

Puyallup River Basin

The basin extends from the foothills north and west of Mount Rainier to Puget Sound. The mountainous eastern portion is cut by numerous river valleys while the western portion is more level or gently rolling. The Puyallup River and its major tributaries, the White and Carbon Rivers, originate as glacially fed streams in the Mount Rainier foothills. Forests extend over about 85 percent of the basin. Croplands are clustered along the alluvial lowlands of the river valleys and the western areas near Puget Sound. The climate is cool in the summer with mild winters. Annual precipitation ranges from 40 inches in and about the Sound to more than 120 inches in the mountains.

American Lake, Tacoma

Completed Section 205 Flood Control Project (Seattle District) An outlet for American Lake was provided to eliminate flooding along the perimeter of the lake. An energy dissipator, an inlet weir, and an open channel conduit direct high water through Sequallitchew Lake and Creek to Puget Sound. The project was completed in January 1975 at a total cost of \$69,582, including \$59,582 from federal funds and \$10,000 from contributed funds. Pierce County is responsible for maintenance.

Puyallup River, Tacoma

Completed Flood Control Project (Seattle District) A channel improvement project, completed in 1950, was planned to complement protection provided by Mud Mountain Dam. The project consisted of channel straightening and levees and revetments on a 2.2-mile reach of the Puyallup River in and near Tacoma. The channel helps provide flood protection for the city's industrial area. A project master plan was completed in 1983. Federal cost through September 1998 was \$3,947,853 for new work, including \$5,035 for recreation facilities; and \$1,126,257 plus contributed funds of \$31,816 for maintenance. Project benefits from the project are included in the figure given for Mud Mountain Dam. Flood damages prevented through September 1998 totalled \$64,930,000.

Puyallup River and Tributaries

Completed Flood Control Study, (Seattle District) The Puyallup River drains 972 square miles lying mostly within Pierce County. Mud Mountain Dam, along with levees and channel improvements, provides major flood protection along the White River and along the Puyallup River downstream from Sumner. Small streams discharging into the Puyallup downstream of Sumner cause annual flooding because of inadequate drainage. Towns and farms in the flood plain suffer damage frequently. Bank erosion, sedimentation, and riverborne debris also present problems. Begun in 1970, preliminary studies for the Puyallup River Basin were completed in 1974 and determined that further consideration should be given to levees at Orting, to structural

and nonstructural measures along the White-Stuck River, to interior drainage problems near Puyallup, and to nonstructural measures elsewhere in the basin. Unfunded from 1975 to 1977, basin studies were resumed in 1978. A report covering the Orting area, completed in 1981, concluded that no further studies should be conducted at that time because the economically justified alternative of levees at Orting was not acceptable to the local sponsors, and the alternative which they supported - channel excavation and catchment basins was not economically justified. Study funding was provided in 1984 to 1987 to permit the Corps to participate in federal-state interagency study of flooding, gravel movement, fishery impacts and possible damage reduction measures along the White-Stuck, Puyallup, and Carbon Rivers. The Corps is continuing to coordinate with Pierce County in their development of a comprehensive flood control plan.

Tacoma Harbor

Completed Navigation Project (Seattle District) The city of Tacoma is located on Commencement Bay, an arm of Puget Sound. It is the third largest city in Washington and lies 30 miles south of Seattle, the largest city. Most of the state's population is concentrated in or between the two cities. The Puyallup River empties into Tacoma Harbor forming a broad delta which has been partially reclaimed. With eight waterways, Tacoma is one of the principal harbors on the Sound. The Corps has joined in development of harbor facilities. The 500-foot-wide and 19- to 29-foot-deep City Waterway (recently renamed Foss Waterway by the city of Tacoma) was completed in 1905. The Hylebos Waterway is 3.1 miles long, has two turning basins, and a 30-foot deep channel and was completed in 1931. The lower turning basin was completed in 1939 and the upper basin in 1965. In 1966, the Corps widened a bend at Lincoln Avenue. The Blair Waterway was completed in 1965, extending deep water on Commencement Bay to the vicinity of the East 11th Street Bridge. It is 600 to 650 feet wide and 30 to 35 feet deep and was extended 0.75 miles beyond Lincoln Avenue in December 1966. At the Puyallup Waterway entrance, two rubble-mound training walls, each about 700 feet long, were built in 1934. The east wall was destroyed by a slide in April 1943 and was replaced by a 550-foot untreated contact-pile structure in July 1954. It was reconstructed in 1956 and extended to 650 feet in 1967. The left or west training wall is 600 feet long. Through September 1998, federal costs of the project were \$2,435,500. Operations and maintenance costs total \$1,537,150. Commerce in 1997 totaled 20,683,000 tons.

Tacoma Harbor, Blair Waterway Channel Deepening

Navigation Study (Seattle District) In fiscal year 1997, the Corps began a study to determine the feasibility of deepening the Blair Waterway to accommodate state-of-the-art containerships as directed by House Committee on Transportation and Infrastructure Resolution dated May 9, 1996. In accordance with direction from Corps headquarters, a 905(b) Preliminary Analysis (PA) and Feasibility Cost Sharing Agreement were prepared. The PA determined that

there was a federal interest in continuing with more detailed planning studies and recommended that the district be authorized to initiate the feasibility phase. Corps headquarters certified the Project Study Plan on Aug. 19, 1997. The Port of Tacoma and Seattle District signed the FCSA on Aug. 21, and the district initiated the feasibility phase on Aug. 25. The feasibility phase was completed on April 9, 1999. The feasibility report recommends a project to deepen the Blair Waterway, and construction is scheduled to begin in the fourth quarter of 1999.

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