



King County

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September 30, 2009

The Honorable Julia Patterson
Chair, King County Flood Control Zone District Board of Supervisors
Room 1200
C O U R T H O U S E

Dear Supervisor Patterson:

This letter transmits to the King County Flood Control District (District) Board of Supervisors the final 2009 report and recommendations of the District Advisory Committee, consistent with King County Council Ordinance No. 15728.

The Ordinance created a 15-person Advisory Committee to provide expert policy advice to the District Board of Supervisors on regional flood protection issues. Ordinance No. 15728 specifically directed the Advisory Committee to review and recommend an annual work program and budget for the District, including capital improvement projects and funding levels.

The Advisory Committee includes the Mayors (or an alternate) from the following cities: Tukwila, Auburn, Kent, Renton, Snoqualmie, North Bend, Carnation, Seattle and Bellevue, as well as a representative of the Unincorporated Area Councils, the King County Executive, and four representatives nominated by the Suburban Cities Association (SCA).

The District Advisory Committee met in March, April, and May of 2009 to:

- Adopt by-laws and elect a Chair,
- Review the damages and repair needs from the January 2009 flooding disaster, including damages at the U.S. Army Corps of Engineers' (Corps) Howard Hanson Dam and the resulting changes to King County's flood warning and flood patrol operations on the Green River,
- Review and recommend changes to the District's Operating and CIP budget to address the damage from the 2009 flood disaster and the increased risk of future flooding in the Green River Valley, and
- Review and comment on the proposed 2010 capital and operating budgets and 2010 capital projects.

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The Advisory Committee unanimously approved by-laws and operating procedures and elected City of Kent Mayor Suzette Cooke as chair of the Advisory Committee, with City of Kirkland Deputy Mayor Joan McBride as Vice-Chair.

The damage to the abutment that is adjacent to the Howard Hanson Dam and the resulting reductions in the storage capacity of the dam significantly increases flood risks in the Green River basin. In addition to discussions about the operational changes implemented to respond to this situation, the Advisory Committee also reviewed information about capital projects completed in 2008, ongoing in 2009, and proposed actions for 2010-2015 (many in partnership with the Corps) to rehabilitate several major components of the levee system.

The Advisory Committee's recommendations are summarized below:

1. The Advisory Committee unanimously endorsed the process used by the District to evaluate and prioritize emergency repairs in response to the January 2009 flood.
2. The Advisory Committee unanimously approved the proposed 2010 capital and operating budgets and the 2010-2015 capital improvement program list.

State law provides for the District Board of Supervisors to adopt a resolution concurrently with the county budget to authorize the implementation of flood protection projects and associated funding. Consistent with state law, this resolution will be transmitted within that timeframe.

As you know, with the damage at the Howard Hanson Dam, significant additional District resources are needed for flood fighting in the Green River Valley. The Advisory Committee will be reconvened in November to reevaluate the 2010 project priorities in light of the needs in the Green River Valley this fall.

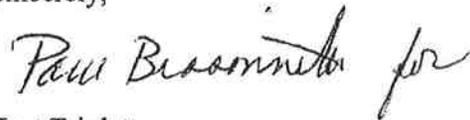
I appreciate the continued leadership of the Board of Supervisors on flood protection issues. With the flood season fast approaching and the increased risk of flooding in the Green River Valley resulting from the reduced flood protection capacity of the Howard Hanson Dam, our work to continue to implement the Advisory Committee's recommendations is particularly important. I know we share the common goal of working proactively to protect our citizens, their property, and the regional economy from the ravages of flooding.

If you have specific questions, please feel free to contact Mark Isaacson, Division Director with the Water and Land Resources Division in the Department of Natural Resources and Parks, at 206-296-6587.

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Thank you for your review of this report. King County staff is happy to provide briefings on the Advisory Committee meetings at your request.

Sincerely,

A handwritten signature in cursive script that reads "Kurt Triplett for".

Kurt Triplett
King County Executive

Enclosures

cc: King County Flood Control District Supervisors
ATTN: Kjristine Lund, Executive Director, King County Flood Control District
Tom Bristow, Interim Chief of Staff, King County Council
Saroja Reddy, Policy Staff Director, King County Council
Anne Noris, Clerk of the Board
King County Flood Control Zone District Advisory Committee Members
Bob Cowan, Director, Office of Management and Budget
Theresa Jennings, Director, Department of Natural Resources and Parks (DNRP)
Mark Isaacson, Division Director, Water and Land Resources Division, DNRP

King County Flood Control District Advisory Committee 2010 Final Recommendations

August 31, 2009

BACKGROUND

On April 16, 2007, the Metropolitan King County Council passed Ordinance No. 15728, creating a countywide flood control zone district, in accordance with chapter 86.15 RCW. Consistent with state law, the ordinance appointed a 15-person advisory committee to advise the Board of Supervisors of the District.

The ordinance directed the Advisory Committee to provide expert policy advice to the Board of Supervisors of the King County Flood Control District (District) on regional flood protection issues and to review and recommend an annual work program and budget for the District, including capital improvement program (CIP) projects and funding levels.

The District Advisory Committee is comprised as follows: the mayors (or an elected alternate) from the following cities: Tukwila, Auburn, Kent, Renton, Snoqualmie, North Bend, Carnation, Seattle and Bellevue, as well as a representative of the Unincorporated Area Councils (UAC) and four representatives nominated by the Suburban Cities Association (SCA).

RECOMMENDATIONS

As described in greater detail below, the Advisory Committee made the following recommendations during its 2009 meetings:

- **The Advisory Committee unanimously endorsed the process used by the Flood Control District to evaluate and prioritize emergency repairs in response to the January 2009 flood. These recommendations were subsequently adopted by the Board of Supervisors.**
- **The Advisory Committee unanimously approved the proposed 2010 capital and operating budgets, as well as the proposed 2010-2015 CIP project list.**

OVERVIEW

The District Advisory Committee met in March, April, and May of 2009 to:

- Adopt by-laws and elect a Chair,
- Review the damages and repair needs from the January 2009 flooding disaster, including damages at the U.S. Army Corps of Engineers' (Corps) Howard Hanson

Dam and the resulting changes to King County's flood warning and flood patrol operations on the Green River,

- Review and recommend changes to the District's Operating and CIP budget to address the damage from the 2009 flood disaster and the increased risk of future flooding in the Green River Valley, and
- Review and comment on the proposed 2010 capital and operating budgets and 2010 capital projects.

To complete their work, committee members heard presentations from King County staff; engaged in group discussions, participated in staff briefings; and conducted preliminary "temperature read" votes that allowed the members to better understand each others' interests and perspectives.

Voting on the evaluation process used to assess and prioritize flood damage emergency repairs occurred in March and the Committee unanimously recommended adjustments to the 2009 capital program in April. These adjustments were subsequently adopted by the Board of Supervisors in May. Final voting on the Advisory Committee's 2010 budget and work program recommendations also occurred at the May meeting.

Committee members who attended the meetings included:

City of Auburn: Councilmember Bill Peloza (alternate)

City of Bellevue: Mayor Grant Degginger

City of Federal Way: (representing SCA): Mayor Michael Park

City of Kent: Mayor Suzette Cooke, Advisory Committee Chair

City of Kirkland: Deputy Mayor Joan McBride

Unincorporated Area Councils: Richard Bonewits

City of Maple Valley: (representing SCA): Mayor Laure Iddings

City of North Bend: Mayor Kenneth Hearing

City of Renton: Mayor Denis Law

City of Seattle: Councilmember Bruce Harrell

City of Shoreline: (representing SCA): Councilmember Ron Hansen

City of Snoqualmie: Mayor Matt Larson

City of Tukwila: Mayor Jim Haggerton

Meeting materials are available at:

<http://www.kingcounty.gov/environment/waterandland/flooding/flood-control-zone-district/governance/advisory-committee.aspx>

THE COMMITTEE PROCESS

As noted previously, the District Advisory Committee met three times in spring 2009. Information on the damage from the January 2009 flooding, the District's response during the flooding, and the longer-term response needed in terms of flood facility repairs and budgetary and capital adjustments was presented and discussed. These discussions also included reports on the status of the Howard Hanson Dam on the Green River, including the assessments to date of

damages from the January flooding, operational changes to the District's flood warning and response activities in response to these operational changes, and implications for capital projects in 2010. The District's proposed 2010 work program and six-year CIP were also presented and discussed.

"Temperature read" votes were taken in March and May. Committee members discussed the process used to reprioritize the 2009 CIP in response to the repair needs resulting from the January 2009 flooding, as well as the proposed 2010 capital and operating budgets and the 2010-2015 capital improvement project list.

The Advisory Committee's deliberations were supported by staff-level Basin Technical Committees (BTCs) in each of the four major river basins within King County (South Fork Skykomish and Snoqualmie, Green-Duwamish, Cedar-Sammamish, and White). Staff from all jurisdictions in King County were invited to participate in these meetings. The BTCs first met in advance of the Advisory Committee's schedule, and reviewed, analyzed and provided input on the following:

- Emergency repair adjustments to the 2009 budget,
- Proposed 2010 capital project list in each basin, and
- Proposed 2010-2015 CIP.

COMMITTEE RECOMMENDATIONS TO THE KCFCD BOARD OF SUPERVISORS

1. The Advisory Committee unanimously endorsed the process used by the Flood District to evaluate and prioritize emergency repairs in response to the January 2009 flood.

In 2007, the Advisory Committee recommended, and the Board of Supervisors adopted, a project prioritization approach using a combination of flood risk reduction and implementation criteria. Such an approach allows for strategic sequencing of capital projects and ensures high priority projects are implemented and potential constraints are identified.

In March, King County staff presented the Advisory Committee with a summary of flood facility repair needs and the process for identifying new 2009 repairs, which is based on the flood risk and implementation criteria. At the April meeting, staff presented a revised 2009 CIP—reviewed and recommended by the BTCs—and identified funding needs.

In March, a "temperature read" vote demonstrated unanimous support for the process proposed to reprioritize in the CIP to address damage from the January flooding. The Advisory Committee also unanimously supported the proposed process for identifying critical 2009 damage repair needs again during its April meeting. Furthermore, the committee supported a process that uses the implementation factors (e.g. readiness to proceed, landowner willingness, grants and partnerships) to identify 2009 funding allocations that could be deferred to accommodate priority flood response needs without compromising public safety. Funding sources include projects that are deferred due to

unmatched grants, acquisitions that will not proceed as planned due to landowner unwillingness, and surplus funds from completed projects.

2. The Advisory Committee unanimously approved the proposed 2010 capital and operating budgets and the 2010-2015 CIP Project list.

The BTCs reviewed the flood risk reduction and implementation scores for projects proposed for 2010 and discussed any necessary adjustments. Based on the discussion of priorities in each basin and the opportunities and constraints on the implementation of these priorities, the BTCs recommended a strategy and capital project list for each basin. The recommended capital project list included revisions to 2010 priorities listed in the District's six-year CIP to reflect new needs following the January 2009 flooding.

The Advisory Committee was presented with detailed information on the 2010 work program recommendations at its May meeting. The flood risk reduction strategy for each basin was presented, along with a basin-by-basin discussion of the proposed capital projects. The focus of the proposed 2010 capital program is to continue to implement sustainable, long-term solutions to flood and channel migration risks, while simultaneously addressing critical repair needs resulting from the January 2009 flood and responding to new information on flood risks from updated floodplain maps on the White River. In addition, King County staff and BTC members sought to retain high priority projects previously adopted in the 2009-2014 CIP when developing project recommendations.

The 2010 capital work program reflects changes required due to emergency repairs completed immediately following the January flood, as well as those needed due to reduced flood storage capacity at Howard Hanson Dam. The Committee also discussed partnerships with the Corps for projects on the Green River. These include the Tukwila 205 and Horseshoe Bend repairs, as well as the Russell Road project proposed under the Corps' Ecosystem Restoration Program (ERP). The repair projects are 100 percent federally funded through the Corps, while ERP projects include 65 percent federal funds and a 35 percent local match.

The Advisory Committee was briefed on the operating elements of the District's work program, including flood preparedness and flood warning, flood hazard assessments and mapping, grants and mitigation activities, and annual maintenance and monitoring. Staff summarized proposed changes in the operating budget from 2009 to 2010. Some of the key changes include technical assessments of channel capacity and sediment deposition on the White River, initiated in 2009 in partnership with the Corps, Pierce County, and the U.S. Geologic Survey. This technical information is fundamental for determining the effectiveness of any proposed flood risk reduction capital projects in and around the City of Pacific, as well as for permitting of any projects that are proposed. The proposed budget also includes increased funding to provide sandbags in each of the major river basins, in response to a directive from the King County Council.

To address flood damage repair needs and other emerging information, such as the issues surrounding Howard Hanson Dam, King County staff presented a revised six-year CIP project list, for years 2010-2015.

After discussion of the proposed 2010 capital and operating budgets, the Advisory Committee recommended the proposed work program and CIP project list. These documents are provided as Appendix A and Appendix B. This is considered the Advisory Committee's final recommendation to the Board of Supervisors for 2010.

**King County Flood Control District
Proposed 2010 Work Program
05-06-09**

The proposed King County Flood Control District (District) work program is comprised of two major categories:

- Programmatic Work Program
 - Flood Preparedness, Regional Flood Warning Center, and Post Flood Recovery
 - Flood Hazard Assessments, Mapping, and Technical Studies
 - Planning, Grants, Mitigation, and Public Outreach
 - KCFCD Implementation
 - Resource Management, Annual Maintenance, and Facility Monitoring
 - Management, Finance, Budget and General Administration
- Capital Improvement Program (CIP)
 - Capital Improvement Projects
 - Acquisitions and Elevations

Flood Preparedness, Regional Flood Warning Center and Post Flood Recovery Program

Program Summary: Implement a comprehensive approach to preparing and educating citizens for flood events, coordinating emergency response and regional flood warning center operations during flood events, and ensuring consistency across basins for post-flood recovery actions. Specific programmatic elements include:

Flood Preparedness

- Coordinate flood hazard education program, communication tools (brochures, web content, customer service bulletins, etc.) to increase the awareness of flood risks and prepare citizens for flood events.
- Track and disseminate flood hazard technical information to other King County departments (Department of Transportation [DOT], Department of Development and Environmental Services [DDES], etc.) and other local, state, and federal agencies.
- Coordinate annual flood awareness month and associated public information program strategy (meetings, websites, other) designed to increase the public's awareness of locally available resources and information.

Regional Flood Warning Center

- Staff the Regional Flood Warning Center monitoring and emergency first responder flood patrols during flood events.
- Coordinate with the following agencies in support of the Regional Flood Warning Center operations:
 - Local governments

- City of Seattle and U. S. Army Corps of Engineers (Corps) on dam operations
- National Weather Service on weather forecasts and flood predictions
- King County Office of Emergency Management for coordinated emergency response activities
- United States Geological Survey (USGS) on river gauging contract and gage upgrades
- King County DOT on road closures and emergency flood damage and repair response activities
- Coordinate flood emergency response activities.

Post-Flood Recovery Operations Program

- Complete preliminary damage assessments, and develop and track Project Worksheet completion, expenditures and general documentation.
- Coordinate with the Federal Emergency Management Agency (FEMA) and Corps on flood damage repairs and federal funding opportunities; determine eligibility.
- Identify projects and complete grant applications for post-disaster Hazard Mitigation Grant Program opportunities.

Flood Hazard Studies, Mapping, and Technical Services Program

Program Summary: Generate technical information used to characterize, quantify, and delineate flood risks, as well as to develop and implement strategies and actions to reduce those risks. Flood hazard technical information types include hydrologic and hydraulic studies, floodplain and channel migration zone maps, geologic studies, geographic information system (GIS) land use data, dam operations studies, risk assessments and flood hazard management corridor working maps. Specific programmatic elements include:

- Conduct independently or with consultant contracts, as needed, the following technical study and mapping projects:
 - Floodplain delineation and mapping
 - Channel migration zone delineation and mapping
 - Channel monitoring
 - Gravel removal studies and analysis
 - Risk assessments
 - Hydraulic modeling
- Coordinate with FEMA and other local, state and federal agencies on mapping studies and products.
- Maintain accessible flood study and flood hazard data in a floodplain mapping library.

Flood Hazard Planning and Grants, Repetitive Loss Mitigation, and Public Outreach

Program Summary: Manage repetitive loss area mitigation coordination, public outreach, flood hazard management planning, and grant preparation. Specific programmatic elements include:

Repetitive Loss Area Mitigation Planning Program

- Track repetitive loss area and repetitive loss property information.
- Provide ongoing program database updates, including tracking property owner communications, interest, and staff recommendations for mitigation options.
- Manage and administer King County's Home Buyout and Acquisition Program.

Public Outreach and Communications Program

- Provide increased citizen preparedness for floods.
- Provide community outreach support for capital projects.
- Support media relation activities.
- Coordinate citizen involvement and prepare and facilitate public meetings.
- Coordinate updates to webpage and other outreach and educational materials.
- Coordinate outreach to landowners with facility easements regarding maintenance work.

Community Rating System (CRS) Coordination

- Manage the CRS program, to maintain and improve CRS rating.
- Coordinate/manage updates and process to the planning and regulatory processes for future flood plan updates, King County's Regional Hazard Mitigation Plan, King County Comprehensive Plan, Shoreline Master Plan, and Critical Areas Ordinance. Includes coordination with other jurisdictions.

Grants Program

- Administer biennial Washington State Department of Ecology Flood Control Assistance Account Program (FCAAP) grant process and track successful grants to ensure timely reporting.
- Coordinate and assist with preparation of applications for all state and federal flood hazard mitigation grant processes.
- Provide grant application technical assistance to cities and other stakeholders, as needed.

King County Flood Control Zone District Implementation

Program Summary: Implement flood hazard management programs and capital improvement projects for the District. Teams of staff will be organized by river basin and will be responsible for identifying, implementing, and tracking flood risk reduction program and project actions within a given basin. Staff will also coordinate five basin technical committees with partner jurisdictions and maintain relationships with communities and other agencies. A District Coordinator will ensure that District governance, reporting, legislative process and cross-basin consistency is achieved. Specific programmatic elements include:

Basin Team and Basin Technical Committee Program

- Identify and prioritize projects for implementation, and refine as needed based on work program priorities.
- Provide project design, construction and management on major maintenance and repair projects, new facility design and construction, home buyouts and acquisitions, and home elevations, including technical oversight and quality control of plans and documents for capital improvement projects within basin.
- Staff and coordinate regular Basin Technical Committees.
- Implement work program to guide private property owner and community outreach necessary to complete capital improvement projects.
- Develop ongoing relationships with cities, agencies, and stakeholders within the basin, and ensure consistency across basins under the countywide flood control zone district framework.
- Support or lead staff on acquisition coordination to Acquisition Unit.
- Provide river stewardship activities.
- Coordinate and support logjam investigation and response/action.
- Respond to, investigate and provide technical assistance for enforcement on complaints and general inquiries. Conduct citizen and/or landowner contact, communication and outreach.
- Work with the River Safety Council on project design proposals.
- Coordinate with the DOT Roads Services Division on construction crew scheduling.
- Provide quarterly project reporting to management.
- Address and seek resolution on basin-specific floodplain management issues.

KCFCD Advisory Committee Coordination

- Staff and coordinate the KCFCD Advisory Committee meetings and provide staff support to the Board of Supervisors.
- Track basin technical committee meetings, issues, and cross-basin policy issues.
- Serve as internal representative to analyze and prepare recommendations for policy issues pertaining to the District.
- Coordinate public process across KCFCD to ensure consistent outreach across basins.
- Report KCFCD activities, accomplishments, revenues and expenditures through an annual report.
- Respond to Advisory Committee and Board of Supervisors requests for information regarding rate structure options, and other issues.

Resource Management, Annual Maintenance, and Facility Assessment Program

Program Summary: Coordinate facility and property maintenance for the District which includes 500 flood protection facilities covering 119 linear miles and approximately 430 acres of land acquired for flood mitigation purposes. Specific programmatic elements include:

Annual Maintenance Program:

- Manage work authorizations and coordinate with DOT Roads Services Division or contractor on completion of maintenance activities:
 - Facility mowing
 - Access gate maintenance
 - Access road maintenance
 - Noxious and non-native plant removal
 - Irrigation and watering
 - Interpretive sign installation and maintenance
- Coordinate design of facility and acquisition property revegetation projects.
- Coordinate design and implementation of volunteer planting and other land stewardship projects.
- Provide land and resource management including management of lands for appropriate levels of public access.
- Inspect, assess and, if necessary, remove hazardous trees.
- Collect and remove garbage from fee-simple owned property.

Flood Protection Facility Assessment and Monitoring Program

- Develop methods for facility inventory/assessment program.
- Conduct annual, spring and fall, facility assessments.
- Conduct, or assist with, post-flood damage assessments.
- Produce annual report on facility conditions.

Facility Maintenance and Repair Program

- Conduct or assist with facility assessments, consistent with the facility assessment and monitoring program.
- Support or lead staff on the Green River Pump Station Operation and Maintenance Program.

Sediment Management, Large Woody Debris, In-stream Management Program

- Coordinate sediment management program/project actions to reduce flood risks.
- Coordinate large woody debris program/project actions to reduce flood risks.
- Monitor other in-stream hazards and coordinate associated flood risk reduction actions.

Program Management and Supervision; Finance, Budget and General Administration

Program Summary: Provide supervisory, budgeting and administrative services for the District. Specific programmatic elements include:

Management and Supervision Tasks

- Manage the technical and business operations of the District work program and staff.
- Develop annual operating and capital budgets, work programs and staff allocations.
- Provide supervision, technical assistance and quality control/assurance to staff.

- Carry out responsibilities for hiring, management performance, developing training expectations and recommending effective discipline and termination.
- Ensure programs and projects are completed to carry out the goals and objectives of the River and Floodplain Management Program.
- Work collaboratively with other government and regulatory agencies, departments within King County, and the public to address environmental policies and issues related to floodplain management principles, goals and objectives.

Finance and Budget Operations

- Develop annual capital and operating budget.
- Track and report annual capital and operating budget, revenue and expenditures.
- Provide grant and cost-share reporting, billing and documentation.
- Provide contract and procurement management, support and strategy.
- Support capital project managers/engineers with detailed project expenditures, revenues, scheduling, contract management and other finance needs in support of CIP implementation.

General Administration

- Records maintenance.
- Copying, filing, correspondence, and scheduling.
- Meeting preparation, coordination and support.
- Photo-documentation management.
- General program administrative support.

Capital Improvement Program Implementation

Program Summary: The vast majority of the proposed District work program and budget is dedicated to the implementation of major maintenance and capital projects. This work includes managing and implementing major maintenance, repair and new flood protection facility design, permitting and construction; home buyouts and acquisitions; and home elevations.

Construction of flood protection infrastructure has paved the way for considerable residential, commercial and industrial economic development in flood hazard areas. The flood protection infrastructure has reduced the frequency of flooding and severity of erosion, and contained flood flows within levees that has allowed for significant economic growth by promoting development of historical floodplains, as exemplified by the industrial and commercial development lining the lower Green River. However, these areas will always face the potential risk that the flood protection facilities could be overwhelmed, resulting in serious flood damage, significant impacts to the regional economy, or personal injury and death. While the costs of flood protection facility construction and maintenance are borne by the public, the value to the economy is a regional benefit.

The CIP will complete high priority and regionally significant flood hazard management capital improvement projects to significantly protect public safety and reduce flood risks to

the regional economy, transportation corridors, and public and private infrastructure and property. These capital improvement projects include retrofits and repairs to levees and revetments; levee setbacks to improve slope stability and increase flood conveyance and capacity; and targeted acquisition of repetitive loss properties and other at-risk developments. The Flood Hazard Management Program (FHMP) Plan recommends approximately 135 capital projects for the ten-year period (2008-2017), of which approximately 95 are construction projects and 40 are acquisition only.

The CIP will provide project design, construction and management on the following project implementation elements:

- Scope and Concept
 - Identify problem, alternatives, recommended solution and project goals
- Feasibility
 - Identify and conduct studies, analysis, cost estimates, resource needs, landowner issues
- Acquisition
 - Obtain the necessary property rights to perform the work
- Design and Permitting
 - Address all elements of the project (e.g. geomorphic, constructability)
 - Complete all federal, state and local permitting requirements (e.g. Corps, Environmental Species Act (ESA))
 - Survey
 - Conduct pre- and post-construction (“as-built”) survey
 - AutoCAD
 - Develop design plan set
 - Hydraulic Modeling
 - Conduct pre- and post-project modeling
 - Complete Letter of Map Revision (LOMR) for constructed projects, when/if warranted
 - Ecological
 - Conduct pre- and post-construction monitoring
 - Complete pre-project feasibility studies/analysis
 - Provide project design support
 - Complete biological assessments/evaluations
 - Individual
 - Programmatic
 - Complete Section 7 Endangered Species Act consultation
 - Coordinate or support permitting and permit agency outreach
 - State Environmental Policy Act (SEPA)
 - Complete individual project SEPA
 - Complete programmatic SEPA
 - Geotechnical Engineering Support/Geologist/Geotechnical
 - Provide sediment management monitoring, analysis and modeling
 - Conduct pre- and post-construction monitoring
 - Conduct pre-project feasibility studies/analysis

- Provide project design support
- Engineering (may include Project Management function as well)
 - Lead design engineer for projects
 - Manage construction of projects
 - Obtain resources for projects; make task assignments
 - Track and report project scope, schedule, and budget
 - Develop plan set for construction, or bid documentation support
 - Provide overall project quality assurance and quality control oversight
- Project Management
 - Obtain resources for projects; make task assignments
 - Track and report project scope, schedule, and budget
 - Provide overall project quality assurance and quality control oversight
- Monitoring and Adaptive Management
 - Pre-project baseline information
 - Construction Monitoring
 - Conduct pre- and post-construction monitoring
 - Provide monitoring reports to DDES and other agencies as required

King County Flood Program Comprehensive Financial Plan - 2010 Proposed

5/19/2009

| | 2008 Actual | 2009 Adopted | 2009 Revised | 2010 Projected | 2011 Projected | 2012 Projected | 2013 Projected | 2014 Projected | 2015 Projected |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Beginning Fund Balance | 0 | 8,364,999 | 7,912,392 | 748,522 | 2,718,006 | 2,249,786 | 1,333,067 | 266,454 | 818,887 |
| Revenue | | | | | | | | | |
| Flood District | | | | | | | | | |
| Flood District Levy ¹ | 33,239,735 | 35,234,162 | 34,797,017 | 35,390,332 | 35,925,026 | 36,575,197 | 37,346,597 | 38,134,266 | 38,938,899 |
| Interest Earnings ² | 531,088 | 307,993 | 282,708 | 215,929 | 222,734 | 250,184 | 229,320 | 179,760 | 491,959 |
| Fund Balance from GRFCZD ³ | 209,483 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Miscellaneous Revenue ⁴ | 304,023 | | | | | | | | |
| King County | | | | | | | | | |
| Delinquent River Improvement Fund Levy ⁵ | 566,636 | 45,000 | 45,000 | 15,000 | 10,000 | 5,000 | 2,500 | 0 | 0 |
| Inter-County River Improvement (ICRIF) ⁶ | 67,000 | 67,000 | 67,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 | 50,000 |
| Grants | 1,862,116 | 3,452,929 | 3,452,929 | 1,449,750 | 3,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 |
| Total Revenue | 36,780,082 | 39,107,084 | 38,644,654 | 37,121,011 | 39,707,760 | 39,380,381 | 40,128,417 | 40,864,026 | 41,980,858 |
| Expenditure | | | | | | | | | |
| District Administration ⁷ | (213,732) | (450,000) | (450,000) | (463,500) | (477,405) | (491,727) | (506,479) | (521,673) | (537,324) |
| Operating Expenditures ⁸ | (4,517,110) | (5,884,977) | (6,157,912) | (6,655,135) | (6,709,642) | (7,045,124) | (7,242,387) | (7,445,174) | (7,653,639) |
| Capital Expenditures | | | | | | | | | |
| Snoqualmie River Basin | (2,045,928) | (10,481,295) | (10,673,173) | (9,247,747) | (9,213,908) | (10,085,025) | (6,071,509) | (10,325,563) | (12,854,863) |
| Cedar River Basin | (5,162,800) | (6,503,181) | (6,711,455) | (3,608,380) | (4,143,839) | (5,090,440) | (4,768,923) | (10,297,379) | (10,083,127) |
| Green River Basin | (5,325,430) | (11,956,179) | (11,666,027) | (9,414,727) | (13,771,855) | (11,507,952) | (16,867,731) | (6,613,773) | (2,754,857) |
| White River Basin | (471,101) | (4,363,755) | (4,253,755) | (1,736,882) | (1,760,046) | (1,860,351) | (1,397,317) | (708,375) | (2,651,313) |
| Countywide Miscellaneous ^a | (74,219) | | | | | | | | |
| Countywide Maintenance | (4,705) | 79,033 | 79,033 | (236,124) | (256,781) | (308,962) | (356,024) | (336,228) | (299,321) |
| Subregional Opportunity Fund | | (6,835,235) | (6,835,235) | (3,539,033) | (3,592,503) | (3,657,520) | (3,734,660) | (3,813,427) | (3,893,890) |
| Project Contingency | | 860,000 | 860,000 | | | | | | |
| Flood Emergency Contingency ⁹ | | (135,000) | 0 | (250,000) | (250,000) | (250,000) | (250,000) | (250,000) | (250,000) |
| | (13,084,183) | (39,335,612) | (39,200,612) | (28,032,893) | (32,988,932) | (32,760,250) | (33,446,164) | (32,344,745) | (32,787,371) |
| Total Expenditure | (17,815,025) | (45,670,589) | (45,808,524) | (35,151,528) | (40,175,979) | (40,297,101) | (41,195,030) | (40,311,593) | (40,978,334) |
| Reserves for CIP Carryover | (11,052,665) | | | | | | | | |
| Ending Undesignated Fund Balance | 7,912,392 | 1,801,494 | 748,522 | 2,718,006 | 2,249,786 | 1,333,067 | 266,454 | 818,887 | 1,821,412 |
| <i>Target Fund Balance for Emergency Fund</i> | <i>2,500,000</i> |

Notes

- 1 This reflects the property tax levy forecast by OMB as of March 17, 2009.
- 2 Interest earnings based on average daily cash balances considering the timing of flood levy receipts and transfers to the operating and capital funds. Interest rates provided by King County OMB, February 2009.
- 3 The remaining fund balance for the Green River Flood Control Zone District and other miscellaneous small districts which were dissolved in 2007.
- 4 Includes minor revenues such as state forest proceeds (\$18,590) and leasehold excise tax (\$213,542) in the agency fund and rent from tenants of the Cedar Grove mobile home park (\$72,000) in the capital fund.
- 5 Estimation of delinquent River Improvement Fund Levy receipts based on past agency experience.
- 6 The ICRIF amount is based on the 1914 Inter-County Agreement for improvements to the White River. Fund balance spent down in 2008 and 2009.
- 7 Costs based on contract established under FCD 2008-07 for District executive services, and inflated at 3% in succeeding years.
- 8 The miscellaneous expenditures are primarily interest expense incurred by the fund. The Board of Supervisors has since developed policy to avoid this expense in the future.
- 9 The 2009 amount for the Flood Emergency Contingency was not in the total appropriation approved by the King County Council.