

Fraser River Model Project fonds

Compiled by Erwin Wodarczak (1998)

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Fonds Description

Fraser River Model Project fonds. – 1948-1963.

1.22 m of textual records.

Administrative History

The Fraser River Model Project, which ran from 1948 to 1961, was designed to help improve navigation on the Fraser River Estuary. The National Research Council of Canada funded the initial construction and operation of the model and the University of British Columbia provided land, office, and laboratory space, materials and engineering and administrative supervision. The University's support continued after the Federal Department of Public Works took over operational and financial control of the model in 1953. Located on a three-acre site on the western edge of the Point Grey campus, the project was a hydraulic, erodible-bed, tidal river model and one of the largest in the world and the only one of its kind in Canada. The model's horizontal scale was 1:600, the vertical scale 1:70. E.S. Pretious of the Department of Civil Engineering was director of the project.

Scope and Content

Fonds consists of reports and printed material arising from the Fraser River Model Project (1948-1963) acquired from Dr. Pretious and from the Applied Science Reading Room. The classification system was Dr. Pretious' own, and the original order in which they were received has been maintained.

Notes

Title based on the contents of the fonds.

Items included in the original accession which are included elsewhere in the Library's holdings were removed in a 1998 re-appraisal.

Finding aid available. See also Item 025, which is an index to all Fraser River Model publications.

File List

BOX 1

- 001 Final model tests of proposed channel improvements in the Fraser River at New Westminster / J.A.D. Marion. (National Research Council of Canada. Report No. MH-18). Ottawa, July 28, 1949.
- 002 Fraser River flood flow forecasting / J.F. Main. (University of B.C. Department of Civil Engineering. Water Resources Division Publication No. 4). July 1969.
- 003 Hydrometric and sediment survey, lower Fraser River: progress report, 1965-68 / Canada Department of Energy Mines & Resources. Inland Waters Branch. Sediment Survey Section. Ottawa, 1970.
- 004 Sedimentation of the Fraser River Delta / W.A. Johnston. (Canada. Geological Survey. Memoir 125; No. 107, Geological series). 1921.
- 005 The Sediment load of the lower Fraser River, B.C. / E.S. Pretious. Vancouver: University of B.C. Department of Civil Engineering, February 1969.
- 006 Downstream sedimentation effects of dams on Fraser River, B.C. / E.S. Pretious. University of B.C. Department of Civil Engineering. Water Resources Series No. 6. January 1972.
- 007 Hydrometeorological study of the Fraser River / M.C. Quick. University of B.C., November 1965.
- 008 Water quality in the Fraser-Thompson River system of British Columbia: a report prepared for the Dominion-Provincial Board, Fraser River Basin / B.C. Research Council. Vancouver, April 1952.
- 009 Fraser River System flood flow hydrographs, May and June 1953-67 / University of B.C. Civil Engineering Department. Water Resources Division.
- 010 Annual report / Dominion-Provincial Board, Fraser River Basin 1949. Large binder, contains numerous maps.
- 011 Preliminary report on flood control and hydro-electric power in the Fraser River Basin / Fraser River Board. Victoria, June 1958.

- 012 Interim report: investigations into measures for flood control in the Fraser River Basin / Fraser River Board. Victoria, June 1956 [includes Appendices a-c].
- 013 Second annual progress report, 1950 / Dominion-Provincial Board. Fraser River Basin. Victoria, April-1951.
- 013a Third annual progress report, 1951 / Dominion-Provincial Board. Fraser River Basin. Victoria, 1952.
- 013b Fourth annual progress report, 1952 / Dominion-Provincial Board. Fraser River Basin. Victoria, July 1953.
- 013c Fifth annual progress report, 1953 Dominion-Provincial Board. Fraser River Basin. Victoria, March 1954.
- 014 Computed and observed water levels, Fraser River at. Mission / A.L. McNaughton. (Dominion-Provincial Board. Fraser River Basin. Memorandum No. 2). October 10, 1951.
- 015 Interim report no. 1: flood storage requirements / A.L. McNaughton. (Dominion-Provincial Board. Fraser. River Basin). June 1, 1951.
- 016 Interim report no. 2: Harrison River watershed / A.L. McNaughton. (Dominion-Provincial Board. Fraser River Basin) . August 31, 1951.
- 017 Interim report no. 3: flood control in Fraser River Basin / A.L. McNaughton. (Dominion-Provincial Board. Fraser River Basin). December 31, 1952.
- BOX 2
- 018 Fraser River investigation: topographical maps / Canada Geological Survey. (To accompany Memoirs 125 and 135). Ottawa, 1923.
- 019 Water powers, Fraser River, British Columbia, Canada. Department of Lands, 1938. Pamphlet.
- 020 Brief summary of principal features of model / E.S. Pretious. (Fraser River Model). Vancouver, November 1959.

- 021 Preliminary design consideration for a complete model of the Fraser River delta / E.S. Turner. (National Research Council of Canada. Report No. MH-12). Ottawa, March 8, 1948.
- 022 Quarterly bulletin / National Research Council of Canada. April-June 1951. [feature article: "Fraser River Model Hydraulics Laboratory," by E.S. Turner, p. 1-6].
- 023 The B.C. Professional Engineer. November 1961. v. 12(11). Article, "The Fraser River Model and Prototype," by E.S. Pretious, p. 13-183.
- 024 The Dispatch / La Depeche. Summer 71. "The Trifurcation project," p. 10-111.
- 025 Publications, Fraser River Model. [index to all publications produced from the project].
- 026 Further exploratory tests on the effects of the closure of the Annacis Channel / E.D. Thorne. (Fraser River Model. Report FRM-201). May 15, 1953.
- 027 Further tests on channel improvements through Steveston Cut / E.D. Thorne, I.D. Smith. (Fraser River Model. Report FRM-202). May 27, 1953.
- 028 Friction in hydraulic models involving non-uniform unsteady flow in open channels / E.S. Pretious. (Fraser River Model. Report FRM-204). August 19, 1953.
- 029 Further studies of Ladner Bifurcation Area / E.S. Pretious, E.D. Thorne. (Fraser River Model. Report FRM-206). October 27, 1953.
- 030 Further studies of the New Westminster trifurcation area / E.S. Pretious, E.D. Thorne (Fraser River Model. Report FRM-207). November 30, 1953.
- 031 The Current-drag velocity meter / E.S. Pretious. (Fraser River Model. Report FRM-208). June 22, 1954.
- 032 Model tests of local scour in the vicinity of the partial closure of Annacis Channel / E.S. Pretious, E.D. Thorne. (Fraser River Model. Report FRM-209). July 29, 1954.

- 033 Further model studies of the effect on water levels at New Westminster resulting from a structure in Annacis Channel / E.S. Pretious, E.D. Thorne. (Fraser River Model. FRM-210). August 6, 1954 [c. 1-2].
- 034 Further studies of Ladner bifurcation area / I.D. Smith, E.D. Thorne. (Fraser River Model. Report FRM-213). December 17, 1954.
- 035 The Design of a pendulum-type velocity meter / Ian D. Smith. (Fraser River Model. Report FRM-217). June 30, 1955 [c.1-3]. FRM-217 Revised: dated December 6, 1960 [The revision is called 035 c.1, the others c.2-3].
- 036 Modified Price current meter for measuring unsteadyflow velocities in open channels / Ian D. Smith. (Fraser River Model. Report FRM-218). July 18, 1955.
- 037 The Electrical wiring on the Fraser River Model / Ian D. Smith. (Fraser River Model. Report FRM-221). September 27, 1955.
- 037 Model studies of improvement plans for the navigable channel in the main arm of the Fraser River at New Westminster, British Columbia / G.E. Jarlan. (Fraser River Model. Report FRM-222). December 23, 1955 [c.1, 3 (sic)].
- 038 Influence of proposed structures for the improvement of the shipping channel at New Westminster on the local water stages / G.E. Jarlan. (Fraser River Model. Report FRM-223). January 30, 1956.
- 039 Bed-load movement in the main arm of the Fraser River estuary. Part I: Laboratory flume studies to determine criteria for incipient motion. Part II: Estimated length of time when bed-material is in motion E.S. Pretious. (Fraser River Model. Report FRM-224). March 28, 1956.
- 040 Studies of Fraser River currents in the vicinity of Braid Street, New Westminster, B.C. / E. Vollmer. (Fraser River Model. Report FRM-226). October 16, 1956.
- 041 Plans for reduction of shoaling and for improvement of the Fraser River at New Westminster, B.C. (Part 1) / E. Vollmer. (Fraser River Model. Report FRM-227 part I). June 13, 1957.

- 041a Plans for reduction of shoaling and for improvement of the Fraser River at New Westminster, B.C. (Part 2) / E. Vollmer. (Fraser River Model. Report FRM-227 part II). April 23, 1958.
- 042 Model studies to reduce dredging at Steveston Cut, Fraser River, B.C. / E. Vollmer. (Fraser River Model. Report FRM-228 part A). July 30, 1958.
- 043 Estimate of quantity rate of bed-load transport in the Fraser River Estuary / E.S. Pretious. (Fraser River Model. Report FRM-229). August 21, 1958 [c.1-2].
- BOX 3
- 043a Model tests to determine the effects of proposed dredging by Fenco in the Port Mann-Sapperton areas of the Fraser River / E. Vollmer. (Fraser River Model. Report FRM-230). December 1, 1958.
- 044 Suggested glossary for river-training and harbour development structures / E.S. Pretious. (Fraser River Model. Report FRM-231). January 30, 1959.
- 045 Revision and addendum to "Final report on plans for reduction of shoaling and for improvement of the Fraser River at New Westminster, B.C." / E.S. Pretious, J.E. Barlow. (Fraser River Model. Report FRM-232 revision & addendum). March 29, 1962 [c.1-2].
- 045 Final report on plans for reduction of shoaling and for improvement of the Fraser River at New Westminster, B.C. / E.S. Pretious, E. Vollmer. (Fraser River Model. Report FRM-232). October 23, 1959 [c.2-3 (sic)].
- 046 Historical review of river training and its effects in the New Westminster area, Fraser River, B.C. E.S. Pretious, E. Vollmer. (Fraser River Model. Report FRM-233). March 31, 1960 [c.1-2].
- 047 Study and proposal for the elimination of dredging at Ladner Slough and the improvement of Ladner Channel for navigation / E.S. Pretious, E. Vollmer. (Fraser River Model. Report FRM-234). November 10, 1960.
- 048 Fraser River Model studies and prototype confirmations E.S. Pretious, E. Vollmer, J.E. Barlow. (Fraser River Model. Report FRM-235). July 15, 1961.

- 049 Final report on special observations of bed movement in lower Fraser River at Ladner Reach during 1950 freshet. and till June 1951. Including supplementary report no. 1 to memorandum re special observations 1950 freshet [sic]/ E.S. Pretious, T. Blench. Vancouver: National Research Council of Canada; Fraser River Model, July 6, 1951.
- 050 A Study of groins and their functions as hydraulic structures / E.S. Pretious, E. Vollmer. (Fraser River Model. Technical Note no. 35). July 1961.
- 051 Fraser River Model, a joint project between the University of British Columbia and the Department of Public Works, Canada: some facts relating to the project and a summary of studies made / E.S. Pretious. University of B.C., July 1961. [cover title is "Article," but no note of where or if it was published].
- 052 Revised instructional manual for electronic control equipment / Ian D. Smith. (National Research Council. Fraser River Model Technical Note No. 20). August 1951.
- 053 Fraser River Model index to map filing system. n.d.
- 054 Inventory of Fraser River Model equipment and supplies, March 31, 1953 / National Research Council. Division of Mechanical Engineering. [U.B.C. Department of Civil Engineering Report letterhead].
- 055 Inventory of Fraser River Model equipment and supplies, March 31, 1953 (revised to March 31, 1954) / National Research Council. Division of Mechanical Engineering.
- 056 Inventory of equipment and supplies revised to March 31, 1955 / University of B.C. Fraser River Model.
- 057 Inventory of equipment and supplies on long-term loan from the National Research Council, Canada / University of B.C. Fraser River Model. March 31, 1955.
- 058 Inventory of equipment and supplies as at March 31, 1958 / University of B.C. Fraser River Model.

- 059 Inventory of equipment and supplies as at March 31, 1959 / University of B.C. Fraser River Model.
- 060 Inventory of equipment and supplies as at March 31, 1960 / University of B.C. Fraser River Model.
- 061 Inventory of equipment and supplies as at March 31, 1961 / University of B.C. Fraser River Model.
- 062 Interim report no. 1, Vancouver Harbour Model / L. Cox, I.D. Smith. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-IR-1). February 26, 1954.
- 063 Interim report no. 2, Vancouver Harbour Model Burrard Inlet tidal survey / L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-2). October 8, 1953.
- 064 Vancouver Harbour Model Report No. 1. Oct. 8 1953. L. Cox, E.S. Pretious.
- 065 Vancouver Harbour Model Report No. 2. July 10 1953. E.S. Pretious.
- 066 Report no. 3. Vancouver Harbour Model / I.D. Smith, L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-3). January 7, 1954.
- 067 Report no. 4, Vancouver Harbour Model / L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-4). April .7, 1954.
- 068 Report no. 5, Vancouver Harbour Model / L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-5). July 5, 1954.
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- 069 Report no. 6, Vancouver Harbour Model / L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-6). October 21, 1954.

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Report no. 7, Vancouver Harbour Model / L. Cox. (University of B.C. Department of Civil Engineering. Vancouver Harbour Model VHM-7). December 31, 1954.

Laboratory flume studies, Deas Island Tunnel / E.S. Pretious, E. Vollmer, A.G. Mercer. (University of B.C. Department of Civil Engineering Report). November 18, 1957.

Brief summary of principal features of model / E.S. Pretious. Vancouver: Fraser River Model, February 14, 1955.

Principles of river training as an aid to navigation, with occasional reference to the Fraser River, B.C., basic laws of river behaviour / E.S. Pretious. (Fraser River Model Technical Report no. 5). July 22, 1960.

Wind-generated surface water waves / E.S. Pretious. (Fraser River Model Technical Report no. 6). March 1962.

Some recent developments in fisheries engineering research / E.S. Pretious, L.R. Kersey. (University of B.C. Fraser River Hydro & Fisheries Research Project. Memorandum Report). December 1957.