

OPERATIONS PLAN

RESOLUTION NO. 4-80

AUTHORIZING commitment of funds to Vancouver Lake restoration project.

WHEREAS, the Port of Vancouver has been involved in the effort to restore Vancouver Lake since 1965, and

WHEREAS, the Port of Vancouver has been the official sponsor and lead agency in the restoration effort since 1976 and,

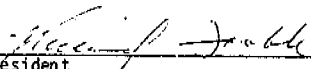
WHEREAS, the Port of Vancouver committed \$902,000 towards the lake restoration effort at that time and,

WHEREAS, costs for the project have escalated more than twice the original estimate,

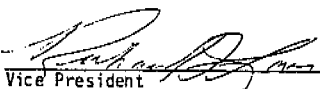
NOW, THEREFORE, IT IS HEREBY RESOLVED, that the Port will increase their share of the lake restoration costs in an amount of up to \$2,000,000;

PROVIDED, HOWEVER, that sufficient matching funds can be obtained from participating agencies to meet the estimated restoration budget costs as outlined in the Operations Plan for the project, and staff is hereby directed to so seek those funds.

BOARD OF COMMISSIONERS
PORT OF VANCOUVER



President

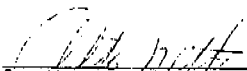


Vice President

ATTEST: .



Clerk of the Board



Secretary

APPROVED AS TO FORM:



Attorney for the Port of Vancouver

RESOLUTION
PAGE ONE OF ONE PAGE

THE OPERATIONS PLAN

SUMMARY

While there are several elements to be noted, the intent of this summary is merely to highlight some of the results of that study.

- As previously stated in the cover letter, project costs have risen from some \$8.3 million in 1975-76 to \$17 million in 1980, including in-kind contributions of some \$2.5 million.
- The cost estimates are based on one contractor doing the entire project over a 2½ year time span - the consulting team felt this would offer the best opportunity for cost savings to a contractor and thus would encourage low bids.
- The dredging program was based on the production capabilities of a twenty inch dredge working essentially 2-3 shifts per day year-round - the contractors would be able to decide what equipment to use provided they could meet the performance standards. The twenty-inch dredge (portable) was selected after considerable analysis as the most economic and efficient size in relationship to the project.
- All disposal sites identified are required at no cost to the project; all disposal sites identified are absolutely essential.
- Island construction, utilizing silt curtains, is both cost effective and replaces habitat otherwise lost through the dredging operations.
- The flushing requirements, based on additional research and "hands-on" experience at Moses Lake, have been reduced from 600 cfs to 300 cfs.
- The contractor shall have the option of constructing a temporary weir and "perching" the lake to re-create average high water conditions in order to keep the equipment operating.
- It would not be cost-effective for the port to own or lease and operate a dredge.
- It would be more cost-effective to turn the construction administration and management over to a consulting firm.

PROJECT COST ESTIMATES AND TASKS

The cost estimates and tasks noted below are taken from the Operations Plan. Please note they do not include the value (or cost) of in-kind services - they are the estimated cash requirements to do the work.

<u>TASK</u>	<u>COST ESTIMATE</u>
Preparation of contract documents including final plans and specifications	\$ 170,000

Dredging and disposal activities for some 8.5 to 9.0 million cubic yards of materials from the lake bottom	\$ 10,590,000
Flushing Channel Construction	2,640,000
Construction Management Services	460,000
Water Quality Monitoring	130,000
Fisheries Monitoring Program	310,000
Geotechnical Consultation	125,000
Dredging Consultation	<u>25,000</u>
Total	\$ 14,450,000

Note: See Section 5 for Scheduling and Estimated Expenditures.

PROJECT BUDGET AND ALLOCATIONS

Estimated Budget (Total)		<u>\$17,000,000</u>
EPA	(50%)	8,500,000
DOE	(23.5%)	4,000,000
POV	(11.8%)	2,000,000
Other local (in-kind)	(14.7%)	2,500,000
Original Grant Request (Total)		<u>\$ 8,278,000</u>
EPA	(50%)	4,139,000
DOE	(22.2%)	1,837,500
POV	(10.9%)	902,000
Other local (in-kind)	(16.9%)	1,399,500
Increases in Contributions (Total)		<u>205.4%</u>
EPA	(205.4%)	
DOE	(217.7%)	
POV	(217.3%)	
Other local (in-kind)	(178.6%)	

The \$4 million from the State reflects a telephone conversation regarding the maximum they feel they can make available under their guideline. The \$8.5 million from EPA reflects an informal discussion of what maximum project cost they feel would make the restoration project still feasible. If that cash can be obtained (\$12.5 million), then \$2 million would be needed from the Port to provide the cash estimated to be needed to do the job. In any case, a \$17 million dollar project would necessitate a minimum of \$1.7 million from the Port (10%). (Note: the attached resolution identifies the Port's cash commitment.)

SPECIAL GRANT CONDITIONS

AND STATUS THEREOF

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The conditions noted below are verbatim from the approved lake reclamation grant of August 1978. Comments are provided after each "condition" when appropriate.

CONDITION 1: This grant will support only those activities delineated in the operational plan as approved by the E.P.A. Project Officer. Support for the remaining dredging activities as specified in the approved operational plan, is contingent upon the degree of program progress, a recommendation of the E.P.A. Project Officer, and the availability of program funds in fiscal year 1979.

COMMENT 1: The scope of work and contract were approved by E.P.A. and D.O.E. in January of 1979. Formal approval of the Operations Plan (the draft has been reviewed by all affected and participating agencies) is contingent upon E.P.A. and D.O.E. processes.

CONDITION 2: No funds shall be expended until such time as permits, permit commitments and/or approvals have been applied for to the appropriate regulatory and management agencies. No construction shall commence until such time as all such permits and approvals have been obtained.

COMMENT 2: All permits are in process together with a submittal schedule.

- Federal: The Corps of Engineers is the only federal agency which issues a permit. If the dredging permit application follows the same format as the pilot dredging application, there should be minimal delays in processing. The Corps is responsible for reviewing the historical and archaeological sites and did not find the mitigating measures objectionable. The Corps cannot be more specific until the permit is filed with all necessary documents (this comment was given by all agencies contacted).

The Environmental Protection Agency could foresee no difficulties for approval of the Corps permit from E.P.A. Clarification of information and minor additions, if required, would be resolved by communication during the review process.

The Federal Fish and Wildlife, Water Division, Department of the Interior had several comments, though their concerns can be alleviated through the following mitigating measures: dredging a shallow channel to Mulligan Slough, scheduling the high and low water period of the lake and the lakes height to simulate work in natural conditions; avoiding sensitive areas during certain periods of the year; and creating a passage between Lake River and Vancouver Lake for migrating fish. The list of specific concerns and a response follows:

Agency: Concerned about fine particulate matter returning to the lake and being resuspended.

Response: The 98% removal efficiency will minimize suspended solid return of the lake, and the material used for island and beach information is already in the lake.

Agency: Disturbance of shoreline wildlife habitat.

Response: The dredge disposal areas will only temporarily disrupt habitat; two years after filling, vegetation returns to its natural state.

Agency: Disturbances of Blue Heron Rookery north of Kadow site.

Response: If we are too close, construct dikes and fill the site when birds are not present.

Agency: Concerned about where we would gain access to the lake.

Response: Would be worked out.

Agency: Concerned about flooding out beavers and willows during high water perching.

Response: Assured in scheduling low and high water periods.

This list of concerns continues; these seemed to be of primary importance.

- State of Washington: The Department of Ecology had no objection to the project. However, they felt that water quality limitations for dissolved oxygen and suspended solids would be issued, with additional provision that dredging operations cease in the event of a fish kill. This response was conveyed by the Department of Fisheries and the Department of Game.

The Division of Water Rights stated that a Water Rights Permit would be required, but they could foresee no problem in obtaining the permit. The Department of Natural Resources stated that no fee would be required for the dredging of State owned material (the sediments in the lake), but that the State would own the islands after their construction.

The Department of Transportation saw no problems in crossing Highway 501 as long as the State's standard regulations were observed. Two to three weeks processing time will be required. The permit is valid only for crossing Highway 501 right-of-way outside the Vancouver city limits.

- Clark County: A Shoreline Management Permit has been applied for and a Conditional Use Permit will also be required. No major problems are foreseen in obtaining either permit. Subjects to be addressed in the application are: 1) location of fills and their initial and final elevations, 2) long range use of spoil areas for secondary development, 3) spoils placed on agricultural land should support agriculture afterward, 4) a statement of compliance for meeting the Conditional Use Permit. The Operation plan will contain the necessary information to answer all questions for both permits. The Conditional Use Permit should be applied for simultaneously with the Shorelines Management Permit.

The Department of Public Works stated that obtaining a Grading Permit would not be difficult and is standard for any work in the county requiring the grading or excavation of material. The Utilities Division foresaw no problems either.

- City of Vancouver: The Engineering Department said a Highway Crossing Permit for crossing State Route 501 within the city boundaries would be required. This is a standard right-of-way permit requiring two to three weeks for approval and is routing. The highway is built on a dike and additional approval from the Corps of Engineers would be required.

- General: The State of Washington Parks Department and the appropriate Washington Health District will also submit comments to the Washington State Department of Ecology. The Department of Ecology also stated that our mitigating measures for preservation of archeological sites should be adequate for the Washington State Historic Preservation. It is also advisable that the Corps of Engineers contact this agency through the standard permit application process.

- Immediate Submittal Advised
 - Dredging Permit
Corp of Engineers
Will not be granted until all other permits are approved and contingent upon approval from Federal Agencies not requiring a specific permit.

 - Shoreline Permit
Clark County Regional Planner
90 to 120 Days

 - Water Rights
State of Washington
Regional Office of Water Rights
4 to 6 months

- Immediate Submittal Not Required
 - Water Quality Variance
State of Washington
Department of Ecology
30 days after Shoreline Permit is granted and contingent upon approval from State Agencies not requiring specific permits.

 - Hydraulic Permit
State of Washington Department of Fisheries and Department of Game
2 to 3 weeks

 - State Highway Crossing Permit
State Department of Transportation
2 to 3 weeks

 - Grading Permit
Clark County
2 to 3 weeks

 - City Highway Crossing Permit
City Engineering Department
2 to 3 weeks

CONDITION 3: No construction funds shall be expended until such time as the Port of Vancouver has a legal and valid fee simple title or such other estate or interest in the disposal sites and flushing channel of the project, including necessary easements and rights-of-way sufficient to assure undisturbed use and possession for the project purposes as stated in the E.I.S. and operation plan for construction and operation for the estimated life of the project.

COMMENT 3: All affected property owners have been contacted - all appear agreeable. The appropriate documents will be executed after formal approval to proceed with the project has been given.

CONDITION 4: No construction funds shall be expended until the operation plan is approved by E.P.A.

COMMENT 4: That is the purpose of this letter and attachments.

CONDITION 5: The major purpose of lake dredging for which E.P.A. funds are provided shall be to improve water quality, recreation and aesthetic values in and around Vancouver Lake. Dredging may be permitted for improvement of swimming areas, boat launching areas, and movement of small boats throughout the lake. The amount of material to be removed from the lake bottom shall be approximately 9 million cubic yards plus maintenance dredging and shall conform with the bottom configuration needed to obtain adequate lake circulation.

COMMENT 5: See Operations Plan.

CONDITION 6: Dredged material shall be disposed in such manner and location as to result in minimum loss to valuable habitat and to provide maximum opportunity for habitat mitigation and restoration of the aesthetic quality of the area. Habitats within proposed disposal site Va have high relative value (see "Wetland Habitat Evaluation", Vancouver Lake, November 1977) and therefore this area will not be considered as a disposal site. Area VI can only be used to the extent of alternative 7 of the U.S. Army Corps of Engineers diking project. Under no conditions shall areas containing rare and endangered habitat species be used for dredged material disposal purposes.

COMMENT 6: Other agencies have indicated a preference - if site Va or Vb must be utilized - that Va be used instead of Vb. Actually, Va is essential both for the project and future maintenance dredging of the sediment trap. Mitigation measures have been incorporated into the Operations Plan. The disposed site in that plan (Va) is now referred to as the "South Park Site". Otherwise, all of the conditions noted above are complied with as the operations plan notes.

CONDITION 7: The island located near the outlet of the lake at Lake River (see Wetland Habitat Evaluation Report, Figure 6) shall be allowed to remain in its natural condition for the use of beaver, raccoon, etc. Mulligan Slough shall remain in its present condition.

COMMENT 7: The dredging and deposition plan has been revised to comply with this condition.

CONDITION 8: Dredging and dredged material spoiling operations shall be located and scheduled such that there will be little or no effect on the reproduction and rearing processes of fish and wildlife and that recreational, agricultural, commercial, and industrial activities in the affected area may proceed without undue interruption. Close coordination therefore, must be maintained with fisheries, game, transportation, recreation and other appropriate resource and service agencies. At the request of the Project Officer the area around the production dredging site will be monitored to serve as an early warning of deteriorating water quality as recommended in the Pilot Dredge Study.

COMMENT 8: See the Operations Plan.

CONDITION 9: During spoiling operations, dredged spoils shall be handled in such manner as to minimize the return of suspended sediment back to the lake. Such materials shall be placed or otherwise contained such that resiltation upon recession of seasonal high water around the lake will not occur.

COMMENT 9: See the Operations Plan Report.

CONDITION 10: The final dredging and dredged material disposal plan and an operating/monitoring plan and design for the flushing channel developed cooperation with anadromous fisheries management agencies shall be submitted to the Project Officer for approval before any construction activities can be initiated.

COMMENT 10: As the E.P.A. project officer can attest, achieving this agreement was the reason the Operations Plan report was so long being completed.

CONDITION 11: Dredging and flushing channel construction should be scheduled so that improvements in water quality can begin at the earliest possible time.

COMMENT 11: See the Operations Plan Report.

CONDITION 12: All construction impacts and activities shall be monitored, inspected and recorded in accordance with the approved project operating plans and schedules and be reported on a regular basis acceptable to the Project Officer, but at least quarterly.

COMMENT 12: See the Operations Plan Report.

CONDITION 13: The applicant must certify that all practicable measures will be employed to eliminate violations of State Water Quality Standards as a result of dredged spoil run-off and overflow. At the request of the Project Officer the applicant may be required to monitor the water quality of the dredged spoil return flow(s) to ensure compliance with State Water Quality Standards.

COMMENT 13: See the Operations Plan Report.

CONDITION 14: The applicant must design and implement a water quality monitoring program as approved by the Project Officer. The monitoring program must contain at least the following information.

- a) Samples must be collected at the mouth of Burnt Bridge Creek and at least one representative site in the lake. Samples must be collected and analyzed monthly from September through April and biweekly from May through August.
- b) At the in-lake sampling site, ortho-and total phosphorus, inorganic and Kjeldahl nitrogen, temperature, and dissolved oxygen should be measured at two foot intervals from the surface to the bottom. Chlorophyll a must be measured in the upper mixing layer in conjunction with a determination of the predominant algal species. Secchi disk depth must also be measured.
- c) At the Burnt Bridge Creek site, volume of flow, ortho-and total phosphorus, inorganic and Kjeldahl nitrogen, temperature, dissolved oxygen, and turbidity must be measured.

COMMENT 14: See the Operations Plan.

CONDITION 15: In compliance with Section 106 of the National Historic Preservation Act of 1966, the Port of Vancouver will be required to conduct a site specific archaeological investigation of the affected areas. This survey would be submitted to the Advisory Council of Historic Preservation and the Washington State Historic Preservation Office for review and acceptance. Any mitigating measures recommended by the State Historic Preservation Officer would be considered by the Port of Vancouver and the Environmental Protection Agency. Mitigation measures acceptable to all three parties (State Historic Preservation Officer, E.P.A., and the Port of Vancouver) would be adopted and implemented.

COMMENT 15: See the Operations Plan.

CONDITION 16: No funds for construction shall be expended until such time as the following list of recommendations from the 208 Water Quality Management Plan for Burnt Bridge Creek Basin are implemented.

- a) Enact by December 31, 1978, ordinance (City of Vancouver and Clark County) which require that new development provide for control of stormwater run-off such that the rate of run-off after development not exceed the rate of run-off before development.
- b) Enact by December 31, 1978, clearing and grading ordinances (City of Vancouver and Clark County) which provide for erosion controls during construction.
- c) Enact by December 31, 1978, ordinance(s) which prohibits septic tanks in groundwater sinks, flood plains, and areas with high groundwater tables or poor soil or within 200 feet of streams or direct drainage to streams.
- d) Provide by December 31, 1978, a plan and schedule (Soil Conservation District) for implementing the adopted manual of Agricultural Best Management Practices for the control of runoff and livestock access to the lake and watershed areas.

- e) Submit beginning with the first calendar quarter of 1979 and continuing quarterly thereafter, a report documenting progress being made to implement as rapidly as possible the connection of septic tanks (existing and new development of three or more density per acre) to sanitary sewers.
- f) Document significant progress toward implementation of effective management and funding arrangements for full implementation of 208 Water Quality Management Plan. Documentation will be provided on a quarterly basis to show progress in attaining this goal.
 - (1) Complete "Management Agency Implementation Statements" including at a minimum the information suggested in the September 6, 1977, Federal Register titled "Acceptance and Approval of Plans and Designated Management Agencies" for all recommended management agencies.
 - (2) Obtain commitments of local funds for all management agencies to initiate recommended agencies.

If the Project Officer determines it to be feasible after appropriate technical studies, appropriate agencies shall as soon as possible, construct and operate first flush stormwater diversion facilities at points recommended by 208 plan and provide for its treatment.

COMMENT 16: Satisfaction of these conditions can only be verified by the E.P.A. Project Officer and the Water Programs Division's personnel overseeing local "208" programs - are the City and County's actions and program acceptable!

CONDITON'S 17, 18 and 19 (No comment necessary):

- . Quarterly progress reports will be submitted to the E.P.A. Project Officer. These reports shall cover work status, work progress, difficulties encountered, and preliminary data results and evaluations during the reporting period, remedial actions taken, and a statement of activity anticipated during the subsequent reporting period, including a description of equipment, techniques, and materials to be used or evaluated. The report shall also include any changes of key personnel concerned with the project and a discussion of expenditures.
- . The final report will be prepared in accordance with 40 CFR 30.635-2 and the "Scientific and Technical Publications"; 5/14/74, as revised and updated at the time of report preparation.
- . This award is subject to the requirements of 40 CFR Part 33, dated February 8, 1977, (copy attached).

IN-KIND CONTRIBUTION ANALYSIS

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DESCRIPTION

There are eleven parcels of land involved in the restoration project totalling some 1,050 acres. Upon project completion, some 40 acres would be devoted to the flushing channel, 455 acres would be "made" (beach area, shorelands and islands) and the remaining 555 acres would be filled by dredged materials.

It is important to note that aside from the very thorough environmental analysis that has been done, the adopted lake reclamation plan has been fit into a very specific land use plan. In point of fact, the adopted Comprehensive Plan, zoning ordinance and Vancouver Lake Park development plan undergirded the initial E.P.A. grant application.

Thus, in reviewing the eleven sites, it should be remembered the uses noted reflect the adopted development plans. The sites are as follows:

<u>Site</u>	<u>Acres</u>	<u>Use</u>
1. Buckmire	54	agriculture (pasture)
2. North Park	47	recreation (passive)
3. Kadow (Port)	242	industrial/port related
4. Dugen, Cenex, et. al.	110	recreation/agriculture (tillable)
5. South Park	65	recreation
6. S. E. Island	122	wildlife and shallow water habitat
7. N. E. Island	146	wildlife and shallow water habitat
8. N. E. Shore	112	recreation (passive)
9. ALCOA	71	industrial
10. ALCOA (stockpile & fill)	41	industrial
11. ALCOA (flushing channel)	40	flushing channel

IN-KIND COMPUTATION

In determining the extent of the in-kind contributions to be made towards the lake project - three considerations predominated: the in-kind contributions should be straightforward and readily verifiable; they should be, as much as possible, "direct" costs; finally, they should be set forth in a way that minimizes administrative tracking and processing. Thus, at this point, only those in-kind contributions more or less fitting those conditions are claimed.

The computation itself is straightforward: it is based on either the official assessed value of the agricultural land in question or formal appraised values (MAI's) of the industrial lands in question. The computation treats the use of the sites for the period of project construction (2½ years), plus 5 years (drying and consolidation time as per Corps of Engineer guidelines), as an "opportunity cost" to the property owners. In this instance, we have utilized a rate of return that the Port obtains on their leasehold interests (10%). In short, the in-kind contribution is treated as rent that would otherwise have to be paid. (The only exception is the land for the flushing channel, which would be irretrievably lost, and this is treated as an outright acquisition.) The formula is straightforward:

in-kind contribution equals the value of the land times the numbers of acres times the period of construction (plus five years) times the rate of return; such as
in-kind contribution = \$1800/acre X 54 (acres) X [2.5 + 5] X 10% = \$72,900.

IN-KIND CALCULATIONS

<u>Site</u>	<u>Acres</u>	<u>Value</u>	<u>In-kind Contribution</u>	<u>Value Base</u>
1. Buckmire	54	\$1800/a	\$ 72,900	assessed value
2. North Park	47	\$1800/a	\$ 63,450	assessed value
3. Kadow	242	\$8500/a	\$ 1,542,750	appraised value
4. Dugan, Cenex, et. al.	110	\$1800/a	\$ 148,500	assessed value
5. South Park site	65	n/a	--	mitigation
6. S. E. Island	122	n/a	--	mitigation
7. N. E. Island	146	n/a	--	mitigation
8. N. E. Shore	112	n/a	--	mitigation
9. ALCOA	71	\$8500/a	\$ 452,625	appraised value
10. ALCOA	41	\$9500/a	\$ 292,125	appraised value
11. ALCOA (flushing Channel)	40	\$9500/a	\$ 380,000	appraised value
			<u>\$ 2,952,350</u>	
Total In-kind Contribution Claimed			\$ 2,500,000	

If project funding is received and further in-kind contributions are necessary, these can be provided from the value of port, county and other agency staff time that has gone in and continues to be put in to the project at no cost to the project. Further, the port has spent (with the State) some \$127,000 on studies since 1976 and has not claimed them against the project. Finally, if necessary, the port could claim the salary, benefits and expense of the project director who has devoted 50% to 60% of his time to the project over the past four years. In short, another \$300,000 to \$500,000 of in-kind contributions could be documented and verified if necessary.

IMPLEMENTATION RECOMMENDATIONS

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CONSTRUCTION MANAGEMENT

The port intends to utilize the same consulting team that just completed the Operation Plan with one change - Boeing Engineering and Construction will be the lead firm and Dames and Moore will be a subcontractor. However, if that poses a problem, Dames and Moore could still maintain the lead role on paper. In any case, the reasons for this are several.

1. The port went through a lengthy and intensive selection process in years of the procedures laid out in 33.510 noted in the Federal Register. (Tuesday, February 8, 1977).
 - a. As the scope of work for the Operations Plan indicated, and as the RFP stated, the selection committee wanted to interview firms that had construction management capabilities.
 - b. The selection was made, in part, on the basis of overall ability to carry the project through to completion.
2. The amendment to the Grant is not a new phase - it is a request for additional funds and approval of the operations plan to begin construction.
3. Considerable delay to the project and increased project costs could occur if another selection process had to be gone through.
 - a. The minimum time for the selection process is three to four months.
 - b. An additional 30 to 60 days would probably be necessary for another consultant to familiarize with all the material about the project.
 - c. The process, if required, would be a needless exercise: a review of 33.510-1 (2) Evaluation of Qualifications, would strongly favor selection of the same consulting team.
4. Timing is absolutely critical to getting the bids out and awarded and getting construction underway, both in terms of costs and the construction schedule.
5. A cost analysis can be done, if required, to show that the cost of the construction management services is indeed competitive with the going market rate.

As a final note, both E.P.A. and D.O.E. project officers approved the scope of work, reviewed the qualifications and proposals of the firms that interviewed for the Operations Plan contract. The point is, finding truly qualified firms - especially minority firms - for this type of work is not that easy. At the present, the team of Dames & Moore, Boeing Engineering and Construction, Ogden Beeman and Associates, and Fred Cooper and Associates (the minority firm) would be the only ones that could really qualify for the job ahead.

CONSTRUCTION SCHEDULE

Attached is a copy of the construction schedule and estimated expenses over the construction period (exclusive of the construction management costs). The key permits required have been submitted and are in process. However, until the requests noted in the cover letter are approved, little more can be done at this time.