

# DISPOSITION FORM

(AR 340-15)

OFFICE SYMBOL OR FILE REFERENCE

SUBJECT

NPSEN-PL-H

Avon Bypass Study - Skagit River Widening  
R.M. 15.8 to R.M. 18.0

TO Ch, Tech Engrg Sec

FROM Ch, Hydraulics Sec

DATE 7 June 66

CMT 1

Farrar/vd/479

1. Backwater studies on the Skagit River and preliminary hydraulic design for the Avon Bypass control structure have been completed. Reference is made to Work Requests dated 10 May 1966 and 24 May 1966, respectively.

2. Backwater computations were made for the Skagit River between R.M. 15.1 and R.M. 23.5 with the proposed widened river channel from R.M. 15.8 to R.M. 18.0. Prints of the computed water surface profile (hand-carried to V. Cook 6 June 1966) also show natural water surface profiles for comparison. The 180,000 c.f.s. profile in the widened river channel was lowered to approximately the 120,000 c.f.s. profile in the natural river channel. A reasonable allowance should be made for the periodic removal of sediment in the widened channel to insure that the hydraulic capacity is maintained.

3. Weir computations for the bypass control structure located at R.M. 15.8 indicate the weir length shown in the Reactivation Report is adequate. The net weir length is 288 feet with six 48-foot bays at crest elevation 19.4. Five 8-foot wide piers will give a gross length of 328 feet. Crest gates will be 48 feet wide by 16.5 feet high. The length of weir is relatively insensitive to minor changes by submergence. The standard control structure used at the three bypass entrances will permit minor design changes. These minor changes will not affect the design shown in the Reactivation Report.

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*File Skagit River (Avon Bypass)*  
*G.K.*