

Buildable Lands Research Brief Endangered Species Listings & Buildable Lands

Thurston Regional Planning Council
June 2019

BACKGROUND

In 2018, Thurston County contracted with Thurston Regional Planning Council (TRPC) to update its population and employment forecast for Thurston County and the cities, towns, and tribal reservations within. Funding was provided as part of a 2017 Buildable Lands grant from the Washington State Dept. of Commerce. TRPC has provided forecasts for the Thurston Region since the 1960s to support local jurisdiction planning efforts and development of the Buildable Lands Report required under the Washington State Growth Management Act.

The foundation of TRPC's population and employment forecasts is a land capacity model. This model estimates residential capacity on each parcel in the county. Residential capacity is the number of dwellings likely to be built over a 20-year time period, plus a reasonable market factor, i.e. capacity that is not available due to market conditions. The land capacity model considers a variety of factors, including:

- Existing land use and development
- Vested subdivision plans
- Parcel size
- Zoning
- Average development densities
- Critical areas, as they are reflected in development code for various jurisdictions and zoning districts

Existing schools, churches, parks, open space, colleges, prisons, golf courses, commercial and industrial properties, are not considered developable for residential purposes.

Thurston County is home to four species recently listed as endangered or threatened under the Endangered Species Act. These species are listed in Table 1.

Table 1: ESA-Listed Species in Thurston County

Species	Date Listed	Status
Mazama pocket gopher <i>Olympia, Roy Prairie, Tenino, and Yelm subspecies</i>	2014	Threatened
Oregon spotted frog	2014	Threatened
Taylor's checkerspot butterfly	2013	Endangered
Streaked horned lark	2013	Threatened

The listing of these species has increased the burden of developing property where species presence is suspected.

Developers must go through a federal process overseen by the U.S. Fish and Wildlife Services. This process involves multiple site visits, biological reviews, and hiring of consultants. The process can take more than 24 months for a single home. This has led to concerns about the availability of developable

land, particularly in the unincorporated county. A decrease in developable land could have implications for the County’s population forecast, and for planning under the Growth Management Act.

This report provides an overview of development trends since the species were listed and provides recommendations for how TRPC’s land capacity model and forecast should be modified to account for the listings.

SPECIES OVERVIEW

One of the listed species – the Oregon spotted frog – is primarily found in riparian and wetland habitat. Its habitat largely overlaps with wetlands buffers, stream buffers, and other critical areas already considered undevelopable in TRPC land capacity model. For this reason, it was not included in this review.

The remaining three are associated with prairie habitat. Of these, the Mazama pocket gopher has the most extensive habitat and, in many areas, overlaps with the other two. For this reason, it was the primary species considered in this review.

Thurston County, in conjunction with U.S. Fish and Wildlife, identified groups of soils “more preferred” and “less preferred” by the Mazama pocket gophers (Table 2). Areas with these soils are shown in Map 1.

Table 2: Mazama Pocket Gopher Soils added to Parcel’s Total Critical Areas.	
More Preferred	Less Preferred
Nisqually loamy fine sand, 0 to 3 % slopes	Alderwood gravelly sandy loam, 0 to 3% slopes
Nisqually loamy fine sand, 3 to 15 % slopes	Alderwood gravelly sandy loam, 3 to 15% slopes
Spanaway-Nisqually complex, 2 to 10% slopes	Everett very gravelly sandy loam, 0 to 3% slopes
Cagey loamy sand	Everett very gravelly sandy loam, 3 to 15% slopes
Indianola loamy sand, 0 to 3% slopes	Indianola loamy sand, 3 to 15% slopes
Spanaway gravelly sandy loam, 0 to 3% slopes	Kapowsin silt loam, 3 to 15% slopes
Spanaway gravelly sandy loam, 3 to 15% slopes	McKenna gravelly silt loam, 0 to 5% slopes
	Norma fine sandy loam
	Norma silt loam
	Spana gravelly loam
	Spanaway stony sandy loam, 0 to 3% slopes
	Spanaway stony sandy loam, 3 to 15% slopes
	Yelm fine sandy loam, 0 to 3% slopes
	Yelm fine sandy loam, 3 to 15% slopes

Note: Soil preferences are draft and subject to revision.

DEVELOPMENT TRENDS

Since 2000, over 34,000 new dwellings have been permitted in Thurston County. About half of permits (54 percent) were issued by cities and towns with the remainder (46 percent) issued by Thurston County. County issued permits include new homes in the rural and urban unincorporated areas. Map 1 shows the location of permits issued in Thurston County after 2014.

31 percent of county permits issued after 2014 – the year the Mazama pocket gopher was listed – were for homes on parcels with soils “more preferred” by the gopher. This is less than the percentage for the previous 15 years. However, the total number of permits in the five years after the listing was greater than the number issued in the five years prior. Part of the reason for the lower percent of permits on “more preferred” soils is the Silver Hawk subdivision in northeast Thurston County. This subdivision, approved and vested under a much higher density than allowed under current zoning, has led to a large number of

permits on soils not preferred by the pocket gopher.

Cities and towns saw an increase in both the number and percent of permits issued on soils “more preferred” by gophers in the five years after 2014 compared to the five years before. On average, permit trends after 2014 are consistent with those for the fifteen years prior.

Table 3 shows the average number of permits issued before and after the listing by soil preference type.

Table 3: Average Number of Dwellings Permitted per Year by Mazama Pocket Gopher Soil Preference								
	Number				Percent			
	2000-04	2005-09	2010-14	2015-18	2000-04	2005-09	2010-14	2015-18
<u>County-issued</u>								
More Preferred	582	390	172	194	42%	42%	43%	31%
Less Preferred	370	230	108	208	27%	25%	27%	33%
No Preference	435	310	120	227	31%	33%	30%	36%
Total	1,388	930	400	630	100%	100%	100%	100%
<u>City/town-issued</u>								
More Preferred	244	644	172	529	41%	49%	19%	38%
Less Preferred	139	172	202	158	24%	13%	23%	11%
No Preference	206	508	515	709	35%	38%	58%	51%
Total	588	1,323	889	1,396	100%	100%	100%	100%

HABITAT CONSERVATION PLANNING

The Endangered Species Act (ESA) requires an incidental take permit for certain activities that will affect an ESA-listed species. These activities include significant habitat modification that actually kills or injures a listed species through impairing essential behavior such as breeding, feeding, or sheltering. Cities, towns, and counties can apply for incidental take permits to allow activities that would otherwise harm the listed species. The permit requires a Habitat Conservation Plan (HCP) that outlines how the jurisdiction will mitigate the “take.”

Thurston County has submitted a draft Habitat Conservation Plan to the U.S. Fish and Wildlife Service (USFWS) for review. Other jurisdictions are also working on HCPs, including the City of Tumwater and Port of Olympia, the City of Yelm, and Joint Base Lewis-McChord

“Take” and “Harm”

The Endangered Species Act and U.S. Fish and Wildlife define “take” and “harm” as:

Take – “...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”

Harm – “...an act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including, breeding, spawning, rearing, migrating, feeding or sheltering.”

While all these HCPs are still in the draft/development stage it is expected that they will contain similar elements. Notably, they are expected to remove U.S. Fish and Wildlife from the permitting process for new homes, streamlining the application process. Owners applying for a building permit for a new home would be “covered” by the cities’ or county’s HCP and would not have to apply for an additional incidental

take permit with USFWS. They will also include a mitigation process. This is expected to take the form of a “mitigation bank,” or a fund that applicants will pay into that will be used to conserve critical habitat for the four listed species.

CONCLUSIONS

How should TRPC land capacity and population forecast models to be adjusted to account for endangered species listings? Based on development trends since the four species were listed, there has not been a significant shift in development away from soils “more preferred” by the Mazama pocket gopher. There similarly does not appear to have been an overall reduction in new development in the unincorporated County. While the barriers to developing on parcels with listed species have been prohibitive for many property owners, the regional trends – which are most important for forecasting – have not changed.

However, the development of Habitat Conservation Plans does make it likely that critical habitat will be conserved. While the amount and location of conservation land is still unknown, it is most likely to be in the rural, unincorporated county based on the amount of prairie habitat there. Once conserved, this land will no longer have capacity for new residential development and will be removed from the buildable land inventory.

Recommendation

TRPC recommended to its Forecast Advisory Committee that 10 percent of “more preferred” gopher soil area be added to the critical areas on a parcel when estimating residential capacity in the rural, unincorporated county. This will have the effect of reducing buildable land by about 4,000 acres, the equivalent of 250 dwelling units. This reduction should be sufficient to account for land conserved through an HCP mitigation process. This reduction is similar to ones already used by TRPC to account for reduced capacity due to parks and open-space acquisition by jurisdictions, and school site acquisition by school districts.








TRPC did not recommend that residential capacity be reduced due to the increased cost or regulatory burden imposed by endangered species listing. When approved by U.S. Fish and Wildlife, it is expected that the HCPs will streamline the process for permitting homes on listed-species habitat. While it is an important issue, TRPC does address housing affordability when estimating residential capacity. Developing a property with endangered species does increase costs – as does developing property with wetlands, steep slopes, or other critical areas – but does not prohibit development.

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Map 1: Recent Development on Mazama Pocket Gopher Soils

Legend

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| Soil Preference | |
|  More Preferred |  County Border |
|  Less Preferred |  City Limits |
| New Dwellings |  Urban Growth Areas |
|  2015 and Later |  Tribal Reservations |



DISCLAIMER: This map is for general planning purposes only. Thurston Regional Planning Council makes no representations as to the accuracy or fitness of the

