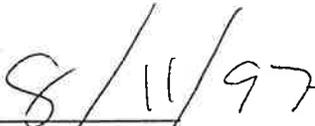


STATEMENT OF TECHNICAL AND LEGAL REVIEW

COMPLETION OF INDEPENDENT TECHNICAL REVIEW  
SAMMAMISH WEIR SECTION 1135 RESTORATION PROJECT  
MARYMOOR PARK, KING COUNTY, WASHINGTON

The Seattle District has completed the feasibility study on the Sammamish Weir Section 1135 Restoration Project, Marymoor Park, King County, Washington. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project, as defined in the Quality Control Plan. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and materials used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results; including whether the product meets the customer's needs consistent with law and existing Corps policy. The independent technical review was accomplished by an independent District team.

  
\_\_\_\_\_  
Bruce Sexauer, CENWS-EN-PL-CP.  
Technical Review Team Leader

  
\_\_\_\_\_  
Date

Certification of Independent Technical Review:

Significant concerns and the explanation of the resolution are as follows:

Hydrology and Hydraulics

*Comment:* How does this project affect navigation? Will small boats still be able to cross the weir in summertime?

*Response:* While the Sammamish River is considered "navigable" for its entire length, the reality of the situation is that during low flow periods (i.e. August-September), many boats cannot cross the weir. Canoes and kayaks which can be walked over the weir can still transit this reach of the river. The proposed restoration project will not correct this problem of difficult navigability during low flow periods. However, it will not affect navigation during other times of the year. As the General Design Memorandum for the original Sammamish River Flood Control Project states, the purpose of the project was to allow movement of small boats "to the extent now possible."

ENCLOSURE 1

*Comment:* The log at the downstream end of the fish resting pool needs to be held in place with more than quarry spalls. At high flows the log will float to the surface and float downstream.

*Response:* Concur. Drawings have been revised to include a "deadman" anchor (log or ecology blocks with cables) for the pool outlet log.

*Comment:* There may be impacts on the summer low lake level (Lake Sammamish) and winter high lake level from the weir modifications and the proposed vegetation. These need to be discussed in the report.

*Response:* Additional information has been provided in the fact sheet. Effects are expected to be extremely minor. The modified weir will cause high lake levels during normal spring and summer flows (35-100 cfs). Lake residents currently complain about the lake level being too low for their docks, piers, etc. during summer months. During 2-10 year high flows, the lake levels will be slightly raised (>6 inches). These flows are adequately conveyed by the river channel and flooding does not occur during these events, nor will it after project construction. At higher flows (>10 year event), there is no discernible effect on lake levels.

*Comment:* This project will improve fish passage at the weir, but does not address fish passage problems in the 1400 foot long transition area downstream of the weir. Why?

*Response:* Improvements for fish passage in the transition area were evaluated initially in the planning process. It was determined that the more critical passage problem was at the weir. Improvements downstream of the weir (and proposed pool) were not justified because the benefits of providing better habitat would not be significant and the costs were significantly higher.

### Economics

*Comment:* A financing plan and statement of sponsor's financial capability needs to be attached to fact sheet.

*Response:* Concur. King County's letter stating that they do have the necessary funds set aside in the FY97 budget for this project is attached.

*Comment:* The fact sheet should be more clear in stating why a full scale incremental analysis was not completed.

*Response:* Concur. The fact sheet has been revised to state that several alternatives were evaluated initially for their benefits versus costs, at the request of the local sponsor. The proposed project clearly provides the most benefits at the least cost (and is a small project), therefore, an incremental analysis was not justified for a project of this small scale.

### Environmental

*Comment:* A consistency statement (or table) needs to be provided to show differences, if any, between the early and current versions of the fact sheet.

*Response:* Concur. A consistency table has been added to the fact sheet that explains changes that have occurred since early versions of the fact sheet.

*Comment:* Is there a monitoring plan?

*Response:* Yes, it is detailed in the Environmental Assessment, Section 7.0. The monitoring plan is at an appropriate level for a small project.

### Civil Design

*Comment:* Is the proposed fencing sufficient to keep dogs out of the newly planted areas?

*Response:* The Corps and the local sponsor recognize that the proposed fencing will not keep all dogs or humans out of the newly restored bank zones. However, the fencing was requested by the local sponsor to be consistent with current fencing in the park. The height of the cross planks was coordinated with an active dog owner group to determine how to keep most dogs out. Further educational efforts planned by the local sponsor will encourage users to stay on the trail and use the designated access locations to the river.

*Comment:* Is gravel sufficient to keep the removable post sections in alignment?

*Response:* The local sponsor has requested gravel, because the removable post sections will only be moved once per year at the most frequent.

*Comment:* Need to add notes or drawing of proposed water diversion plan during weir modifications.

*Response:* Note has been added that indicates a temporary channel with a diversion pipe will be excavated on the left bank of the river prior to weir construction work commencing. Sandbagging will be used to isolate the weir during construction.

### Real Estate

*Comment:* The fact sheet does not clarify the local sponsor's existing interest in the project lands.

*Response:* Concur. The fact sheet has been revised to state that the local sponsor does own the lands in fee title. It is a King County park. There are no other land owners. King County will provide title information when they certify the lands.

*Comment:* Total area needed for the project needs to be stated in the fact sheet.

*Response:* Concur. The fact sheet has been revised to state that the total project area is 1.9 acres. The lands needed for construction access and staging are 1.6 acres, since 0.3 acres was previously provided as part of the Sammamish River Flood Control Project.

*Comment:* A letter sent to the local sponsor in April 1997 stated that the lands would be needed for 7 months. Is that correct, considering that you are proposing to construct the bank improvements this fall and the weir modifications in the summer of 1998?

*Response:* The local sponsor and the Corps have agreed that the lands will be needed for a time period between 12-18 months. The current cost estimate reflects land credit for 18 months. At the time the PCA is executed, the exact crediting will be adjusted to reflect the appropriate construction time period.

### Structures

*Comment:* Provide a map of the park and location of work area. Provide clarification of staging and construction areas.

*Response:* Concur. A park map has been included with staging and construction areas marked.

*Comment:* Clarify excavation of weir and likelihood of new grouted riprap bonding with the old material.

*Response:* Concur. Excavation of old weir surface will be between 6-12 inches to ensure a clean surface to bond the new grouted riprap to.

*Comment:* Provide a note that all workmen working in flowing water must wear an approved flotation device and all work shall be accomplished in accordance with applicable provisions of the US Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, 3 Sept 1996.

*Response:* Concur. Note has been provided.

### Cost Estimating

*Comment:* Bank run gravel estimate is too low.

*Response:* Cost estimate has been revised.

### Plan Formulation

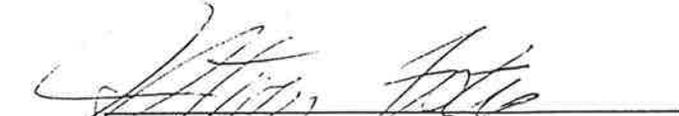
*Comment:* The existing project conditions do not detail the minimum notch depth and the with project conditions only describe the channel as deeper. Is the amount of fish passage directly related to notch depth, thus making depth important to determine the output of fish passage?

*Response:* The weir modifications will result in a typical depth of 2.25 feet through the notch, as opposed to the current condition where there is a maximum of one foot depth (at 35 cfs). Depths in the range of 2 feet are acceptable for fish passage.

*Comment:* The OMRR&R requirements for the project should be explained in the fact sheet. This should include, if needed, vegetation/weed control, weir modification maintenance, etc.

*Response:* The expected OMRR&R requirements have been provided as a separate sheet (not included in fact sheet).

As noted above, all concerns resulting from independent technical review of the project have been considered. The fact sheet, drawings and all associated documents required by the National Environmental Policy Act have been fully reviewed.

  
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J. Steven Foster, P.E.  
Chief, Planning Branch

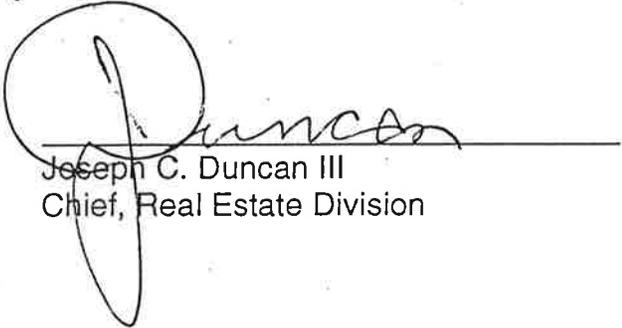
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P.M. O'Dell, P.E.  
Chief, Engineering Division

8/12/97  
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Date

  
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for Brian R. Applebury, P.E.  
Chief, Operations Division

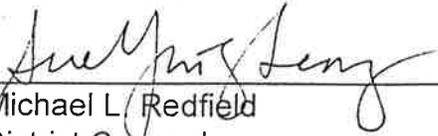
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Joseph C. Duncan III  
Chief, Real Estate Division

8/13/97  
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Date

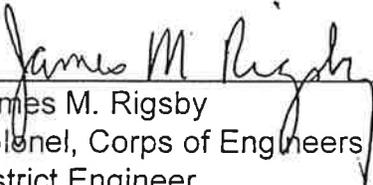
Certification of Legal Review:

The fact sheet for the Sammamish Weir Section 1135 Restoration Project, Marymoor Park, King County, Washington, including all associated documents required by the National Environmental Policy Act, has been fully reviewed by the Office of Counsel, Seattle District, and is approved as legally sufficient.

*for*   
\_\_\_\_\_  
Michael L. Redfield  
District Counsel

*8/14/97*  
\_\_\_\_\_  
Date

The Sammamish Weir Section 1135 Restoration Project at Marymoor Park, King County, Washington, technical document is approved.

  
\_\_\_\_\_  
James M. Rigsby  
Colonel, Corps of Engineers  
District Engineer

*14 Aug 97*  
\_\_\_\_\_  
Date