HENDERSON PROPERTY

CITY OF TUMWATER, WASHINGTON

MAZAMA POCKET GOPHER REPORT

Prepared By:

Curtis Wambach, M.S. Senior Biologist and Principal

Curto intalle



10 July 2023

360-790-1559

www.envirovector.com

EnviroVector

1441 West Bay Drive, Suite 301 Olympia, WA 98502

Phone: (360) 790-1559

Email: curtis@envirovector.com



10 July 2023

Jeff Pantier Hatton-Godat-Pantier 3910 Martin Way E, Suite B Olympia, WA 98502

Reference: 7501 HENDERSON BLVD SE Subject: Mazama Pocket Gopher Screening

Dear Mr. Pantier:

At your request, EnviroVector has prepared this Mazama pocket gopher report on the subject property (**Table 1**; **Figure 1**).

Table 1. Subject Property

No#	Address	Parcel Number	Map Coordinates	Area	
1	7501 HENDERSON BLVD SE	12711110300	S11 T17N R2W	10	
1 Parcel	Total Size				

The permitting jurisdiction is the City of Tumwater.

1.0 INTRODUCTION

The purpose of this study is to evaluate whether Mazama pocket gopher mounds occur on the subject property and to summarize the findings of the field evaluation. However, the entire subject property is entirely forested with dense understory vegetation.

The USFWS (2019) Mazama Pocket Gopher Screening Protocol Checklist states that conditions that would not require screening includes "Sites with greater than 30 percent forested cover with dense understory and no openings." The subject property is a site with greater than thirty percent (>30%) forested cover with dense understory and no openings (**Figures 2 & 3**; **Appendix A, Photos 1-12**). The subject property satisfies the USFWS forested condition to preclude any additional gopher screenings.

Mazama pocket gopher screening occurred on 15 June 2023.

2.0 METHODOLOGY

A Mazama pocket gopher screening was performed per City of Tumwater recommendations in compliance with the USFWS (2019) Mazama Pocket Gopher Screening Protocol Checklist during the USFWS prescribed survey window (June 1st through October 31st).

Soils known to be associated with the Mazama pocket gopher are listed in **Insert 2**.

Insert 2. Mazama pocket gopher soils

Table 1. Soils known to be associated with Mazama pocket gopher occupancy.

Mazama Pocket Gopher Preference	Soil Type					
	Ni - II I - Garage I Ora 2 - Garage I - Gara					
M D C 1	Nisqually loamy fine sand, 0 to 3 percent slopes					
More Preferred	Nisqually loamy fine sand, 3 to 15 percent slopes					
	Spanaway-Nisqually complex, 2 to 10 percent slopes					
(formerly High and	Cagey loamy sand					
Medium Preference Soils)	Indianola loamy sand, 0 to 3 percent slopes					
30115)	Spanaway gravelly sandy loam, 0 to 3 percent slopes					
	Spanaway gravelly sandy loam, 3 to 15% slopes					
	Alderwood gravelly sandy loam, 0 to 3 percent slopes					
Less Preferred	Alderwood gravelly sandy loam, 3 to 15 percent slopes					
	Everett very gravelly sandy loam, 0 to 3 percent slopes					
(formerly Low	Everett very gravelly sandy loam, 3 to 15 percent slopes					
Preference Soils)	Indianola loamy sand, 3 to 15 percent slopes					
	Kapowsin silt loam, 3 to 15 percent slopes					
	McKenna gravelly silt loam, 0 to 5 percent slopes					
	Norma fine sandy loam					
	Norma silt loam					
	Spana gravelly loam					
	Spanaway stony sandy loam, 0 to 3 percent slopes					
	Spanaway stony sandy loam, 3 to 15 percent slopes					
	Yelm fine sandy loam, 0 to 3 percent slopes					
	Yelm fine sandy loam, 3 to 15 percent slopes					
	Term time sandy toam, 5 to 15 percent stopes					



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3.0 BACKGROUND INFORMATION

3.1 Thurston County Geodatabase Soils

Gopher indicator soils are mapped over almost the entire subject property by the Thurston County Geodata Center database (**Appendices B & C**). Two (2) "more preferred" and one (1) "less preferred" gopher indicator soil type has been mapped on the entire subject property by the Thurston County Geodata Center database (**Appendix B & C**; **Table 2**).

Table 2. Summary of Soil

Soil Unit	Gopher Indicator Soil	Preference	Comments
Indianola loamy sand 3-15% slopes	Yes	Less Preferred	
Nisqually loamy fine sand 3-15% slopes	Yes	More Preferred	Completely Forested
Indianola loamy sand 0-3% slopes	Yes	More Preferred	

3.2 WDFW Priority Habitats and Species (PHS) Database

No Mazama pocket gophers have been mapped on the subject property by the WDFW Priority Habitat Species (PHS) database (**Appendix D**).

The Mazama pocket gopher has been mapped offsite approximately across Henderson Boulevard.

4.0 FIELD RESULTS

4.1 Mazama Pocket Gopher Site Evaluation

The USFWS (2019) Mazama Pocket Gopher Screening Protocol Checklist states that conditions that would not require screening includes "Sites with greater than 30 percent forested cover with dense understory and no openings." The subject property is a site with greater than thirty percent (>30%) forested cover with dense understory and no openings (**Figures 2 & 3**; **Appendix A, Photos 1-12**). The subject property satisfies the USFWS forested condition to preclude any additional gopher screenings.

4.2 Mazama Pocket Gopher Habitat Evaluation

No Mazama pocket gopher habitat occurs on the subject property. The subject property is a site with greater than thirty percent (>30%) forested cover with dense understory and no openings (**Figures 2 & 3**; **Appendix A, Photos 1-12**).



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5.0 CONCLUSION

This Mazama pocket gopher summary report was prepared to summarize the results of Mazama pocket gopher screening.

The USFWS (2019) Mazama Pocket Gopher Screening Protocol Checklist states that conditions that would not require screening includes "Sites with greater than 30 percent forested cover with dense understory and no openings." The subject property is a site with greater than thirty percent (>30%) forested cover with dense understory and no openings (**Figures 2 & 3**; **Appendix A, Photos 1-12**). The subject property satisfies the USFWS forested condition to preclude any additional gopher screenings.

If you have any questions or require further services, you can contact me at (360) 790-1559.

Sincerely,

Curtis Wambach, M.S.

Senior Biologist and Principal

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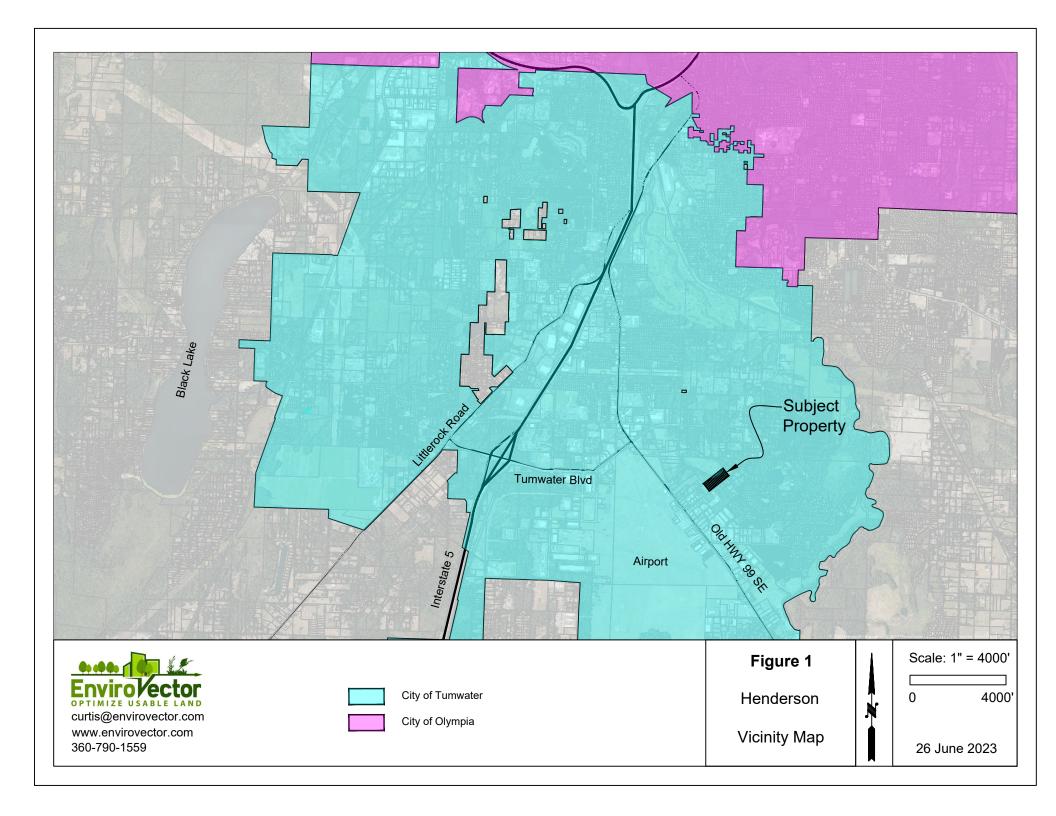
EnviroVector

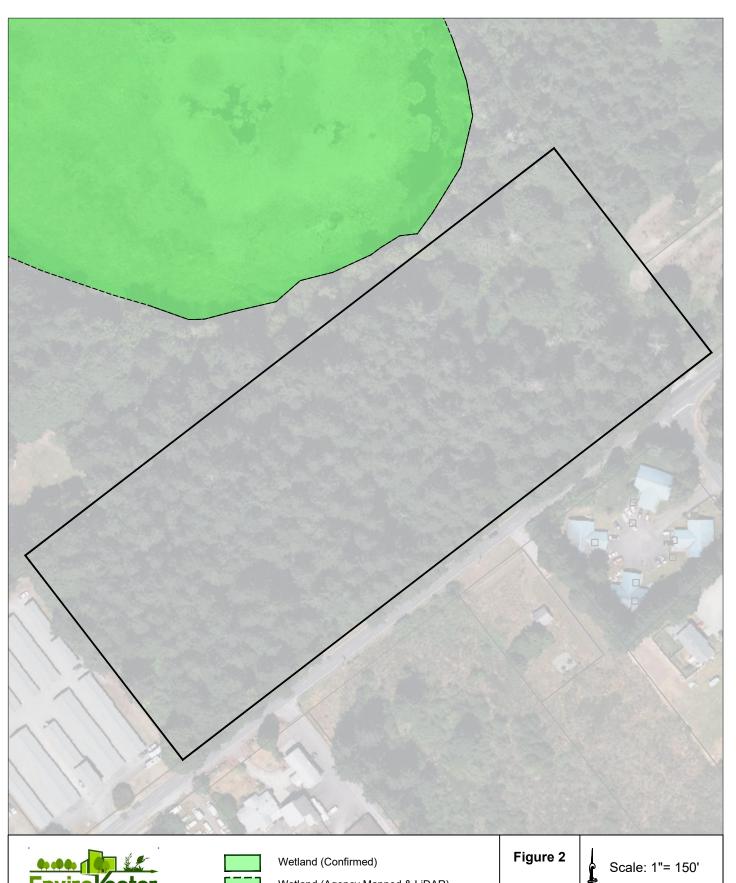
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Berry Valley Road

FIGURES









curtis@envirovector.com www.envirovector.com 360-790-1559



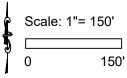
Wetland (Agency Mapped & LiDAR)



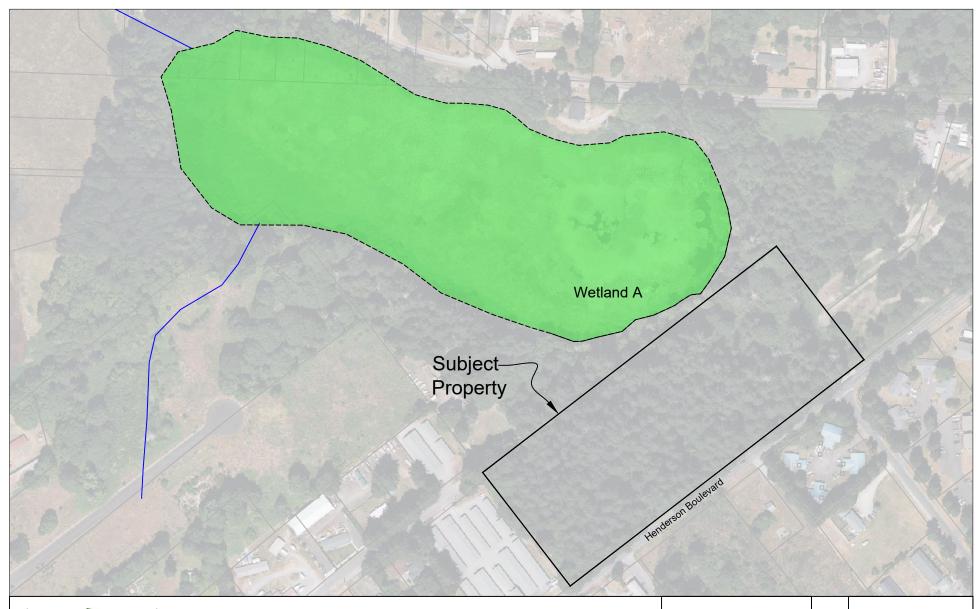
Streams

Henderson

Existing Conditions



26 June 2023







Wetland (Confirmed)

Wetland (Agency Mapped & LiDAR)

Figure 3
Henderson

Existing Conditions Wetland A



Scale: 1" = 270'

270'

26 June 2023

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APPENDIX A

Photo Documentation





Photo 1. Dense forest and understory

Photo 2. Dense forest and understory



Photo 3. Dense forest and understory



Photo 4. Standing water in wetlands



Photo 5. Dense forest and understory



Photo 6. Standing water in wetlands



Photo 7. Dense forest and understory

Photo 8. Dense forest and understory







Photo 9. Diagonal tunnel opening on edge of mound





Photo 11. Diagonal tunnel opening on edge of mound

Photo 12. Diagonal tunnel opening on edge of mound

APPENDIX B

Thurston County Geodatabase

Soils



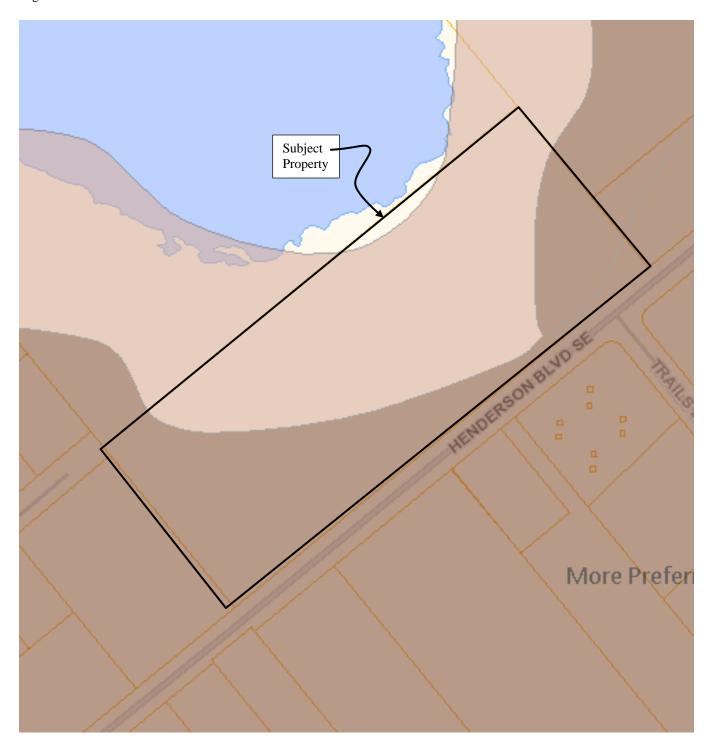


APPENDIX C

Thurston County Geodatabase

Gopher Indicator Soils







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APPENDIX D Priority Habitats and Species (PHS)



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