INSPECTION REPORT ON AUTHORIZED PROJECT

Sammamish River, King County, Washington Flood Control Project

8 July 2008

Current Rating: Unacceptable Current Status: Ineligible

Inspection personnel:

Charles Ifft – Corps of Engineers, Emergency Management Branch Cathy Desjardin – Corps of Engineers, Design Branch Nancy Faegenburg – King County Surface Water Management

1. Readiness for Flood Emergency:

- a. Has an organization with legal responsibility been established and a superintendent appointed who is responsible for flood fighting operations?
 - Yes, King County Surface Water Management. Nancy Faegenburg (206) 296-8372
- Is there a published flood fighting plan and is an appropriate supply of sandbags, tools, and other flood fighting equipment readily available for an emergency?
 King County has all appropriate tools and personnel for flood fighting if needed.
- c. Are key personnel trained in flood fighting techniques and use of equipment? Yes

2. <u>Maintenance Program:</u>

- a. Has a superintendent been designated who is responsible for operation and maintenance of the project?
 - The superintendent for this Project is Steve Bleifuhs, River Improvement Branch, King County.
- b. Is there a published program for inspection and maintenance of the project and project features?

 The O&M manual specifies maintenance and inspection requirements for the Project. King County has adhered to a less stringent program of maintenance and inspection that does not comply with the O&M manual.
- Are inspections being made in accordance with the requirements of Title 33, Code of Federal Regulations, Part 208, "Flood Control Regulations"?
 This inspection was conducted by King County and Corps personnel. Inspections are conducted jointly on a regular basis, but local reports are not being submitted.
- d. Do local interests as required by existing regulations submit inspection reports? The last local inspection report received from King County was dated 27 October 2004. No other reports have been submitted. Heavy workload is cited as the reason for not writing the inspection reports.
- Is the Operation and Maintenance manual furnished by the Corps available to the superintendent, and do his current instructions to maintenance personnel reflect the guidance in the manual? Yes, King County is aware of the requirements in the O&M manual. Numerous meetings with King County River Management section about this project have detailed Corps expectations for maintenance. Current staff at KC have been involved with flood plain management and are familiar with the Corps Authorities and programs.

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3. <u>Maintenance of Levees</u>:

a. Is the levee being maintained to the design section?

It is believed that the North Creek levees have been obliterated by construction of the 405 interchange and bike path. If the levees do exist, they have not been maintained for at least 20 years.

4. <u>Maintenance of Levee Crowns, Roadways, and Gates:</u>

- a. Is the levee crown at design and is it shaped for proper drainage?

 The majority of the project is maintained as a recreational bike path and is in good condition.
- b. Is undesirable growth permitted on the levee crown?

 Not on the right bank along the bike path. The left bank was not determined because it was not accessible.
- c. Are there any obstructions to vehicular passage along the crown? Gates along the bike path.
- d. Are access roads to and on the levee properly maintained?
 Left bank, yes. Right bank, not determined.
- e. Are access ramps properly maintained? Yes.
- f. Is unauthorized vehicular traffic permitted on the levee? No.
- h. Are keys to locked gates readily available to authorized personnel? Yes.

5. Maintenance of Revetted Areas:

- Have damaged or subsided areas been repaired?
 No damage or associated repairs have been noted for the past year.
- Is riprap material sound, e.g., not cracked or weathered?
 Riprap is not visible at many locations along the slough due to the blackberries, native vegetation and silt build up. Where it is visible, it is in good condition.
- Is bedding and/or bank material beneath riprap exposed or disturbed?
 No.

maintenance has been done in this area for many, many years.

- d. Are there at any areas where riprap or revetment works have been displaced, washed out, or removed?
 No areas of serious riprap loss were noted.
- d. Are the revetted areas being kept clear of undesirable growth?

 No. Heavy growth of blackberries on both banks throughout the project were noted. Between Redmond and Bothell, the right bank was mostly covered with reed canary grass and the left bank with blackberries. Small reaches of both banks have been planted in native vegetation which has now matured so that it is obstructing visual inspection of the project, encroaching on conveyance and further slowing water velocity which is encouraging deposition of sediment. No vegetation

6. <u>Maintenance of Drainage Structures:</u>

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a. Are headwalls being kept in a reasonable state of repair, e.g., no cracks, spalling, or deterioration that will affect the stability of the structure?

No problems noted.

- b. Are flap gates, manually operated gates and valves in good repair and operating condition?

 No problems were noted with any flap gates during this inspection. Not all flapgates were visible through the heavy vegetation.
- Are pipes through levee in serviceable condition, e.g., metal sound, no rust holes, no settled sections, no evidence of piping or subsidence?
 All pipes inspected appear to be serviceable.
- d. Are inlet and outlet channels clear of growth and debris?

 There is heavy growth of vegetation along all inlet channels.
- Has riprap around drainage structures been displaced?
 None noted.
- f. Is there any erosion that might endanger the stability or water- tightness of the structure? No serious erosion was noted.

7. <u>Maintenance of Channels and Floodways</u>:

a. Is the carrying capacity of the channel or floodway reduced by sand and silt deposits and by undesirable growth or debris?

The brushing in the transition zone has helped the conveyance problem into the channel. The County did not brush the right side in 2007 as agreed to due to permitting problems. KC personnel noted that there has been no additional attempt to gain permits for brushing this season.

- b. Are tributary channels clear of debris and other materials that might jeopardize proper operation of the project under flood conditions?
 - No maintenance has been conducted on the tributary channels for quite some time.
- c. Is the dumping of trash and debris allowed?

 There does not appear to be a problem with trash or debris.
- d. Are there any unauthorized structures or encroachments obstructing the channel or floodway?

 There have been numerous unauthorized modifications to the project over the years that have not been technically reviewed by the Corps. The current mod by the City of Redmond has had the 404 permit invalidated since the project mod was not approved by HQ. The study to prove that there is no change in the authorized intent of the project is ongoing and will take some time to complete according to KC.
- e. Are wave wash, sloughing, etc. damaging banks? None noted.
- f. Have necessary repairs been made to eroded areas? N/A

8. <u>Control of Encroachment and Trespass</u>:

a. Have unauthorized structures through, over or adjacent to the project been permitted?

Many structures through and adjacent to the project have been built over the years. Local jurisdictions have been constructing fish enhancement projects along the channel for many years without coordinating with KC or the Corps. Some projects through Redmond have received a Corps regulatory permit, but not project mod approval. The Oct 2006 memo from General Riley tied the two processes together and now a mod approval must be obtained prior to issuance of a 404 permit.

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- b. Is there any unauthorized excavation within the project rights-of-way? See 8a.
- Have agricultural activities been permitted within the project rights-of-way?
 No.
- d. Is there any unauthorized burning of grass and weed?
- e. Is unauthorized vehicular traffic permitted on the levees?
- f. Are boundaries properly identified? Yes.

9. <u>Control of Burrowing Animals:</u>

- a. Is there an effective program for control of burrowing animals? None that is apparent.
- Are animal burrows properly filled and compacted?
 No burrows were noted.

10. Remarks:

The scheduled brushing of the right bank of the transition zone was not accomplished in 2007 as was agreed to due to permit and regulatory issues. Nancy said she will put it on the work crew schedule this year for brushing and then next year the left bank is scheduled for brushing. This process will be repeated every other year until such time as the County gets the transition zone modified under section 1135 (or their own methods) so that brushing will no longer be needed. There has been no further movement on the 1135 project as of this date (lack of funding on the Fed side), but the County would still like to have it constructed and may moved forward on their own.

Due to the lack of vegetation maintenance, the project has been currently rated as unacceptable. It will no longer be eligible to receive Federal assistance under the PL84-99 program.

The rest of the project continues to be poorly maintained. No brushing has been accomplished along any portion of the project. The Sammamish re-leaf program has planted more trees into the project as part of their effort to turn the flood control project into a more natural river. These plantings will eventually grow to a size that will need to be brushed as is quite evident on segments that have already been planted in the past. Vegetation maintenance is still a requirement for the Project.

Charles Ifft, M.S., P.E. Inspection of Completed Works Program Manager Emergency Management Branch