
King County Flood Control Zone District Scope of Services Quarterly Report

April 2008



King County

Department of Natural Resources and Parks
Water and Land Resources Division
King Street Center, KSC-NR-0600
201 South Jackson Street, Suite 600
Seattle, WA 98104
dnr.metrokc.gov/wlr

Alternate Formats Available
206-296-7380 TTY Relay: 711

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**King County Flood Control Zone District
Scope of Services Quarterly Report
First Quarter 2008**

I. Introduction

In April 2007, the King County Flood Control Zone District (KCFCZD) was created through Ordinance No. 15728 to provide a comprehensive and countywide approach to flood protection. The KCFCZD is authorized to adopt a property tax levy to implement an adopted annual budget with both capital projects and programs for enhanced flood protection. On November 13, 2007, the KCFCZD adopted a budget and work program for 2008, and the KCFCZD then entered into an Inter-Local Agreement (ILA) with King County to provide flood protection services to the KCFCZD through resolution FCZD 2007-05. Section 7 of the ILA directs the County to provide a quarterly report regarding services rendered under and compliance with the Annual Scope of Services to the KCFCZD Board of Supervisors within 30 days of the end of the quarter.

As discussed below, District successes during the first quarter include agreements with the US Army Corps of Engineers to repair flood damage from the November 2006 floods, the acquisition of the Cedar Grove Mobile Home Park, and completion of updated floodplain maps for the Lower Green and Middle Green cities in collaboration with the cities of Tukwila, Renton, Kent, and Auburn.

II. Purpose

The purpose of this report is to provide the Board of Supervisors with a status report on the implementation of each element of the District's annual work program. As this is the first quarterly report, any guidance or suggestions from the Board of Supervisors to ensure that future reports are responsive to both the terms of the ILA and the information needs of the Board of Supervisors is appreciated.

III. Scope of Services

The District's work program is comprised of two major components: programmatic activities to identify flood risks, prepare for and respond to flood events, maintain over 500 facilities in the County's flood protection system, and coordinate the FCZD Advisory Board and Basin Technical Committees; and a capital improvement program to rehabilitate flood protection facilities and mitigate structures at high risk of flooding.

a. Capital Improvement Program Implementation

Projects proposed in the KCFCZD's capital program reduce risks to public health, safety, and critical public infrastructure from flooding, erosion, and rapid channel migration. A detailed description of flood hazard management conditions and objectives for each major river system is available in King County's 2006 Flood Hazard Management Plan, which serves as the KCFCZD's Comprehensive Plan. The KCFCZD's capital program fulfills one or more of the following flood hazard management objectives:

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- Repair, rehabilitate, and improve flood facility protection through major commercial, industrial and residential areas;
 - Reduce hazards by removing flood, erosion, and landslide prone residential structures;
 - Improve flood water conveyance and capacity; and
 - Provide safe access to homes and businesses by protecting key transportation routes.

The District's 2008 capital program includes 55 capital projects, a significant increase from the 2-3 projects per year undertaken by the River and Floodplain Management Unit before the District was established. The 2008 project list included as Attachment A includes the following activities:

- Immediate flood damage repair (29)
- Levee rehabilitation and reconstruction (10)
- Acquisitions to reduce flood risk (9)
- Elevations to minimize flood risk (4)
- Technical studies (3)

A major focus of capital program implementation during the first quarter of 2008 has been coordination and negotiations with landowners to obtain or confirm easements and rights of way necessary for construction and access. Project scoping, design, and permitting have also been a major focus of work in preparation for the summer construction window.

As described in the recent KCFCZD Capital Project Implementation Report, a major focus of this year's capital program is repairing flood protection facilities damaged in the November 2006 floods. King County experienced \$33 million in damages to flood protection facilities as a result of this federally declared disaster. A major achievement during the first quarter is the completion of Cooperative Agreements with the Army Corps of Engineers through the PL 84-99 Emergency Assistance Program to leverage approximately \$10 million in federal funding for flood damage repairs. The partnership with the Army Corps of Engineers will leverage federal funds to repair 10 flood protection facilities damaged in the November 2006 floods. Repairs conducted through this partnership would be completed by the Army Corps with a 20 percent local match from the KCFCZD for up to 8 non-federal levee repairs and 100 percent federal funding for the two federal levee projects (the Tukwila and Horseshoe Bend 205 projects). Participation in federal cost shares for five additional projects has been withdrawn due to Army Corps of Engineers maintenance standards for native vegetation removal; however all five of these projects are low cost (\$100,000 or less per project and a total cost of \$390,000) and there is adequate in-house King County capacity to complete design and construction in 2008. During the first quarter of 2008 King County staff have worked with the Corps engineering staff to review and comment on project designs, and have also worked with Corps real estate staff to comply with the Corps' real estate guidelines access and construction easements before proceeding with Cooperative Agreements.

Another major achievement of the capital program during the first quarter is the successful negotiation and acquisition of the Cedar Grove Mobile Home Park. This project confers significant flood risk reduction benefits while also supporting public health, affordable housing, and habitat objectives. The acquisition of the Cedar Grove Mobile Home Park will remove 52 residential structures from an area that has experienced extensive and frequent flooding, and includes relocation of displaced residents to housing that is equal or superior to their existing residence, and in a safer location. An open house was held with over 130 residents of the mobile home park to provide information and answer questions about the relocation process and financial support available to residents. The open house was very positive; questions and comments focused on the process of relocation rather than the need for the mobile home park buyout. Relocation assistance available to residents include rent supplements or home down payment sufficient to move them into fair and decent housing appropriate to their family size, relocation counseling and assistance, and moving expenses. The exact amount of the payout to each resident is determined by a formula laid out in the federal standards of the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

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

The District's work program includes 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.

During the first quarter of 2008 King County participated in the 2008 *SoundShake* Functional Catastrophic Regional Earthquake Exercise with the Washington State Emergency Management Division, Snohomish County, and the cities of Seattle and Bellevue. This exercise simulated a 6.7 magnitude earthquake on the Seattle fault, with simulated impacts to transportation, lifelines, and buildings. The purpose of the exercise was to test regional communications, emergency operations, public information dissemination, impact reporting and analysis, and resource allocation, and report on lessons learned and recommended improvements to improve regional response to an actual earthquake event. As part of *SoundShake*, King County tested a new web-enabled crisis information management system (WebEOC) to provide secure real-time information sharing to help managers and emergency communications center representatives make sound decisions quickly. The final *SoundShake* report is due in April 2008.

c. Flood Hazard Studies, Mapping, and Technical Services Program

The purpose of this work program element is to 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.

During the first quarter of 2008 flood mapping activities focused on responding to preliminary floodplain mapping from the Federal Emergency Management Agency (FEMA). FEMA's maps are used to identify flood hazard risk areas, and are the basis for determining flood insurance

rates for property owners within these hazard areas. Due to concerns about the technical quality of the information used by FEMA to generate these Preliminary Digital Flood Insurance Rate Maps along the Green River, King County obtained funding from the Department of Ecology and partnered with the cities of Auburn, Tukwila, Kent, and Renton to generate a new floodplain analysis and submit this information to FEMA as an appeal of the preliminary maps. Separate letters of appeal, which cite the new flood analyses as the basis for the appeal, were directly transmitted to FEMA Region X by each of the four affected cities. King County also submitted an appeal for FEMA's proposed maps of the Middle Green River. Under King County Code, the results of the new analyses will be used as best available flood hazard data in the review of land-use proposals. Overall, the new study results show a reduced extent of valley flooding with more shallow depths except for an area within the City of Kent (Horseshoe Bend area), slightly reduced floodway area in Mill Creek (Auburn) and Mullen Slough (Kent), and additional floodway area in Kent and Renton (Springbrook Creek).

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

Through this work program element, the District participates in planning and regulatory processes to ensure coordination between 2006 Flood Plan recommendations and the King County Comprehensive Plan, King County Regional Multi-Hazard Mitigation Plan, and planning efforts by other jurisdictions. A major element of King County's floodplain planning effort is participation in the National Flood Insurance Program's Community Rating System, or CRS. Through CRS, FEMA recognizes communities that go beyond the federal government's minimum requirements for floodplain management. In 2007 King County was upgraded from a Class 3 to a Class 2 community, and is the highest rated county in the United States. As a result of this rating, flood insurance policy holders save 40 percent overall on annual flood insurance premium costs. Other work program elements include mitigation of floodprone repetitive loss structures, public outreach activities, and grant preparation and management.

During the first quarter of 2008, King County staff recommended minor technical changes to King County Comprehensive Plan policies that were included in the update transmitted to the King County Council on March 1, 2008. The Comprehensive Plan transmittal package included flood code amendments that would increase the freeboard standard from one-foot to three-foot above base flood elevation, add code provisions to implement an existing flood plan policy on gravel removal, provide more flexibility related to the depth and velocity standards in the code, and other non-substantive minor amendments. In addition, staff helped draft the flood hazard related components of the Shoreline Management Plan update and code amendments, which are expected to be transmitted to the King County Council late in 2008 for review and action in 2009. Finally, staff drafted a package of code amendments to implement recommendations identified by the Farm and Flood Task Force that was established in 2007 to assess the impacts of flooding on the viability of agriculture in the Snoqualmie Valley. These agricultural-related flood regulations are expected to be transmitted to the King County Council by the end of April 2008.

King County staff currently manage sixteen different grants and partnerships from a variety of sources, including FEMA, the Washington State Department of Ecology, Army Corps of Engineers, the Conservation Futures Trust, and the Washington State Recreation and

Conservation Office. Seven of these grants support the floodplain buyouts in and around the Cedar Grove Mobile Home Park, leading to an overall leveraging of over two dollars for each dollar contributed by the District to flood hazard reduction in this area of the Cedar River. King County was awarded a grant for \$500,250 from the Flood Mitigation Assistance Program in 2007 to elevate nine structures in the floodplain of the upper and lower Snoqualmie River. During this quarter, one home elevation is nearing completion and one other property has an issued building permit and construction will begin shortly. Permits for two properties, one home and one historic barn, are under review by King County and two other property owners will be submitting their building permit applications for review soon. Of the nine properties covered by this grant, two property owners have put their homes on the market and are hoping the new buyers will want to participate in the grant. Finally, one property owner has expressed concern that they cannot pay any portion of the costs and may not utilize the available grant funding approved for that property.

King County also has three pending grant applications, and the Washington State Emergency Management Division has recommended that King County's application for a Hazard Mitigation Grant under presidential declaration DR-1671 be fully funded. This grant request for \$763,845 would provide funding to purchase three properties located within flood and channel migration zones on the Raging River. King County expects to hear shortly if FEMA will award this grant to the County. The Emergency Management Division has also selected King County to submit two additional FEMA grants for \$1.5 million each through the Hazard Mitigation Grant Program.

e. King County Flood Control Zone District Implementation

King County staff have also organized and facilitated inter-jurisdictional meetings of the four Basin Technical Committees and prepared for the April 4 meeting of the KCFCZD Advisory Committee. This preparation included significant outreach to cities for input on the proposed Subregional Opportunity Fund, and led to unanimous support for a proportional allocation of funds based on the jurisdiction's contribution to the District's revenues, and unanimous support for granting jurisdictions flexibility in determining how to spend Opportunity Funds consistent with Revised Code of Washington 86.15.

This work program element includes staff support for capital project implementation program described in section III (a) of this report. This includes coordination with other King County agencies such as the Roads Services Division to construct several of the capital projects in the summer of 2008.

At the request of the King County Council, staff also generated the "Report Addressing Public Safety in the Placement of Large Wood in King County Waterways" transmitted in March 2008. King County staff convened a stakeholder group of recreational boaters, conservation organizations, and agency staff to review and comment on procedural standards and design guidelines for the placement of large wood in waterways. Presentations on the recommendations were made to several interested stakeholder groups such as the WRIA Forums and the Cedar River Council. This report is expected to be presented to the King County Council Growth Management and Natural Resources Committee in June of 2008.

f. Resource Management, Annual Maintenance, and Facility Assessment Program

King County staff are conducting planning work to support capital project construction activities during the summer of 2008. This includes scheduling crews and obtaining materials for vegetation, irrigation, and the non-structural elements of flood facility site restoration.

This work program element includes coordination of facility and property maintenance for the District's 500 flood protection facilities covering 119 linear miles, as well as approximately 430 acres of land acquired for flood mitigation purposes.

Major activities during the first quarter of 2008 include improvements to the Black River Pump Station. The Black River Pump Station was built in 1972 just upstream from the confluence of the Black and Duwamish Rivers, to address backwater flooding along Springbrook Creek. The Black River Pump Station is a critical part of the overall flood protection infrastructure for the lower Green River valley. There has been little structural or capital improvement during its three decades of service, and significant repairs and upgrades are needed to ensure long-term operability of the pump station. King County has assessed the status of the facility and are developing a proposal to carry out significant improvements to the diesel pumps, the diesel fuel storage and containment area, and the pump house to achieve compliance with applicable codes and regulations, and to improve operational efficiency.

In addition to pump station capacity improvements, King County staff have also completed sediment sampling in the forebay of the Black River Pump Station in preparation for a pilot sediment removal project. The sampling was needed to determine removal, handling and disposal needs for sediment that has accumulated behind the County-operated dam since the early 1980's when the channel upstream of the dam was enlarged. This sediment has reached a point at which it threatens the operation of the pump that handles the baseflow from Springbrook Creek and other local drainage system. As sediment continues to accumulate, it will also reduce the flood storage capacity of the forebay. The proposed pilot project will remove approximately 1,500 cubic yards of sediment immediately adjacent to the primary pump inlet. Information gained through the pilot project will be used to help develop a long-term sediment management program for the channel. The Black River Pump Station is located in the Black River Riparian Forest which is home to one of the largest great blue heron rookeries in the region, as well as other wildlife species which use the open water habitat in the pump station forebay.

g. Program Management and Supervision; Finance, Budget and General Administration

This element of the work program includes supervisory, budgeting, and administrative services for the District. Major activities during the first quarter include hiring processes for several positions, including budget and finance and supervising engineer positions. Additional activities include grant billing and financial management for sixteen active grants, and the development of a capital project tracking and accounting database system. We are in receipt of a letter dated March 25, 2008 from the Clerk to the Board of Supervisors regarding invoices and accounting, and will be meeting with the Clerk and King County Council staff to discuss the appropriate level of detail for monthly invoices.

**King County Flood Control Zone District Scope of Services Quarterly Report
– List of Attachments**

Attachment A: King County Flood Control Zone District 2008 CIP and Flood Damage
Repair Projects

Attachment B: Summary of Capital and Operating Expenditures