

LEEVE SYSTEM FORM 1

Levee System Name: Peninsula No. 2

Drainage District Name: Peninsula DD No. 2

USACE District: NWP

NLD Status: Federally Constructed, Locally Operated, Active

River: Columbia

River Mile: 106.5 to 108.2

Type of Structure: Earthen Levee, flood walls and Closure Structures

Design Flood Elevation (NAVD88 in feet): 35.9

Protection Area (acres): 1470

System Length (miles): 6.77

Last Inspection (date): 2010

Overall Rating: MA (rating not yet finalized)

Organization's Capability: A

Summary: The Peninsula Drainage District No. 2 is located along the left bank of the Columbia River, approximately 5 miles northeast of the city center of Portland. The system was organized in 1917 and the original levee on the Columbia Slough was completed in 1921. Since 1939 the Corps of Engineers has participated in several levee improvements and emergency repair projects to maintain and upgrade the district's flood protection system. The Peninsula drainage canal, which separates Peninsula DD No. 2 from Multnomah Co. DD No. 1, is plugged at both ends, at its junction with Columbia Slough, and on the Columbia River. The system is 6.77 miles long and includes two pump stations.

Past Performance: 1948 Flood History – June 1948 – with Flood Fighting

LOCATION Stations	DESCRIPTION
May 29 to 31 1948 Inspection of Pen2	During the flood event Pen2 was inspected by Corps personnel and Pen2 officials. There is little detail on where seepage or other problems were found and other conditions which included freeboard measurements.
Denver Avenue Ring Levee (cross levee) and Union Avenue Cross	Night patrols were also made on the Columbia River segment, Columbia Slough and the cross levees after the Vanport flood of May 30 th which then impacted the Denver Avenue Ring Levee and the then Union Avenue cross levee so the District was flooded. Water level at the time

Levee Failed on May 31st	<p>of the Vanport railroad embankment break was about 36.3 ft NAVD88 as the flood had not crested. There was sandbagging on the Columbia River levee during the night of May 31st east of 33rd Avenue.</p> <p>Station 0+00 to 5+10 – seepage developed.</p>
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1956, 1964, and 1996 Flood History with flood fighting

LOCATION Stations	DESCRIPTION
Columbia Slough	<p>1956 (32.9 feet NAVD88) 1 boil area of concern at Schmeer Road and Denver Avenue Between stations 134 to 154 moderate to serious seepage occurred. Between Vancouver Avenue and Denver Avenue (stations 214+46 to 226+00) – serious seepage with boils and sink holes developing near the levee toe and boils occurring a distance landward of the toe. Between stations 280+75 to 287+75 seepage and boils occurred, Denver Ave.</p>
Oregon Slough	<p>1956 (32.9 feet NAVD88)– areas of concern: seepage in the developed area near the intersection of Denver Avenue and Oregon Slough stations 0+00 to 5+10; along the levee toe between stations 5+10 and 24+60 had serious seepage; between 24+60 to 69+50 some seepage; between stations 69+50 and 80+25 serious seepage; and boils in the drainage slough south of the levee 200 to 400 feet from the interior toe between stations 20+00 and 60+00 that were difficult to detect.</p>
	<p>1959 Actions/Upgrades Relief wells installed at Denver Ave and Schmeer Road and new pump house constructed. Several sections of levee repaired and reinforced, and Peninsula Drainage Canal plugged off from the Columbia River.</p>
1964 Flood	<p>No records available for levee performance (33 feet NAVD88)</p>
<p>1996 Flood Columbia Slough Locations: PD2 212+00 (100 ft) PD2 246+00 (100 ft) Other: Between Stations 39+00 and 55+60</p>	<p>During the 1996 flood event (32.7 feet NAVD88) two reaches of about 100 feet on the landward slope and toe experienced toe and embankment erosion damage. Final repairs were completed by COE in early 1997.</p> <p>Drainage District identified several surface fractures on the riverward slope. Several large boils on landward side also identified, no locations given.</p>
	<p>1998 – Bank protection added from station 229+00 to 278+50.</p>

	2007 Peninsula Drainage Canal segment replaced with Multnomah DD Peninsula Drainage Canal segment.
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