

3 SHORELINE JURISDICTION ANALYSIS

3.1 Shoreline Management Act Shoreline Criteria

The shoreline jurisdiction is the geographic area where the SMA applies and includes all Shorelines of the State and shorelands as defined by the SMA (RCW 90.58.030). See Table 2 for a summary of definitions for areas that are included within a shoreline jurisdiction.

Table 2
Shoreline Criteria Definitions per RCW 90.58.030 and WAC 173-26-020

Term	Definition
Shoreline Jurisdiction (WAC)	All "shorelines of the state" and "shorelands" as defined in RCW 90.58.030.
Shorelands (RCW)	<ul style="list-style-type: none"> • Those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark (OHWM) • Floodways and contiguous floodplain areas landward two hundred feet from such floodways; and • All wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter; the same to be designated as to location by the Ecology.
Shorelines of the State (RCW)	The total of all "shorelines" and "shorelines of statewide significance" within the state.
Shorelines (RCW)	All of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them; except: <ul style="list-style-type: none"> (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.
Shorelines of Statewide Significance ¹ (RCW)	The natural rivers or segments thereof as follows: <ul style="list-style-type: none"> (A) Downstream of a point where the annual flow is measured at two hundred cubic feet per second or more, or (B) Downstream from the first three hundred square miles of drainage area, whichever is longer.

Notes:

1 = The definition provided is for streams and rivers of statewide significance east of the crest of the Cascade Range. See Revised Code of Washington (RCW; 90.58.030(2)(f) for full description of specific larger waterbodies under the classification of shorelines of statewide significance.

OHWM = ordinary high water mark

RCW = Revised Code of Washington

WAC = Washington Administrative Code

3.2 Study Area

The City of Pasco is located at the confluence of the Columbia and Snake rivers in southeastern Washington within Franklin County. The Columbia River is to the south of the City, and the Snake River is to the east. The study area for this report includes all land currently within the shoreline jurisdiction for incorporated City and the City's unincorporated Urban Growth Area (UGA). The study area includes relevant discussion of the contributing watersheds.

3.3 Shorelines Currently Designated in the City of Pasco

The WAC, Title 173 – Chapter 18 – Section 150, and Chapter 20 – Sections 240 and 250 list lakes and streams of Statewide Significance and Shorelines of the State and Shorelines of Statewide Significance designated by statute in Franklin County (including shorelines within the City). Where there is a conflict with the criteria set forth in RCW 90.58.030(2) and WAC 173-18-040, the RCW criteria shall control. The designation of the stream or river shall be governed by the criteria, except that the local government must amend the local SMP to reflect the new designation (WAC 173-18-046).

Four Streams of Statewide Significance are currently designated for Franklin County per WAC 173-18-150, three of which are located within the City, based on their historical application of designation criteria. The streams designated in Franklin County that are historically included within the City jurisdiction are summarized below in Table 3.

There are no lakes specifically listed in WAC 173-20-240 or 250 as meeting the lake criteria within City jurisdiction.

Table 3
Streams of Statewide Significance per WAC 173-18-150 for Franklin County and within City of Pasco Jurisdiction¹

Stream Name	Legal Description	Estimated Length (miles)
Columbia River	From Hanford Works boundary (Sec.23, T12N, R28E) downstream left bank only to (Sec.13, T9N, R28E) questionable. The flow exceeds 200 cfs MAF at Hanford Works boundary.	14.4
Esquatzel Coulee	From mouth of Old Maid Coulee (Sec.11, T12N, R30E) downstream to a sump (Sec.12, T9N, R29E) (Esquatzel River gradually sinking into ground). This stream has over 300 square miles of drainage area ending at mouth of Old Maid Coulee.	1.2
Snake River	All of Snake River within Franklin County is under federal jurisdiction. The flow exceeds 200 cfs MAF at Whitman County line.	2.8

Notes:

1 = The Palouse River is also listed in WAC 173-18-150 but is not located within City jurisdiction.

cfs = cubic feet per second

MAF = million acre-feet

WAC = Washington Administrative Code

3.4 Preliminary Shoreline Jurisdiction Analysis and Findings for the Shoreline Master Program Update

3.4.1 Shoreline Jurisdiction Data Analysis

Anchor QEA reviewed information in the WAC and compared it to a number of data sources to determine, as accurately as possible with the available data, which waterbodies in the City fit the definition of Shorelines of the State. Anchor QEA received and downloaded GIS-format datasets from the City, Franklin County Planning, the Franklin County GIS website, U.S. Geological Survey (USGS), U.S. Department of Agriculture (USDA), U.S. Fish and Wildlife Service (USFWS), and Ecology containing information from a variety of sources about the waterbodies and potential shorelands within the City.

Anchor QEA has reviewed and appended a Shoreline Management Plan, Lakes, and Rivers dataset developed to identify those waterbodies and associated lands within the City that meet the definition of Shoreline of the State or Shoreline of Statewide Significance per RCW

90.58.030. Anchor QEA used several data sources in determining if a waterbody met this definition. Those most used include:

- Designated streams named in WAC 173-18-150
- Designated lakes named in WAC 173-20-240 and WAC 173-20-250
- Ecology suggested shoreline arcs (stream) and points (at which streams reach the threshold of significance)
- Ecology-suggested shoreline polygons (for lakes)
- USGS National Hydrography Dataset
- USDA National Agriculture Imagery Program 2013 imagery (USDA 2013)
- Google Earth historical aerial imagery
- USFWS National Wetland Inventory
- Federal Emergency Management Agency (FEMA) flood insurance rate maps

3.4.2 Identification of Shorelines for the Shoreline Master Program Update

Anchor QEA reviewed the existing datasets and classified the accuracy of the Shoreline Management Plan, Lakes, and Rivers data to represent the ordinary high water mark (OHWM) of the shoreline. The USGS's National Hydrography Dataset Area, Flowline, and Waterbody datasets, as well as Ecology's suggested shoreline polygon and line datasets, were used as baseline for comparison. There were significant variations in the accuracy related to differences in the sources of data. In many cases, recent and historical aerial imageries were used to determine which of the available datasets provided the most accurate representation of the actual shoreline locations.

Anchor QEA determined the upstream extent for the Columbia and Snake rivers, based on geographic boundaries of the City and its UGA, from WAC listings for Franklin County for these waterbodies. Using these upstream extents, datasets were compared to recent imagery to determine the accuracy of various datasets in representing the stream OHWM, as well as the extent of associated features such as riparian wetlands.

In a separate Shoreline Jurisdiction Analysis completed for Franklin County (Anchor QEA 2014), it was recommended that Esquatzel Coulee be removed from the shoreline jurisdiction due to physical factors and the authorized uses for the water for

irrigation. Additionally, within the SMA, there are criteria to provide for reasonable access to water and water-related uses. In Esquatzel Coulee, downstream of the Esquatzel Diversion Channel, there are few to no water-related uses; data suggest little water exists within the creek.

The current City SMP includes two Shorelines of Statewide Significance; Anchor QEA's analysis does not change this result, as shown in Table 4.

Table 4
Streams of Statewide Significance to be Included in the SMP Update

Stream/Lake Name	Included in Current City of Pasco SMP	Total Length/Area Proposed Shoreline
Columbia River	Yes	14.4 miles
Snake River	Yes	2.8 miles

3.4.3 Preliminary Shoreline Jurisdiction Areas

As discussed in Section 3.1, the shoreline jurisdiction is the geographic area where the SMA applies and includes all Shorelines of the State and shorelands as defined by the SMA (RCW 90.58.030). Shorelines of the State to be included in the SMP update are summarized in Section 3.4.2. This section describes how the extent of the shoreline jurisdiction, including the shorelands, was determined.

The extent of the preliminary shoreline jurisdiction was determined (mapped) using the following steps:

- All shorelines meeting the definitions described in Table 2 and identified above were buffered by 200 feet.
- All wetlands from the USFWS National Wetland Inventory dataset that intersected any part of the 200-foot buffer were provisionally included.
- Those wetlands identified were reviewed for spatial accuracy to determine if any part of them intersected the 200-foot buffer. If so, they were included.
- Any additional wetlands in the floodway of streams, meeting the shoreline definition above, were provisionally included.

3.5 Reach Breaks

Reaches are specific segments of the shoreline that are typically distinguished by the relative intensity of land use development patterns, the physical landscape, or critical biological processes. Reaches are numbered sequentially (i.e., 1, 2, 3, etc.) with subreaches listed alphanumerically (i.e., a, b, c, etc.). Reaches and subreaches provide the basis for the in-depth analysis and characterization information in this report. Physical changes often translate into differences in the function of the shoreline with regards to ecological and physical processes, which in turn may influence the shoreline designation.

The reach delineation was performed by evaluating aerial photography, topographic data, geologic maps, land cover data, and existing and future land use, which was considered in concert with the rivershore segments identified in the City's Rivershore Linkage and Amenity Plan (Pasco 2012). The Rivershore Linkage and Amenity Plan (attached as Appendix C) provides guidance for a coordinated long-term development plan along the City's waterfront. In many cases, reaches were further divided into subreaches in the analysis and characterization to identify different patterns in land use, ownership, zoning, level of development, and future development plans.

A list of the IAC reaches and subreaches for the shoreline jurisdiction areas within the City and the associated rivershore segments as delineated in the Rivershore Linkage and Amenity Plan are provided in Table 5.

Table 5
IAC Reach and Subreaches and Associated Rivershore Segments

Shoreline	Reach (Subreaches)	Rivershore Segment ¹
Columbia River	1a	Kohler
	1b	Dream View
	1c	Pasco Ranch
	1d	Horrigan Farms
	1e	Rivershore Estates
	2	Columbia View
	3a	Chiawana Park
	3b	Sunset Acres
	4a	Levee #2
	4b	Wade Park
	5a	Moore Mansion
	5b	Flamingo Village
	5c	Riverview Park
	5d	West Cable Bridge
Snake River ²	6a	Marine Terminal
	6b	Boat Basin
	6c	Port of Pasco
	7	Sacajawea Park
	8a	Ainsworth Town
	8b	Tidewater Terminal

Notes:

1 = Rivershore segments are mapped in the City's 2012 Rivershore Linkage and Amenity Plan.

2 = Reach 8 is along the Snake River just upstream of the confluence of the Columbia and Snake rivers.