

2012 KING COUNTY FLOOD HAZARD MANAGEMENT PLAN UPDATE

June 2012

TOPIC:

Capital project prioritization, sequencing approach, and eligibility criteria

STATEMENT OF ISSUE:

The current capital project prioritization process evaluates the consequence, urgency, and severity of flooding and channel migration risks, and sequences project implementation based on factors such as readiness, partnerships, external funding opportunity, and legal responsibility. The fundamental purpose of these criteria is to ensure that limited funding is targeted at the highest priority flood and channel migration risks, and that the proposed solutions are consistent with the goals, objectives, and guiding principles in the Plan. With the benefit of the experience applying these criteria over five budget cycles and multiple mid-year revisions, the criteria and scoring system should be assessed with the following questions in mind:

- Do the prioritization scoring criteria adequately define eligible and ineligible projects?
 - Do the criteria help decision-makers focus on long-term solutions and ‘getting ahead of the next flood’ rather than ‘reacting to the last flood’?
 - Do the prioritization criteria clearly identify when flood damage repairs are necessary to protect public safety and prevent a small problem from becoming larger and more expensive to fix?
-

BACKGROUND:

The proposed capital program continues to focus on high priority flood risk reduction needs through rehabilitation of flood facilities and the acquisition and removal of floodprone structures throughout King County. New projects proposed for the District’s capital program are responsive to flood events, in the form of either high priority repairs or new projects that address flood hazards identified during the flood or through updated flood hazard maps. The addition of new projects does not result in the removal of any project adopted in the 6-year project list, although it may result in delays to other projects.

The *2006 King County Flood Hazard Management Plan* (FHMP) describes flood risks in King County; outlines a series of goals, objectives, and policies for managing these risks; and recommends basin-by-basin actions for reducing risks throughout the County. By adopting this planning document, the District’s governing body—the Board of Supervisors—agreed with the suite of flood risk policies and strategies contained in the plan, and it follows that capital projects funded by the District should be implemented in accordance with FHMP guidance. The FHMP is considered under the RCW to be the comprehensive plan for the King County Flood Control District (KCFCD).

Proposed projects are reviewed and prioritized by the Basin Technical Committees, along with a discussion of project sequencing over the 6-year Capital Improvement Program (CIP). Project prioritization and sequencing is guided by the policies contained in the District’s adopted comprehensive plan (the 2006 FHMP). Projects are reviewed and scored against flood risk reduction factors (consequence, severity, and urgency) to prioritize projects across the county;

implementation factors such as readiness and leveraging are then evaluated to determine how to sequence high-priority projects over the 6-year CIP timeframe. By evaluating flood risk reduction and implementation factors, appropriate strategies can be developed to ensure that high priority projects are implemented and any implementation constraints are identified and addressed.

The goals of the capital project prioritization and evaluation process are as follows:

- Identify flood risk reduction projects on an annual basis that would be eligible for potential inclusion and prioritization in the KCFCD's 6-year CIP
- Provide an objective and transparent method for prioritizing and sequencing flood risk reduction projects throughout King County
- Provide an objective method for evaluating project eligibility and ineligibility
- Familiarize other agencies within the project evaluation criteria to be considered by the District when identifying and prioritizing capital projects for inclusion in the KCFCD's 6-year CIP
- Provide a mechanism for transparently redistributing funds in the KCFCD's 6-year CIP in response to unanticipated events which may impact the 6-year CIP

Current project prioritization policies that form the foundation for project identification and evaluation are described in Chapter 2 of the 2006 FHMP. Key policies, provided as supplementary material, include: Policy G-2: Flood Risks; Policy G-3: Comprehensive River and Flood Hazard Management; Policy G-9: Multi-Objective Management; Policy G-10: Protecting Natural Functions and Values; PROJ-1: Prioritizing Flood Hazard Risks; and Policy PROJ-6: Flood Protection Facility Design and Maintenance Objectives. These policies outline the criteria that King County should use in prioritizing projects to address flood and channel migration risks; in particular, G-2 and PROJ-1 directly address prioritization approaches to evaluating project proposals.

Projects are evaluated based on these key policies and against a set of criteria approved by the District's Board, which falls into two categories – flood risk and implementation opportunity. Each criterion is numerically scored. The prioritization scoring system provides a relative comparison of capital projects to guide decision-makers; definitive quantitative thresholds between prioritization categories are neither intended nor implied.

Expenditure of public funds to reduce flood hazards may be more appropriate for some types of projects than others. Capital projects funded by the KCFCD should be implemented in accordance with FHMP guidance; policy should be strengthened and brought into alignment with best practices to better reflect how the prioritization and eligibility criteria have evolved over the past five years of project implementation. Ensuring consistency with the FHMP, and appropriately directing public funding toward the most relevant and highest priority projects that provide long-term solutions aimed at reducing flood hazard risks will enable the most effective projects to be implemented.

In the end, the District needs a transparent and consistent way to measure the effectiveness of a proposed solution to a given flooding problem, and incorporating the FHMP's policies in the project evaluation process presents an opportunity to accomplish this objective. This paper does

not intend to recommend one approach over another, yet the hope is that it generates discussion that leads to an improved process.

Project Eligibility

The District's capital project evaluation criteria were developed with the numerous FHMP project proposals in mind, and as a result, the present evaluation process assumes project proposals are consistent with FHMP policies. However, the District has received project proposals from individual jurisdictions within King County, and for these proposals, there is no clear mechanism in place to determine whether a new project proposal meets FHMP policies. For this reason, the criteria and evaluation process may require refinement to ensure that approved projects, regardless of their origin, are consistent with the adopted policies in the FHMP and meet minimum eligibility requirements.

Selecting the Most Appropriate Solution to a Problem

The current system works well to identify the problems, but lacks an explicit step in determining whether a proposed project is the best solution for the problem. The flood risk criteria are focused on the severity, consequences, and urgency of the problem but do not evaluate how effectively the proposed solution addresses the problem. This is a deficiency in the present system that does not allow for a clear and transparent assessment of whether proposed projects are consistent with FHMP goals, objectives, and policies. Further, an evaluation of a proposed project design should be conducted when considering the suitability of a solution. The proposed implementation criteria are straight-forward and complement the criteria focused on addressing the flood risk. These implementation criteria address the project's effectiveness in addressing the problem, the benefit of implementing the project and the readiness of a proposed solution to a flood risk problem.

POLICY CONSIDERATIONS:

Currently, broad policy is in place regarding prioritization and sequencing approaches to project implementation. Modifying the project evaluation process can help to ensure that all projects put forth for consideration by the District are consistent with the fundamental tenets of the District's FHMP. In order to keep focused, and target spending toward the most effective projects, the following policy changes are proposed for consideration.

1. While the 2006 FHMP includes policy regarding project prioritization and sequencing, it does not include explicit eligibility criteria for project funding. Should the FHMP update better define eligibility and ineligibility requirements for project funding and implementation through enhancement of FHMP policy to include an eligibility filter (a project, to the degree possible, must be consistent with the elements of this policy in order to be evaluated or prioritized)? Projects that do not meet the elements of the policy or a specified subset of the elements do not receive further consideration. Examples of minimum eligibility criteria could include:
 - Jurisdictions submitting the project must have adopted a planning document that includes capital projects intended to address flood hazard risks (e.g., comprehensive

stormwater plan, basin plan, coastal zone management plan, flood hazard reduction plan), AND

- Jurisdiction must be in good standing with the National Flood Insurance Program, AND
- Project must be located in a mapped floodplain, special flood hazard area (SFHA), channel migration zone, or reduce flood and channel migration risks in these area.

PRO: Using the Plan to define eligibility criteria eliminates ambiguity about whether a project is consistent with the District's goals, objectives, and guiding principles by making very explicit the link between a project proposal and the adopted FHMP policies.

CON: This option has the potential to generate conflict between the District and individual jurisdictions should a proposed project fail to move to the evaluation and prioritization stage.

2. Should the Plan update provide enhanced criteria that clearly identify when flood damage repairs are necessary? The policy change would enable the District to:
 - a. Evaluate repair projects against the broader strategy to ensure choosing the most appropriate projects that adequately address the problem and prepare for the next flood rather than reacting to the last flood.
 - b. Ensure consistency with strategies for long-term maintenance and cost reduction. If a project is not consistent with the strategy, an extra level of review would be needed.
 - c. Evaluate effectiveness of the solution as part of the prioritization scheme.

PRO: Defining criteria around when to repair flood facilities would help decision-makers focus on longer-term solutions and getting ahead of the flood rather than reacting to the last flood event?

CON: Flood damages are unpredictable and highly variable. If criteria and requirements are too stringent it may limit our ability to respond to unanticipated conditions that require action to protect public safety.

3. The current capital project prioritization process evaluates the consequence, urgency, and severity of flooding and channel migration risks, and sequences project implementation based on factors such as readiness, legal responsibility and opportunity. Should the FHMP update strengthen the project prioritization and sequencing process criteria so that all project proposals are evaluated and screened against pertinent FHMP policies, receiving points if specified plan policy components are met and to better reflect the current annual CIP criteria which have evolved over the past four years since the KCFCFCD was established?

PRO: All project proposals are evaluated in the same fashion against a standard set of criteria, thus allowing the scoring to determine which projects move forward.

ADDITIONAL RESOURCES:

Relevant Policies and Recommendations from the 2006 FHMP:

<http://your.kingcounty.gov/dnrp/library/water-and-land/flooding/0701-flood-hazard-mgt-plan/fhmp2006-chapter-2.pdf>

Current King County Flood Control District Project Prioritization Criteria:

<http://your.kingcounty.gov/dnrp/wlr/flood/flood-control-zone-district/advisory-committee-docs/pdf/070720-meeting/13-prioritization-criteria-regional.pdf>
