CHAPTER 5
EXISTING UTILITY CROSSINGS

1.1 INTRODUCTION.

1.11 General. A study of the existing utilities crossing the Columbia River (RM 0 to RM 105.5) and the Willamette River (RM 0 to RM 11) was undertaken to determine impacts from lowering the Columbia River Channel from the existing 40-foot depth to a 43-foot depth (48-foot depth overexcavation along the lower Columbia River and 45-foot depth overexcavation along the Willamette River).

1.12 Available Information. Available information to determine CRCD impacts to existing utility crossings included review of available regulatory permits; review of cable and pipeline crossings included in the Columbia River Maintenance Disposal Plan, September, 1991; and phone interviews with utility owners.

1.2 COLUMBIA RIVER UTILITY CROSSING'S (RM 0 TO RM 105.5).

1.21 General. Areas between the following river miles will require dredging to reach a channel depth of 43-feet:

(1) RM 6 - 49
(2) RM 50.5 - 52.5
(3) RM 56 - 101
(4) RM 102.5 - 105.5

1.22 Existing Utility Crossings. Existing utility crossings for the Columbia River are included in Table 1. A summary of those utility crossings being impacted by lowering the channel are shown below:

(1) RM 6.5, US Coast Guard, Four conductor telephone cable between Pt Adams (OR) and Chinook Point (WA), Located @ 45 feet below mean low low water (MLLW).

(2) RM 13.7, Pacific Telephone & Telegraph (US West), Cable crossing between Astoria (OR) and Point Ellice (WA), Depth of cable unknown.

(3) RM 14.5, Pacific Telephone & Telegraph (US West), Cable crossing between Astoria (OR) and Knappton (WA), Depth of cable unknown.

(4) RM 105.5, Spokane, Portland & Seattle Railroad (Burlington Northern), Communication cable crossing under railroad bridge between Hayden Island (OR) and Vancouver (WA), Depth of cable @ 40 feet below the low water line.

(5) RM 105.5, Northwest Natural Gas Company, Six-inch diameter pipeline located under railroad bridge between Hayden Island (OR) and Vancouver (WA), Depth of cable @ 44 feet below the low water line.

1.3 WILLAMETTE RIVER UTILITY CROSSING'S (RM 0 TO RM 11).

1.31 General. The area between RM 0 and RM 11.5 (Broadway Bridge) will require dredging to reach a channel depth of 43-feet:

1.32 Existing Utility Crossings. Existing utility crossings for the Willamette River are included in Table 2. A summary of those utility crossings being impacted by lowering the channel are shown below:

(1) RM 3.5, Portland General Electric, Power cable crossing to Rivergate Industrial Park, Depth unknown.

(2) RM 5.8, Pacific Telephone & Telegraph (US West), Communications cable crossing near the St. John's Bridge, Depth @ 43 feet below low water.

(3) RM 5.9, Portland General Electric, Power cable crossing near the St. John's Bridge, Depth unknown.

(4) RM 7, Spokane, Portland & Seattle Railroad (Burlington Northern), Located under railroad bridge, Four armored communication cables from south side of river and three cables from the north side of river, Depth @ 42 feet below low water.

(5) RM 11.25, Pacific NW Bell, Three communication cables, Depth @ 42 feet below low water.

(6) RM 11.25, Pacific Power and Light (PP&L), Cable crossing, Depth @ 37 feet below low water.

(7) RM 11.25, Pacific Power and Light (PP&L), Six 15KV transmission cables and one communication cable, Depth @ 42 feet below low water.

(8) RM 11.6, Portland General Electric, Power cable crossing under the Broadway Bridge, Depth unknown.

(9) RM 11.6, Pacific Telephone & Telegraph (US West), Six communication cables under the Broadway Bridge, Depth @ 43 feet below low water.

(10) RM 11.6, Pacific Power and Light (PP&L), Three 12KV cables under the Broadway Bridge, Depth @ 42 feet below low water.

1.4 SUMMARY. The submarine cables and pipelines were constructed under Department of the Army permits. The owners of the utilities that would be affected by the proposed channel deepening project are obligated to relocate them at their own expense in accordance with the terms of the permits for their construction.

Table 1--Columbia River Utility Crossings

No.	Location	Utility Name	Description	Impacts from CRCD
1	**RM 6.5**	US Coast Guard	Communications cable between Pt Adams (OR) & Chinook Pt (WA) @ 45 ft below MLLW Four - conductor telephone cable	**Possible Impacts** Permit #1507-24-5, 29 Nov 44 POC Seattle, WA (206) 624-2902, ext. 253
2	RM 8	US Coast Guard	Communications cable	No Impacts (no dredging conducted @ RM 8)
3	RM 9	US Dept of Commerce	Cable crossing @ 46 ft below MLLW (power to Desdomona Sands LS) Two conductors in armored submarine cable for 2400 volt circuit & three conductors for 110 volt circuit. Located @ 46 ft below MLLW	**Possible Impacts** CLW 124/24.1
4	**RM 13.7**	Pacific Telephone & Telegraph	Cable crossing between Astoria and point unknown	**Unknown**
5	**RM 14.5**	Pacific Telephone & Telegraph	Cable crossing between Astoria and Knappton (WA) Depth unknow	**Unknown** Permit # 1507-24-13, 22 Sep 50
6	RM 40.5	Pacific Telephone & Telegraph	Cable crossing @ 51 ft below MLLW	No Impacts
7	RM 53.5	PGE	Pipeline @ minimum 55 ft below CRD.	No Impacts

Table 1--Columbia River Utility Crossings

No.	Location	Utility Name	Description	Impacts from CRCD
8	RM 72.5 to RM 73	Unknown	Cable crossing which fronts Trojan power plant (unknown)	No Impacts (no dredging conducted between RM 72.5 and RM73)
9	RM 76.75	AT&T	Fiber optic crossing @ 62 ft below CRD	No Impacts
10	RM 76.75	NW Pipeline Corp	Pipeline crossing @ 70 ft below CRD	No Impacts
11	RM 100.4	Olympic Pipeline	Pipeline crossing @ 60 ft below CRD	No Impacts
12	RM 100.5	NW Pipeline Corp	Two 16-in natural gas pipelines. Depth of pipes @ 60 - 65 ft below LW. Project located between Sauvie Island and point near Vancouver Lake	No Impacts Permit # 1507-24-10, 28 Nov 55
13	**RM 105.5**	Spokane, Portland & Seattle Railroad	Communication cable crossing under railroad bridge. Depth @ 40 ft below LW.	**Possible Impacts** Permit # 1507-24-6, 23 Jul 45
13	**RM 105.5**	NW Natural Gas	Six-inch diameter pipeline located under bridge between Hayden Island and Washington shore. Depth @ 44 ft below LW.	**Possible Impacts** Permit # 1507-24-9, Jul 54

Table 2--Willamette River Utility Crossings

No.	Location	Utility Name	Description	Impacts from CRCD
1	RM 2.6	NW Natural Gas Co	16-inch diameter pipeline crossing @ 80 ft below normal water surface	No Impacts
2	**RM 3.5**	PGE	Power cable crossing Depth unknown	**Unknown**
3	RM 5.8	City of Portland	36-inch diameter water line @ 60 ft below LW	No Impacts
4	**RM 5.8**	Pacific Telephone & Telegraph	Communications cable crossing Located under St John's Bridge Depth @ to to 43 ft below LW	**Possible Impacts** Permit # 1507-24-29, 30 Nov 59 Permit # 1507-24-10, 21 Dec 48
5	**RM 5.9**	PGE	Power cable crossing Depth unknown	**Unknown**
6	RM 7	City of Portland	30-inch & 20-inch diameter sewer force main @ 50 ft from MLW	No Impacts
7	**RM 7**	Spokane, Portland & Seattle Railroad	Four armored communication cables from south side and three cables from north side. Cables @ 42 ft from MLW. Located under railroad bridge	**Possible Impacts** Permit # 1507-21-5, 31 Dec 70

Table 2--Willamette River Utility Crossings

No.	Location	Utility Name	Description	Impacts from CRCD
8	RM 7	NW Natural Gas Co	Gas pipeline @ 50 ft below LW	No Impacts
9	RM 7.6	Chevron Pipe	8-inch pipeline crossing @ 60 ft below LW	No Impacts Permit # 1522-15-22, 15 Jun 70
10	**RM 11.25**	Pacific NW Bell	Three communication cables @ 42 ft below LW	**Possible Impacts** Permit # 1507-24-37, 27 Aug 68
11	**RM 11.25**	PP&L	Cable crossing @ 37 ft below MLW	**Possible Impacts** Permit # 1507-24-13, 20 Aug 30
12	**RM 11.25**	PP&L	Six - 15 KV transmisssion cables & one communication cable @ 42 ft below LW	**Possible Impacts** Permit # 1507-24-35, 6 May 68
13	**RM 11.6**	PGE	Unknown. Located under Broadway Bridge	**Unknown**
14	**RM 11.6**	Pacific Telephone & Telegraph	Six communication cables. Located under Broadway Bridge @ 43 ft below LW	**Possible Impacts** Permit # 1507-24-16, 6 Oct 53
15	**RM 11.6**	PP&L	Three 12KV cables. Located under Broadway Bridge @ 42 ft below LW	**Possible Impacts** Permit # 1507-24-32, 12 Apr 66