King County Flood Control Zone District Scope of Services Quarterly Report

July 2008

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King County Flood Control Zone District
Scope of Services Quarterly Report
Second 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 compliant with, the Annual Scope of Services to the KCFCZD Board of Supervisors within 30 days of the end of the quarter.

As discussed below, KCFCZD successes during the second quarter include completion of four flood damage repairs to flood facilities damaged during the November 2006 floods, design and permitting of high-priority flood repairs in partnership with the US Army Corps of Engineers (Corps) for construction during the third quarter, and the acquisition of the Cedar Grove Mobile Home Park.

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 KCFCZD's annual work program. Any guidance or suggestions from the Board of Supervisors to ensure that this and 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 KCFCZD'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 KCFCZD 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 the 2006 King County 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:

- 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 KCFCZD'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 KCFCZD was established. The 2008 project list included as Attachment A includes the following activities:

- Immediate flood damage repair
- Levee rehabilitation and reconstruction
- Acquisitions to reduce flood risk
- Elevations to minimize flood risk
- Technical studies

A major focus of capital program implementation during the second quarter of 2008 was coordination with landowners to obtain the necessary easements, as well as completion of project designs and submittal of permit applications, in preparation for the summer construction window.

Specifically, King County completed four flood damage repairs in the Snoqualmie Basin during the second quarter. One of these repairs was on the Lower Snoqualmie near Fall City (the Aldair levee), and three were on the Raging River (the Arruda, Bryce's Bump, and Waring projects).

During the first quarter, King County entered into cooperative agreements with the Corps through the PL 84-99 Emergency Assistance Program to repair ten flood protection facilities in the Green and Snoqualmie River basins. This included repairs to two federal levees along the Green River slated for full funding by the Corps. Based on bids received by the Corps from contractors during the second quarter, project costs have increased from preliminary estimates, and the Corps does not currently have sufficient funding to complete repairs at one federal levee (the Horseshoe Bend 205). The total cost of the remaining nine projects is $21.2 million, with $17.7 million (83 percent) funded by the Corps and a local KCFCZD match of $3.58 million (17 percent).

While flood damage repairs are the primary focus of capital project work, staff have also initiated designs on several high-priority levee rehabilitations throughout the county. Two levee rehabilitations and levee setbacks are scheduled for construction this summer (the Cedar Rapids levee on the Cedar River and Fenster Levee on the Green River), pending approval of permit applications submitted during the second quarter. Staff have also made progress on project designs for multi-year projects scheduled for construction in 2009. For two projects (the South Fork Snoqualmie Levee System Improvements and the Kimball Creek Drainage Improvements), small-scale repair work has been incorporated into the geotechnical studies and other site investigations. In the case of Kimball Creek, this creative application of a short-term fix while the longer-term solution is under development has resulted in a letter of appreciation from local residents (see Attachment C).

The capital program also includes acquisition of properties at high risk of flooding. A significant achievement during the second quarter was completion of the acquisition of the Cedar Grove Mobile Home Park. The acquisition closed on June 27, and staff have also retained a consulting firm to facilitate the relocation of residents to equal or superior housing in a safer location. Relocation assistance available to residents includes rent supplements or home down payments 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.

Finally, the owners of the residential structures proposed for buyout and removal at the confluence of the Miller River and the South Fork Skykomish have taken their homes off the market. However, the urgency of buyouts proposed in the Timberlane Village area has increased as a result of high flows during May that eroded the riverbank near residential homes. Three adjacent homeowners have expressed interest in a buyout. Acquisitions staff are currently negotiating with the homeowners.

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

The KCFCZD'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. During the second quarter, flood preparedness activities focused on documenting lessons learned during the SoundShake exercise and implementing improvements to communications protocols such as redundant communications capability with the Corps. Staff are also developing additional flood warning capabilities to enable text messaging of contact lists during flood events. This capability is scheduled to be launched by the start of flood season in October, and will reduce the time necessary to contact agency officials and the general public during flood events.

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 second quarter of 2008, flood mapping activities continued to focus on responding to preliminary floodplain mapping from the Federal Emergency Management Agency (FEMA), following the submittal of an appeal of FEMA's draft floodplain maps for the Lower Green River during the first quarter. These 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 Washington State Department of Ecology (DOE) 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. FEMA is scheduled to respond to the appeal and issue a revised preliminary flood map by June 2009. At this time FEMA has not hired a contractor to review appeals, which may lead to a delay in this schedule. Under King County Code, the results of the new analyses will continue to be used as best available flood hazard data in the review of land-use proposals. Other mapping activities in the second quarter included the development of preliminary technical products for the White River floodplain maps; draft maps are anticipated for review by jurisdictional staff during the third quarter. In addition, staff are developing a scope of work to update floodplain maps for the Sammamish River and initiate a coastal flood hazard study during 2009.

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

Through this work program element, the KCFCZD 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.

The King County Council adopted 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 amendments change the way compensatory storage is determined, establish a compensatory storage bank, allow wet floodproofing for nonresidential agricultural buildings, and allow farm pads and nonresidential agricultural buildings in the FEMA floodway within the Agricultural Product Districts.

King County staff currently manages sixteen different grants and partnerships from a variety of sources, including FEMA, the DOE, Real Estate Excise Tax, the Corps, the Conservation Futures Trust, and the Washington State Recreation and Conservation Office. During the second quarter, staff prepared and submitted two additional FEMA grant applications under the Hazard Mitigation Grant Program (HMGP). Funding for this program is made available after Presidentially-declared disasters, and this grant cycle is in response to the December 2007

disaster (DR-1734). Grant development included public outreach through a mailing to all unmitigated FEMA repetitive loss property owners, as well as residents of repetitive loss areas in the Kimball Creek and Timberlane Village neighborhoods. Two public workshops were held to provide interested residents with more information about the flooding problems, mitigation options, and the grant opportunity. The meetings were held in the Town of Skykomish and in the City of Snoqualmie. Snoqualmie is also preparing an HMGP application, and outreach efforts were coordinated with the City in the Kimball Creek – Snoqualmie area. These meetings were advertised in three newspapers, as well as the King County website, and were attended by 43 interested citizens.

As a result of this outreach effort, 50 homeowners expressed interest in a buyout or elevation. Based on the benefit-cost analysis required by FEMA and further discussions with homeowners, three properties were proposed for acquisition and 15 properties were proposed for elevation. King County submitted two proposals through the HMGP program: one grant for acquisition of floodprone properties and one grant to elevate at-risk structures. The acquisition grant is for $1.31 million, and would leverage seven federal and state dollars for each KCFCZD dollar. The three properties (one each along the Cedar River, South Fork Skykomish River, and Kimball Creek) are all repetitive loss properties that are at risk from deep, high velocity flood flows. The second proposal would elevate 14 homes and one commercial structure (the Carnation Golf Course clubhouse). Four of the structures are located along the Snoqualmie River Road in the lower Snoqualmie River valley, and eleven structures are located in the Kimball Creek area of the Upper Snoqualmie River valley. The total cost of this proposal is $1.45 million, with 87.5 percent (about $1.27 million) provided by federal and state funds, and a local share of 12.5 percent funded by the homeowner on a reimbursable basis. As the local match for elevations is provided by the homeowner, there is significant leveraging of KCFCZD resources used for grant development and management. The two HMGP grants were submitted to the State of Washington on June 30, with decisions expected from FEMA in November 2009 at the earliest. During the third quarter staff will be initiating two additional FEMA grants that are due in December 2008.

King County has two other pending HMGP grant application that resulted from the November 2006 floods (DR-1671). The Washington State Emergency Management Division has recommended that King County's application be fully funded. One grant request for $763,845 would provide funding to purchase three properties located within flood and channel migration zones on the Raging River. The second request for $897,648 would provide funding to elevate nine homes in the North Bend area. King County expects to hear shortly if FEMA will award these grants to the County. The evaluation and award process has been delayed, as FEMA resources have been diverted due to flooding in other parts of the U.S.

e. King County Flood Control Zone District Implementation

King County staff have organized and facilitated inter-jurisdictional meetings of the four Basin Technical Committees, as well as three meetings of the KCFCZD Advisory Committee (April 4, May 8, and May 28). As requested by the Board of Supervisors, the Advisory Committee used these meetings to discuss and make recommendations on the Subregional Opportunity Fund, the 2009 work program, and the 2009 budget. Staff offered to schedule an additional meeting if Advisory Committee members felt there was a need for more time to review and discuss the 2009 budget, but the members agreed that sufficient discussion and review had occurred. The

Advisory Committee's recommendations will be included in the annual report to the Board, due August 31. The next meeting of the Advisory Committee will be in October to review progress implementing the 2008 work program, with a focus on capital construction and the completion of flood damage repairs.

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 KCFCZD'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 second quarter of 2008 included 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. King County staff completed sediment sampling in the forebay of the Black River Pump Station during the first quarter, and permit applications have been submitted in preparation for a pilot sediment removal project scheduled for August, 2008. The sampling was needed to determine removal, handling and disposal needs for sediment that has accumulated behind the County-operated dam since the early 1980s 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 systems. 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. In addition, staff are working with the Wastewater Treatment Division in the Department of Natural Resources and Parks to evaluate the need to replace fish screens at the pump station later this year.

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

This element of the work program includes supervisory, budgeting, and administrative services for the KCFCZD. Major activities during the second quarter included hiring processes for several positions, including a budget and finance officer and two program manager positions for the Snoqualmie/South Fork Skykomish and Green/White River basins. Additional activities include grant billing and financial management for sixteen active grants, and the development of a capital project tracking and accounting database system.

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: King County Flood Control Zone District Summary of Capital and Operating Expenditures

Attachment C: Letter of Appreciation Regarding Improvements to Kimball Creek