

## Attachment I. GIS Analysis to Update Shoreline Jurisdiction Map

The following geographic data sources were used in developing the draft updated shoreline jurisdiction map.

1. Wtrcrs – King County streams data
2. Wtrbdy – King County water bodies data
3. SAO\_Wetland – King County wetlands data
4. NWI – National Wetlands Inventory data
5. Fldplain – King County 100-year floodplain data
6. Shorelinemmp - King County existing shoreline master plan data
7. City - King County incorporated data
8. Ugblne – Urban Growth Boundary line
9. Forpddist – Forest Production District line
10. Intrmpaa – Potential Annexation Areas
11. Tribal\_lands – Property owned by a tribal government
12. Maj\_strm – Major streams in King County
13. shorelinemmp\_sss – Shorelines of Statewide Significance
14. Kcsn - King County Street Network

The following geographic information systems analysis was applied to identify shorelines to include within the jurisdiction.

1. Lakes from list and shorelinemmp were selected from wtrbdy. Selected lake polygons were buffered 200 feet. Attribute was added for “Lake” or “Buffer” as appropriate.
2. Rivers and streams depicted as double-line stream polygons were selected from wtrbdy based on 20 cfs points
3. Rivers and streams not shown in wtrbdy were selected from wtrcrs based on 20 cfs points (see discussion of 20 cfs points associated with streams and rivers below). Selected lines were buffered 12.5 feet to show streams as 25 foot wide stream polygon. Twenty-five foot width was determined as average width at 20 cfs point based on field checks by Kollin Higgins.
4. Stream polygons from #2 and #3 above were combined into a single data layer and buffered 200 feet. Attribute was added for “Stream” or “Buffer” as appropriate.
5. Marine shorelines for mainland King County and Vashon Maury Islands selected from wtrbdy. Selected lines buffered 200 feet inland from shoreline. Attribute was added for “Marine.”
6. Buffered polygons from Lakes, Rivers and Streams, and Marine shoreline were combined into a single data layer, titled SMP\_All.
7. “Current Jurisdiction” was determined based on shorelinemmp. Attribute was added to SMP\_All for “Current” or “New” jurisdiction as appropriate.

Associated wetlands and floodplains were identified using the following geographic information systems analysis.

1. SAO\_wetland and NWI were combined into a single wetlands data layer.
2. Wetlands contiguous to SMP\_All were selected.
3. Floodplains contiguous to SMP\_All were selected.
4. Mud Mountain Reservoir changed from water body to flood plain status (see Attachment B).

5. Wetlands not contiguous to SMP\_All, but intersecting contiguous floodplains were selected.
6. Associated wetlands and floodplains above 20 cfs stream points were removed.

The draft updated King County shoreline jurisdiction area was finally identified using the steps below.

1. SMP\_All, associated wetlands, and associated floodplains were combined into single data layer, SMP\_Final.
2. Shorelines in incorporated areas were separated from the King County unincorporated shoreline jurisdiction. Add appropriate attribute.
3. Shorelines of Statewide Significance, as identified in current King County Shoreline Master Program, were added.