspond to a Category II wetland in the southwest corner, which is protected under other federal, state, and county laws and regulations. Avoidance of More Preferred soils is not feasible at this site.
3. Avoid grading by incorporating topography into site design	The existing site condition is largely flat where improvements are proposed, which minimizes the amount of grading. Topographic relief is more pronounced in forested and wetland areas to the south, where proposed development is limited primarily to trails.
4. Align proposed development close to access point for the lot/parcel	To the extent feasible, the majority of the most intensive structures/developments (e.g., buildings, parking) are located at the north and east sides of the Project site off of Yelm Highway SE and the Wiggins Road SE entrance point. However, most of the site outside of the wetland, stream, buffers, and native forest will be modified to accommodate park and school amenities.
5. Request setback variance where it will assist with habitat avoidance and minimization	Considering the prevalence of mapped MPG habitat on the site and the needs of the combined park/school project, setback variances would not provide meaningful habitat avoidance or minimization.
6. Use existing points of entry, roads, and/or travel paths where they provide the necessary site access	As noted above, the primary entry points will be off of established Yelm Highway SE and continuation of Wiggins Road SE.
7. Reduce the width of access roads or driveways. Use pullouts and T-dead ends instead of cul-de-sac where allowed by code.	The proposed Project will follow the appropriate City and County minimum requirements for roads and other vehicular access, particularly as the Project will be accommodating higher volumes of traffic at peak school and park use times.
8. Where possible, align driveways with utility lines	Where possible, utilities are located with access roadways, pathways, or within parking areas.
9. Cluster structures (e.g., residence, accessory structures, and other	The primary cluster opportunity for this Project is at the school site. The proposed school will be a single building to reduce overall footprint. The

<sup>1</sup> The "Life Estate" is an area of the property containing a single-family residence, some outbuildings, and some associated uses. This dedicated area will remain occupied by the former owner under a lifetime lease agreement and will revert to the City after the occupants' passing.



Best Management Practices (Appendix C of Thurston County Habitat Conservation Plan)	Project Compliance with Best Management Practices
appurtenances) and development activities (e.g., staging areas and access points) within a development envelope.	parks operations/maintenance facility is also located adjacent to the park's primary parking area. The colocation of a park and school is essentially allowing for a lot of shared facilities (parking, fields), which reduces the development footprint (and potentially the total MPG impacts) that would have resulted had each use pursued independent projects without the benefit of sharing.
10. All subdivision of land shall cluster developments to minimize fragmentation of the habitat.	This Project does not include subdivision.
11. Configure development in Covered Species habitat to maximize patches of undisturbed habitat and avoid configurations that leave narrow bands of habitat (i.e., maximize the width-to-length ratio of the open space or conservation area).	As noted above, all of the developable area outside of wetland, stream, wetland/stream buffer, and contiguous upland forest is documented gopher habitat. Almost all of that area will be modified to accommodate park and school amenities, except for an approximately 2-acre area of gopher habitat on the north side of the Life Estate. That preservation area is nearly square.
12. Development shall design and maintain adequate habitat connectivity to adjacent undeveloped areas or preserved lands, as determined by the review authority.	The Project site is surrounded by developments on the west and east sides, by Yelm Highway SE to the north, and by forested and wetland non-gopher habitats to the south. There is no meaningful opportunity to provide gopher habitat connectivity to adjacent gopher habitats. Preservation of the wetland, wetland buffer, and contiguous upland forest provides excellent habitat connectivity to off-site areas for non-gopher wildlife.
13. Conservation lots or tracts created shall meet the requirements of Thurston County Code Chapter 24.60 and 24.65.	The entire site is owned and managed by a public entity. The Code does not require this type of park/school development to separate on-site critical areas into a separate lot or tract.
14. All subdivision of land shall provide for the location and construction of public utilities and facilities, such as sewer, gas, electrical, and water systems in a manner that to the extent practicable co-locates with right-of-way or other road or driveways.	The Project does not include subdivision of land.
<b>Construction Minimization</b>	
15. Establish, demarcate, and observe "no work zones" on the project site that will not be affected by proposed construction project. The "no work zone" shall be delineated on site with a temporary fencing barrier prior to commencement of construction activities. The development envelope shall contain all clearing and grading limits, encompass related activities, including site access/points of entry, staging of equipment, stockpiling of	Construction plans will clearly delineate the edges of "no work zones." This will include protection of the wetland/wetland buffer, stream buffer, and native forest. It will also include the small gopher habitat preservation area north of the Life Estate. The Development Envelope is shown in Figure 7.

Best Management Practices (Appendix C of Thurston County Habitat Conservation Plan)	Project Compliance with Best Management Practices
<p>materials, and utility installations. The "no work zone(s)" and clearing and grading limits must be clearly identified on the approved site plans and verified on site.</p>	
<p>16. Implement approved temporary erosion and sediment control plan using all known available and reasonable methods of treatment, prevention, and control of sediment. Implement measures to control and prevent sediments from leaving the development envelope or entering aquatic systems and ensure no foreign material is side-cast into Covered Species habitat (such as soil, rock, gravel, uncured cement concrete or washout, and asphalt grindings or slurry).</p>	<p>Project plans will include a detailed temporary erosion and sediment control plan intended to reduce erosion risks and maintain sediment within planned disturbance areas and outside of wetlands, streams, buffers, and other protected habitat. The undisturbed gopher habitat area north of the Life Estate will marked as a "no work zone" and will not be used for staging, stockpiling, or disposal.</p>
<p>17. Develop a Stormwater Pollution Prevention Plan (SWPPP) where required pursuant to Thurston County Code Title 15 and as described in Thurston County Drainage Design and Erosion Control Manual (DDECM). Where more than 7,000 sq ft (650 sq m) of soil will be disturbed, prepare a spill prevention, control, and countermeasures plan.</p>	<p>The Project will obtain coverage under Washington State Department of Ecology's Construction Stormwater General Permit prior to construction. The permit requires preparation of and compliance with a Stormwater Pollution Prevention Plan. A Spill Prevention, Control, and Countermeasure Plan will also be prepared to address potential for accidental discharges of contaminants to ground or surface waters.</p>
<p>18. Use the lightest equipment feasible and minimize passes and tracking of equipment over Covered Species habitat to lessen soil damage, compaction, and/or rutting.</p>	<p>Project specifications will require the Contractor to develop and implement a plan that utilizes the lightest equipment feasible and available, and minimizes passes and tracking of equipment over Project areas that will not be converted to development/imperious surfaces.</p>
<p>19. Mow and/or selectively apply herbicide<sup>1</sup> to remove and control noxious weeds and invasive/nonnative/nuisance vegetation in late February/early March (if/when weather and soil moisture conditions allow), and in the late August/early September after native plants have senesced. Also, after Taylor's Checkerspot butterflies and other pollinators have entered diapause (generally by August 1), techniques that minimize soil disturbance are preferred.</p>	<p>Both OPARD and the OSD are committed to integrated pest management. OPARD developed an Integrated Pest Management Program that it applies to all of its parks. The program includes coordination with the Thurston County Weed Control staff and compliance with their noxious weed removal recommendations. It also allows use of chemical controls only as a last resort.</p> <p>The OSD has specific policies for pest management, and require development of a management plan for each site. Similar to OPARD's plan, the OSD strives to use chemical options only when other options are not feasible or practicable.</p>



Best Management Practices (Appendix C of Thurston County Habitat Conservation Plan)	Project Compliance with Best Management Practices
Herbicides may only be used according to their label constraints.	
20. Side-cast native soil material alongside trenches and other excavations, and stockpile and later use these materials to backfill trenches and excavations. Backfill native soil material, with only a minimal amount of light grading, to re-establish original ground contours.	The current nearly flat site and the nature of the proposed improvements lend themselves to a practice of minimal grading and ground disturbance on the site. All material will be retained on site and only structural fill to support buildings or build roadways would be imported, if needed.
21. In habitat for Taylor's Checkerspot Butterfly, delay vegetation mowing until after nectar species have finished flowering and seed production. This date should be determined by when butterflies are in diapause (generally by August 1)	The Project site is not in Taylor's checkerspot butterfly habitat.

## 7 IMPACTS AND MITIGATION FEE

Project objectives included avoidance and minimization of direct adverse impacts to critical areas, consistent with the achievement of park and school objectives. This has included reconfiguration of some early concepts to keep the loop path outside of the reduced wetland buffer and rearrangement of the various ballfield and other recreational amenities to remove those facilities from buffers. As the entire site outside of forested and wetland areas is considered habitat for MPG, avoidance of adverse impacts to MPG was not feasible without compromising the purposes of the Project.

The mitigation fee is based on the area of impacts to MPG habitat, which is the Project's Development Envelope minus non-habitat areas, such as forest, wetland, existing legal structures, and hard/impervious surfaces (Figures 7 and 8). Of the 86.25 acres, approximately 54 acres is impacted MGP habitat. MPG occupancy and MPG soil preference determine the Habitat Value. The Habitat Value is then multiplied by the MGP impact area in square feet to determine the total estimated credits required to offset the impacts. The Project takes place on known Occupied lands and the soils are classified as More Preferred, giving it a Habitat Value of 1.6. Therefore, the amount of required credits is 3,759,712.00. The final fee considerations are the location of the impact, which relates to cost and availability of mitigation lands. Projects in the Yelm Pocket Gopher North (YPGN) service area currently must pay the \$0.47 credit cost per square foot plus an additional 1.25



multiplier to account for the current availability of mitigation credits only outside the YPGN service area. Fees must be paid to Thurston County.

Based on the County's Habitat Conservation Permit Mitigation Fee Planner worksheet (Appendix B), the preliminary total mitigation fee estimate for the Project is \$2,208,830.80. Exhibit 7-1 breaks down the cost per stakeholder. The final fee amount must be approved by County staff during permit review and is required to be paid in full before the issuance of the Certificate of Inclusion.

**Exhibit 7-1: Estimated Mitigation Fees**

Stakeholder	MPG Impact Area (sq ft)	Mitigation Fee
City of Olympia Parks, Arts and Recreation Department	1,356,313	\$1,274,934.22
Olympia School District	993,507	\$993,896.58
<b>Totals</b>	<b>2,349,820</b>	<b>\$2,208,830.80</b>

## 8 REFERENCES

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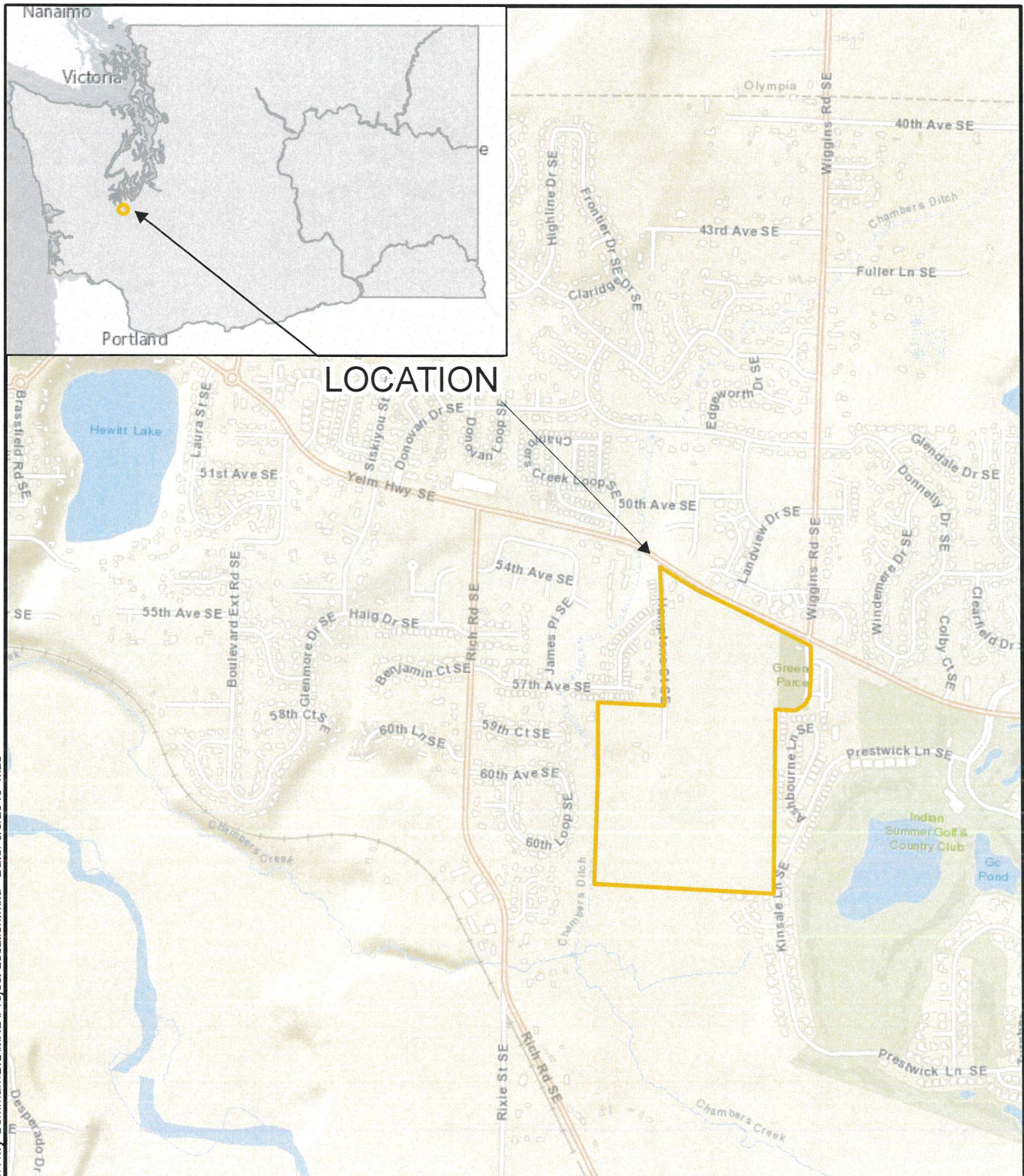
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<http://apps.wdfw.wa.gov/phsontheweb/>, accessed October 21, 2022.




Filename: I:\EF\SEA\103000s\103284 Yelm Hwy Comm\GIS\MXD\Project Location.mxd Date: 9/5/2019 mac



## Legend

 Project Location



0 625 1,250 2,500  
 Feet

Yelm Highway Community Park & Future School  
Olympia, Washington

## Vicinity Map

February 2023

103284-012

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FIG. 1







# Yelm Highway Community Park Master Plan

## Infrastructure

- 01 Entry Drive
- 02 Emergency Access
- 03 Bioretention/Stormwater Facilities
- 04 Parking (390 stalls)
- 05 Drop-off
- 06 Maintenance Facility

## Park Core Amenities

- 07 Entry Plaza
- 08 Welcome Kiosk
- 09 Restrooms
- 10 Picnic Shelters
- 11 Loop Path (accessible)
- 12 Synthetic Turf Rectangular Fields with Lighting
- 13 Sport Courts
- 14 Playground
- 15 Sprayground
- 16 Skate Park
- 17 Dog Park
- 18 Bike Skills Park
- 19 Community Garden

## Wetland

- 20 Wetland Boundary
- 21 Wetland Buffer
- 22 Boardwalk
- 23 Native/Mitigation Planting
- 24 Potential Future Connection to Chehalis Trail

## Parkwide

- 25 Site Furnishings (benches, tables, bike racks, waste/recycling receptacles)
- 26 Park Identification

## Shared Facilities

- 27 Shared Full-Sized Track and Field
- 28 Shared Parking (490 stalls)
- 29 Shared Tennis Courts

**Wetland Note:** The wetland and associated buffer have been identified and delineated in a Critical Areas Report prepared by Shannon & Wilson, dated September 16, 2021. For the purposes of preparing the master plan, the wetland boundaries and associated buffers shown herein have been located approximately and should be used for general reference only.

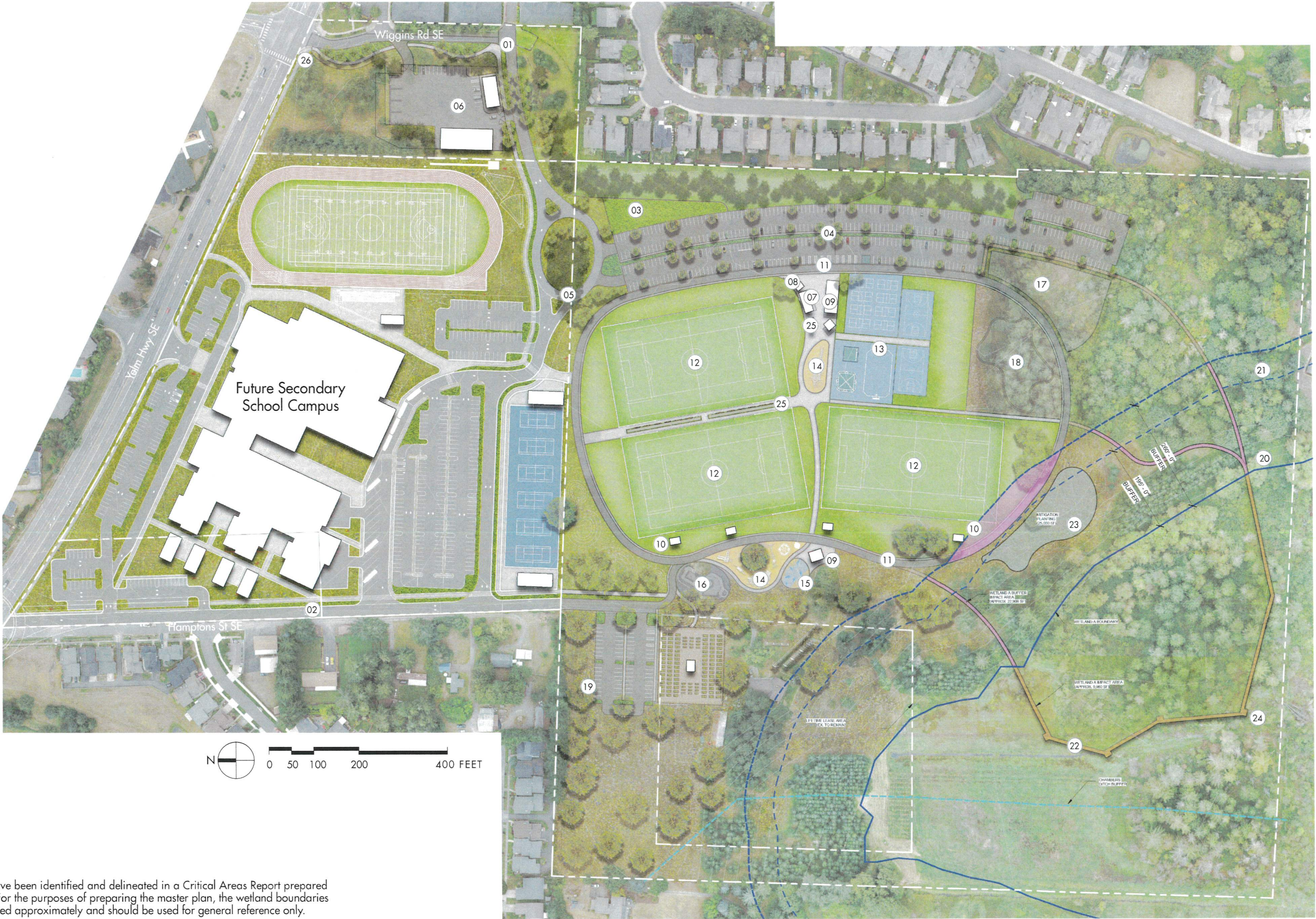


FIG. 2









## Legend



Project Location



Note: Map screenshot acquired from Thurston County Habitat Conservation Plan Map, [https://map.co.thurston.wa.us/Html5Viewer/index.html?viewer=HCP\\_Public\\_Interface.Main](https://map.co.thurston.wa.us/Html5Viewer/index.html?viewer=HCP_Public_Interface.Main) on 01/5/2023.

Yelm Highway Community Park & Future School  
Olympia, Washington

Thurston County  
Pocket Gopher Soils Map

February 2023

103284-012

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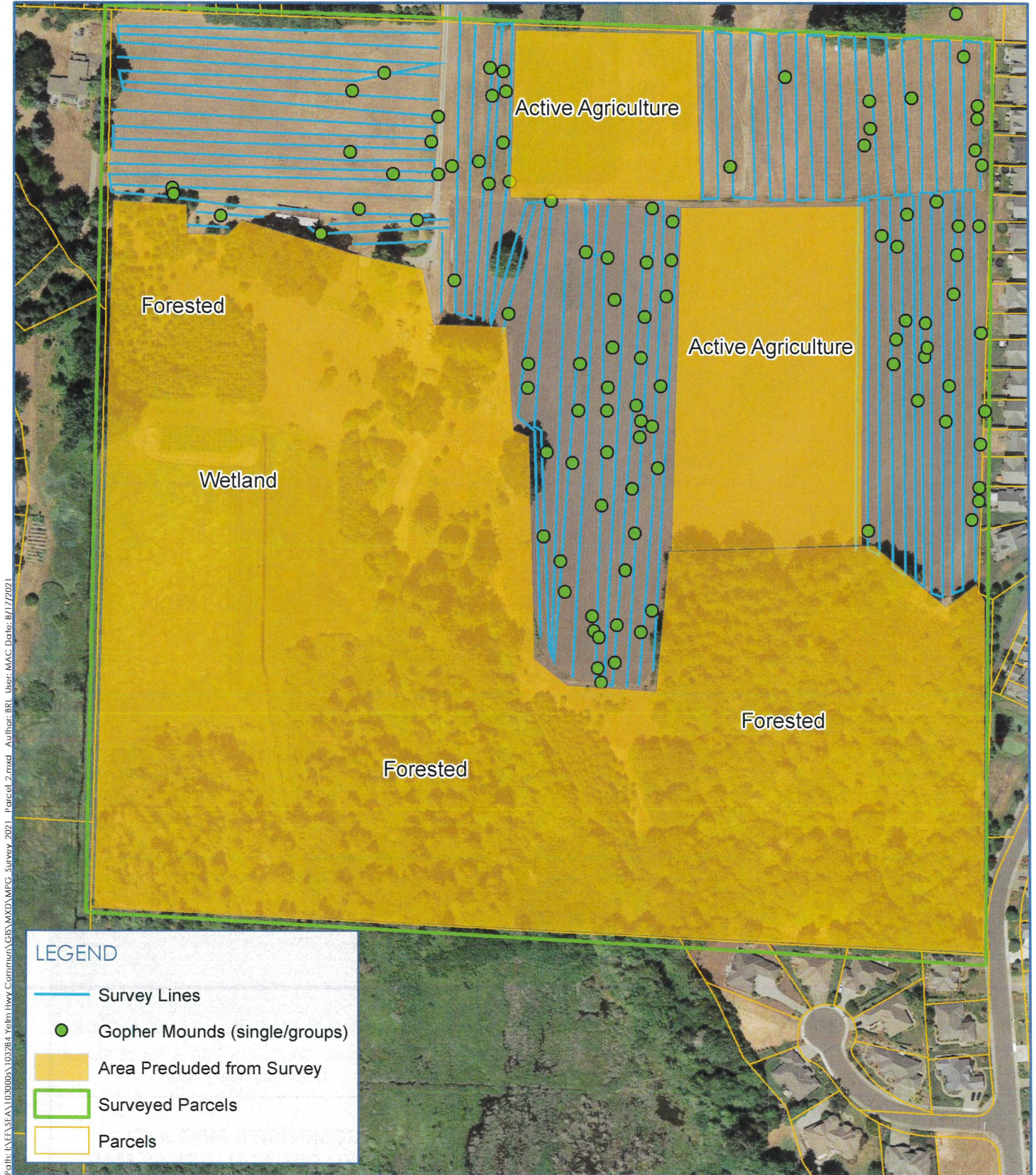
**FIG. 3**





February 2023  
**Survey Map**  
**Parcel 09330005001**  
**Figure 4**





February 2023

**Survey Map**

**Parcels 09330008002 & 09330005000**

**Figure 5**



Filename: I:\EFSEA\103284 Yelm Hwy Commu\GIS\MXD\Site Plan update 2021.mxd Date: 9/15/2021 MAC



### Legend

- |                             |  |
|-----------------------------|--|
| Parcels                     | Stream Buffer 200 ft.                      |
| Wetland A                   | Oaks                                       |
| Wetland A buffer 260 ft. ** | Onsite Parcels with Confirmed MPG Presence |
| OHWM                        | MPG Mounds discovered during site visits   |
| Project Bounds              | MPG: WDFW PHS confirmed occurrence*        |

Notes: \* MPG WDFW PHS confirmed occurrence information pulled from PHS on the Web. Points indicated general location of previously documented mounds.

\*\* For wetlands with H,H,L habitat ratings, the standard buffer is 260 feet. Thurston County code allows for reducing the standard buffer width to 195 feet if mitigation is conducted following TCC 24.30.050.

Yelm Highway Community Park & Future School  
Olympia, Washington

## COMPOSITE MPG AND OTHER CRITICAL AREAS MAP

February 2023

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FIG. 6



Filename: \\shanwil.net\EP\GIS\SEA\103284 Yelm Hwy Commun\GIS\MXD\HCP\_P Project Envelope\_1.mxd Date: 2/3/2023 MAC



## Legend



Total Development Envelope



Yelm Highway Community Park & Future School  
Olympia, Washington

## MPG MITIGATION DEVELOPMENT ENVELOPE

February 2023

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**FIG. 7**



Filename: \\shanwil.net\EGIS\SEA\103284 Yelm Hwy Commu\GIS\MXD\HCP\_P Project Mitigation\_1.mxd Date: 2/3/2023 MAC



## Legend

-  City of Olympia Parks (1,356,313 sq ft)
-  Olympic School District (993,507 sq ft)
-  Parcels



Yelm Highway Community Park & Future School  
Olympia, Washington

## MPG MITIGATION IMPACT AREAS

February 2023

103284-012

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**FIG. 8**



Appendix A

# Mazama Pocket Gopher Mound Survey Forms

Site Name and Parcel #	Parcel #: <u>09330005001 (Northwest Corner)</u> Project #: _____ Site/Landowner: <u>City of Olympia</u>
How were the data collected? (circle the method for each)	Transect: <b>Trimble</b> <b>Garmin</b> <b>Aerial</b> Esri Collector Mounds <b>Trimble</b> <b>Garmin</b> <b>Aerial</b> Esri Collector  Notes: Transects of one surveyor collected in the field. Additional transect lines of second surveyor added post survey in ArcMap using the distances used in the field.
Field Team Personnel: (Indicate all staff present, CIRCLE who filled out form)	Name: Merci Clinton Name: Amy Summe Name:
Others onsite (name/affiliation)	
Site visit # (CIRCLE all that apply)	1 <sup>st</sup> 2 <sup>nd</sup> <b>Unable to screen</b> Notes: Mounds found on 1st survey, no additional surveys conducted.
Do onsite conditions preclude the need for further visits?	Yes          No  Dense woody cover that encompasses the entire site (trees/shrubs) that appears to preclude any potential MPG use.  Impervious      Compacted      Graveled      Flooded Other _____ Notes:
Describe visibility for mound detection:	Poor      Fair      Good      Notes: Most of the site had been recently mowed, and the portion of the site that had not still had relatively short sparse vegetation that did not preclude identifying mounds.
Request mowing? (CIRCLE and DESCRIBE WHERE MOWING IS NEEDED and SHOW ON AERIAL PHOTO)	Yes      No      N/A      Notes: Site was mowed recent enough that mounds were visible during the survey.



Mounds observed over the whole site are characteristic of:  Quantify or describe amount of each type and approx. # of mounds  <i>Group = 3 mounds or more</i>	MPG Mounds	Likely MPG Mounds	Indeterminate	Likely Mole Mounds	Mole Mounds
	Single mounds 2  Groups 1				
	No MPG mounds (circle)				
MPG mounds in GPS?  (CIRCLE and DESCRIBE)  If MPG mounds present, entered in GPS?	None      All      Most      Some  Notes:  Yes      No      N/A				
Does woody vegetation onsite match aerial photo?	Yes      No - describe differences and show on parcel map/aerial:				
What portion(s) of the property was screened?  (CIRCLE and DESCRIBE)	All      Part - describe and show on parcel map/aerial:  Paved areas, areas with houses, wooded areas, and an area with fencing that we could not access were not surveyed. See map.				
Notes -	Describe, and show on parcel map/aerial if applicable:				
Team reviewed and agreed to data recorded on form?  (CIRCLE, and EXPLAIN if "No")	Yes      No      Reviewed by initials: <u>AJS</u> _____  Notes:				

Site Name and Parcel #	Parcel #: <u>09330008002 (Southern Parcel)</u> Project #: _____ Site/Landowner: <u>City of Olympia</u>
How were the data collected? (circle the method for each)	Transect: <b>Trimble</b> <b>Garmin</b> <b>Aerial</b> Eos Arrow GNSS receiver Mounds <b>Trimble</b> <b>Garmin</b> <b>Aerial</b> Eos Arrow GNSS receiver  Notes: Transects of one surveyor collected in the field. Additional transect lines of second surveyor and added post survey in ArcMap using the distances used in the field.
Field Team Personnel: (Indicate all staff present, CIRCLE who filled out form)	Name: Merci Clinton Name: Amy Summe Name:
Others onsite (name/affiliation)	
Site visit # (CIRCLE all that apply)	1 <sup>st</sup> 2 <sup>nd</sup> <b>Unable to screen</b> Notes: Mounds found on 1st survey, no additional surveys conducted.
Do onsite conditions preclude the need for further visits?	Yes          No Dense woody cover that encompasses the entire site (trees/shrubs) that appears to preclude any potential MPG use.  Impervious      Compacted      Graveled      Flooded Other _____ Notes:
Describe visibility for mound detection:	Poor      Fair      Good      Notes: Most of the site had been recently mowed, and the portion of the site that had not still had relatively short sparse vegetation that did not preclude identifying mounds.
Request mowing? (CIRCLE and DESCRIBE WHERE MOWING IS NEEDED and SHOW ON AERIAL PHOTO)	Yes      No      N/A      Notes: Site was mowed recent enough that mounds were visible during the survey.



<b>Mounds observed over the whole site are characteristic of:</b>  <b>Quantify or describe amount of each type and approx. # of mounds</b>  <i>Group = 3 mounds or more</i>	<b>MPG Mounds</b>	<b>Likely MPG Mounds</b>	<b>Indeterminate</b>	<b>Likely Mole Mounds</b>	<b>Mole Mounds</b>
	Single mounds 3  Groups 113	2			3
	<b>No MPG mounds (circle)</b>				
<b>MPG mounds in GPS?</b>  <b>(CIRCLE and DESCRIBE)</b>  <b>If MPG mounds present, entered in GPS?</b>	<div> <div>None</div> <div>All</div> <div>Most</div> <div>Some</div> </div> <b>Notes:</b>  <div> <div>Yes</div> <div>No</div> <div>N/A</div> </div>				
<b>Does woody vegetation onsite match aerial photo?</b>	<div> <div>Yes</div> <div>No - describe differences and show on parcel map/aerial:</div> </div>				
<b>What portion(s) of the property was screened?</b>  <b>(CIRCLE and DESCRIBE)</b>	<div> <div>All</div> <div>Part - describe and show on parcel map/aerial:</div> </div> Areas with active agriculture, areas with houses, wooded areas, and wetland areas not surveyed. See map.				
<b>Notes -</b>	<b>Describe, and show on parcel map/aerial if applicable:</b>  Groups points have anywhere from 5-100 mounds associated with them. Much of the site that is not currently being actively used has high densities of new and old gopher mounds (likely several thousand individual mounds across the parcel.				
<b>Team reviewed and agreed to data recorded on form?</b>  <b>(CIRCLE, and EXPLAIN if "No")</b>	<div> <div>Yes</div> <div>No</div> <div>Reviewed by initials: <u>AJS</u>    _____</div> </div> <b>Notes:</b>				

Appendix B

# Thurston County Habitat Conservation Permit Mitigation Fee Planner





# HABITAT CONSERVATION PERMIT

## Mitigation Fee Planner

*Details at [ThurstonHCP.org](http://ThurstonHCP.org)*

Use the steps below to fill in the blanks on page 2. Your estimated mitigation fee will be automatically calculated. Calculated results are an estimate only. Actual area of impact and fee will be calculated at time of permit application review.

### Step 1: Open the HCP Map and Find Your Property

- **Open the map:**
  - Go to the [HCP Map](#).
- **Find your property on the map.**
  - Click "Find" on menu at top left.
  - Click "By Parcel Numbers".
  - Enter number in box and click Find.
  - An orange outline around your property will show on the map. Go to Step 2.

### Step 2: Find the Gopher Soil Layer You're Building On

- **Click "Map & Layers"** on menu at top left.
  - Click "Show Layer List".
  - Click "Aerial 2020 (Fast)".
- **Turn on the gopher soil layer:**
  - Go into the layers list and click the box next to Mazama Pocket Gopher Soils to turn on layer. Zoom in (plus sign at top left) if you want to see property details (roads, existing buildings, trees, etc).
- **Select the dropdown option below** to match the Mazama Pocket Gopher Soil that you're project will be located on. You'll need this for Step 4. More preferred
- If your project is on more than one gopher soil type, calculate the square footage of the project in each soil type.
- Tip: The soil type you build on affects your mitigation fee. To lower your fee and comply with required Best Management Practices, avoid gopher soils or build on "Less Preferred".

### Step 3: Open the HCP Info Page To Get Species Info

- **Open the HCP Info Page to complete Steps 4 and 5**
  - Click the magnifying glass icon on the bottom left for the "Parcel Boundary" menu.
  - Click "Open HCP Info Page".
  - Keep open and go to Steps 4 and 5 on page 2.

## Step 4: Check for Gopher Habitat

- Using the HCP Info Page, select the dropdown option below to match what's listed.

Mazama pocket gopher soils

Mazama pocket gopher service area

Mazama pocket gopher

More preferred

YPG N

Occupied

## Step 5: Check for Frog, Butterfly, and Bird Habitat

- Select the dropdown option to match what's listed on the Parcel Data Sheet.
- If Oregon spotted frog is listed as "Screen", see staff.

Taylor's checkerspot butterfly

Oregon vesper sparrow

Unknown

Unknown

## Step 6: Calculate Estimated Mitigation Fee

- Enter the project area in square feet below from your site plan. The remainder of the boxes will self-populate based on selections above. 1 acre = 43,560 square feet.

2,349,820	X	1.60	=	3,759,712.0000
Project Area (sq ft)		Habitat Value		Sq Ft Project Habitat Value
\$ 0.47	X	3,759,712.0000	=	\$ 1,767,064.64
Credit cost per sq ft		Sq Ft Project Habitat Value		Mitigation Fee Estimate

- If your project is located in YPG E or YPG N, you must mitigate impacts in YPG S. There are currently no mitigation credits available in the YPG E or YPG N service areas.
  - You must multiply your Habitat Value by 1.25, which increases your Mitigation Fee Estimate by 1.25.

Is your project in YPG E or YPG N?

Yes

New Mitigation Fee Estimate

\$ 2,208,830.80

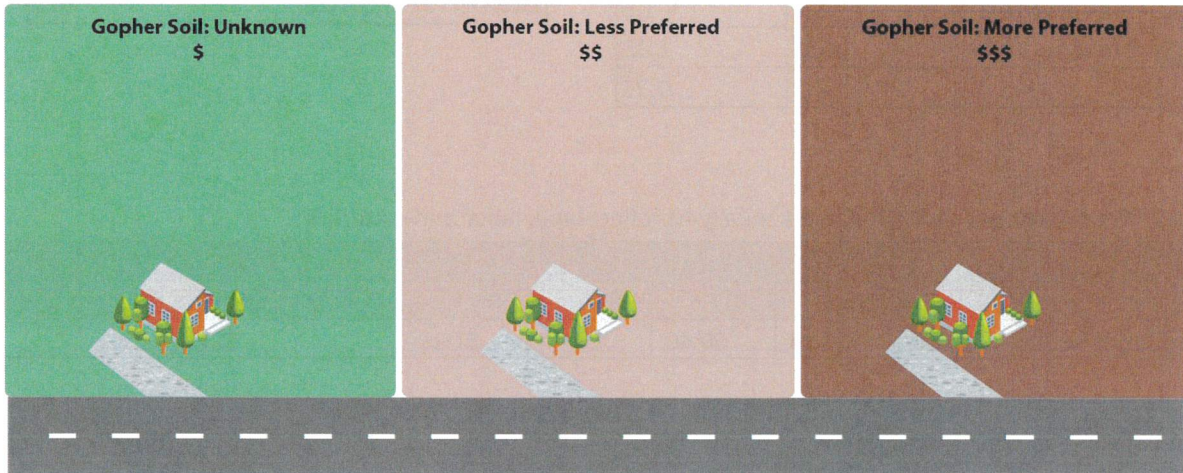


## Required HCP Best Management Practices

Your site plan must demonstrate the use of the HCP Best Management Practices. If HCP BMPs are not used, you will be asked to revise your project. Read the HCP BMPs.

- **Avoid Impact.**

- Site the project outside of Endangered Species Act protected habitat.
- Avoid gopher soils or build on "Less Preferred" if you can.
- You must avoid other critical areas when locating your project (flood zones, wetlands, landslide hazard areas, etc).



- **Minimize Impact.**

- **Impact Area includes:** House, outbuildings, well, septic, driveway, landscaping, and anywhere that will be graded.
- **Cluster Development:** Place buildings close together. Typical distance from your house to a shed or other out-building is 10-15 ft. This suggestion is not for agricultural buildings.
- **Build 2-story** rather than 1-story homes.
- **Minimize driveway:** Reduce the distance of buildings from the road. The minimum requirement for a driveway is 20 ft wide and 20 ft long.
- **Construction staging** is part of the impact area. Set up in areas already being impacted by project.



## Reference

The information below was used to calculate the above formulas for the mitigation fee estimate. Detailed descriptions at [ThurstonHCP.org](http://ThurstonHCP.org)

**Table 1: Habitat Value** (Detailed descriptions at [thurstonHCP.org](http://thurstonHCP.org))

Gopher Habitat Value			Bird and Butterfly Habitat Value	
	More preferred soils	Less preferred soils		
Occupied by gophers	1.6	1.6	Bird habitat	0.4
Near gophers	1.55	1.35	Butterfly habitat	0.3
Unknown	1.2	0.75		

**Table 2: Credit cost per sq ft** (Updated annually to reflect land, labor and materials)

	Gopher Sub-Species					Bird & Butterfly	
Species	TPG	YPG S	YPG E	YPG N	OPG	OR vesper sparrow	Taylor's checkerspot
Credit cost per sq ft	\$0.30	\$0.34	\$0.40	\$0.47	\$1.18	\$0.47	\$0.87