

APPENDIX B: METHODOLOGY

The methodology used to determine reasonably foreseeable residential development for Island County shorelines is described here.

A GIS analysis was conducted as part of the cumulative impact analysis report to document the foreseeable development that may occur along shorelines in the county, specifically identifying vacant properties and subdividable properties.

As part of the Inventory and Characterization report (ESA Adolphson, 2012), vacant parcels were identified within shoreline jurisdiction based on the Island County Assessor records (2010). Aggregated land use categories were used based upon their respective Property Code-State (PCS). While the term “vacant” may not always accurately reflect current conditions (such as parking or outdoor storage areas), the classification generally indicates that no structural improvements have been made or assessed for taxes on the property. For this analysis, this same group of vacant parcels was used, except that the portion of the vacant parcels within shoreline jurisdiction that were 100 percent encumbered by mapped wetlands (Island County, 2006) or steep slopes (WDNR, 2010) were not considered developable. These parcels typically have developable area outside of the critical areas and the shoreline jurisdiction, thus no development was anticipated within the shoreline. This removed 487 parcels, which corresponds to a total of 474 acres (see Table A-1 below).

Properties encumbered by mapped wetlands were removed because alterations of wetlands would require a shoreline variance. Developments allowed through shoreline variances have not been quantified in this analysis due to the site-specific nature of the variance approval process. Development on steep slopes would require approval by a geotechnical engineer and is generally cost prohibitive where an alternative site is available. The remaining number of vacant parcels is 588 which correspond to a total of 255 vacant acres with the potential to develop within Island County’s shoreline jurisdiction.

Table A-1. Vacant Lands Encumbered by Wetlands and Steep Slopes

Property Classification	Parcels		Acres	
	Number of Parcels ¹	% of Total Vacant Parcels	Number of Acres	% of Total Vacant Acres
Vacant	1,068	100%	729 ac	100%
Vacant encumbered by wetlands or steep slopes	487	46%	474 ac	65%
Vacant with potential to develop	588 ²	55%	255 ac	35%

¹There is a small discrepancy in the total number of vacant parcel records between the Inventory and Characterization report and this analysis. When the tabular parcel data were spatially joined based on the parcel ID, there were some parcels that had

more than one parcel for a given parcel ID. That caused the number of vacant parcel records to increase from 1,060 to 1,068 records.

²A few vacant lots are double-counted in GIS due to the intersection of multiple data sets (SEDs, Geographic Areas, and Parcel Records) resulting in an increase of seven lots from the actual total number of vacant parcels (581).

The Inventory and Characterization report also identified properties that had the potential to subdivide. The potential for new lots was estimated by examining existing and required minimum lot sizes in each zone, and assuming subdivision was possible up to the zoning limit on density. Subdivision potential could occur on either vacant or developed lots located within the following Island County zones: Rural, Rural Residential, Rural Agriculture, Commercial Agriculture, Rural Forest, Rural Center, and Rural Village.

Similar to the vacant parcel analysis, the portion of the parcels deemed subdividable within shoreline jurisdiction that were 100 percent encumbered by mapped wetlands or steep slopes was removed. This resulted in the removal of 327 parcels which corresponds to a total of 2,519 acres (Table A-2). Properties encumbered by mapped wetlands were removed because Island County Code 17.02A prevents new lots from being created that are wholly comprised of wetlands or that would require alteration of a regulated wetland or its buffer to provide buildable area unless a conservation easement encompassing the lot is established and recorded. Portions of parcels within shoreline jurisdiction that were encumbered by steep slopes were removed because developing in a steep slope would be cost prohibitive and unlikely to receive approval by a geotechnical engineer that they could be developed without need of future shoreline stabilization to protect structures.

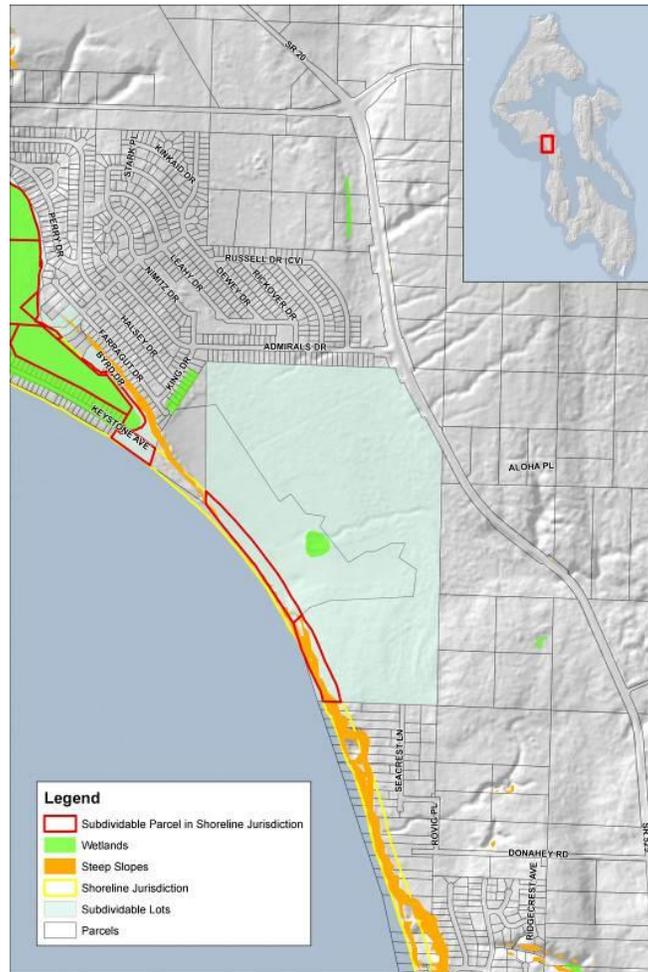
The remaining number of parcels with the potential to subdivide is 188, which corresponds to a total of 473 acres with the potential to be subdivided within Island County's shoreline jurisdiction. These 188 lots have the potential to be subdivided into 1,194 lots. Each of the future lots was assumed to have the potential to develop with one new single-family residence. Future potential lots reflect the number of future lots that have some portion of the parent parcel within shoreline jurisdiction. The example in Figure A-1 shows two subdividable parcels (in light blue) that extend beyond shoreline jurisdiction (in yellow outline). Although the highlighted parcels have the potential to subdivide into 30 new lots, only a small portion of those lots would likely be located within shoreline jurisdiction. Nonetheless, it could be expected that development might cluster nearest the shoreline to take advantage of views, so for this analysis we have indicated the total number of parcels that could result from subdivision.

Table A-2. Subdividable Lands Encumbered by Wetlands and Steep Slopes

Property Classification	Parcels		Acres	
	Number of Parcels	% of Total Subdividable Parcels	Number of Acres	% of Total Subdividable Acres
Subdividable	525 ¹	100%	3,045	100%
Subdividable property encumbered by wetlands or steep slopes	327	62%	2,519	83%
Subdividable with potential to develop	188	38%	473	17%

¹There is a small discrepancy in the total number of subdividable parcel records between the Inventory and Characterization report and this analysis. When we spatially joined the tabular parcel info based on the parcel ID, there were some parcels that had more than one parcel for a given parcel ID. That caused the number of subdividable parcel records to increase from 524 to 525 records.

Figure A-1. Example of Subdivision Potential Extending Beyond Shoreline Jurisdiction



The quantitative data described in the cumulative impact analysis report excludes the parcels or portions of parcels located below OHWM since potential residential development has been assessed only for upland areas of the shorelands.