



# KING COUNTY

1200 King County Courthouse  
516 Third Avenue  
Seattle, WA 98104

## Signature Report

### FCD Motion FCD21-03

**Proposed No.** FCD21-03.1

**Sponsors**

1           A MOTION relating to the Lower Green River Corridor  
 2           Flood Hazard Management Plan; updating the planning  
 3           process for a proposal that will result in the Lower Green  
 4           River Corridor Flood Hazard Management Plan;  
 5           confirming the goals and purposes of the proposal; and  
 6           redefining alternative means of accomplishing the goals  
 7           and purposes of the proposal; and requesting the District  
 8           responsible official to continue State Environmental Policy  
 9           Act review of the proposal.

10           WHEREAS, the King County Flood Control District ("the District") through  
 11           Resolution FCD2016-05 directed the District executive director to prepare a work plan  
 12           and budget for a Lower Green River Corridor Plan ("the LGRCP") and to issue a request  
 13           for proposal for a consultant to prepare a State Environmental Policy Act ("SEPA")  
 14           programmatic environmental impact statement ("PEIS") for the LGRCP, and

15           WHEREAS, Motion FCD18-01 initiated a PEIS for the LGRCP, described the  
 16           goals and purposes of the proposal, described alternatives, and requested the SEPA  
 17           responsible official begin SEPA review of the proposal, and

18           WHEREAS, the LGRCP is now referred to as the Lower Green River Flood  
 19           Hazard Management Plan ("the LGRCFHMP"), and

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20 WHEREAS, the Lower Green River study area includes flood risk reduction  
21 facilities in multiple jurisdictional ownerships and is surrounded by mixed land uses,  
22 including agricultural, commercial, industrial, open space, recreational and residential,  
23 and

24 WHEREAS, the Lower Green River study area is the largest warehouse and  
25 distribution hub in the entire Northwest, second largest warehouse district on the west  
26 coast, and third largest in the nation, supplying the region with groceries, food service  
27 products, gasoline, medical supplies and other critical provisions and includes many of  
28 the region's major employers, and

29 WHEREAS, flood risk modeling conducted by the District in 2014 finds that  
30 levee overtopping or breaching resulting in floodplain inundation of one to 10 feet or  
31 more put at risk, people, structures, infrastructure and economic activity including  
32 approximately 22,000 people living in the floodplain and approximately 9,000  
33 residential, commercial and public facilities, based on 2014 data, and

34 WHEREAS, expected annual damages and economic impacts due to flooding  
35 were estimated in 2014 to be \$47.1 million over a 50-year period and the present value of  
36 those impacts were estimated to be \$1.1 billion, and

37 WHEREAS, the LGRCFHMP is a follow-up plan to the System-Wide  
38 Improvement Framework ("the SWIF") submitted by the District to the United States Army  
39 Corps of Engineers ("the USACE") in March 2019 and accepted by the USACE in  
40 September 2019, and

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41 WHEREAS, the SWIF maintains eligibility for flood damage repairs under the  
42 federal PL 84-99 Program, but does not include projects to extend flood protection and  
43 does not use an integrated floodplain management approach, and

44 WHEREAS, Resolution FCD2016-05 determined the broader objectives  
45 supported by stakeholders who participated as SWIF advisors can best be achieved  
46 through a long-range planning process that includes a SEPA PEIS analyzing cumulative  
47 impacts and reasonable alternatives for accomplishing the multiple objectives of flood  
48 protection; equity and social justice; environmental justice; habitat protection and salmon  
49 recovery; resilient communities and ecosystems; productive and viable agriculture;  
50 sustainable development; jobs and sustainable livelihoods; open space conservation;  
51 sustainable and clean water; and recreation and other opportunities to connect people  
52 with nature, and other issues to be defined through a PEIS scoping process, and

53 WHEREAS, Resolution FCD2014-09.1 adopted provisional levels of protection  
54 for 43.7 shoreline miles of the Lower Green River as described in the map exhibit dated,  
55 June 12, 2014, attached to Resolution FCD2014-09.1, and

56 WHEREAS, Motion FCD20-07.1 declared the District's commitment to  
57 integrated floodplain management and multi-benefit projects, and

58 WHEREAS, the District desires to continue the planning process for a proposal  
59 resulting in the LGRCFHMP, by adopting the goals and purposes of the proposal, and

60 WHEREAS, the District through Resolution FCD2016-04 adopted SEPA  
61 procedures designating the District executive director as the District's SEPA responsible  
62 official ("the SEPA Official"), and

63 WHEREAS, the SEPA Official issued a legal notice of the Determination of  
64 Significance on November 28, 2018, commencing the scoping period inviting tribes,  
65 agencies and members of the public to comment on the scope of the PEIS, and

66 WHEREAS, the SEPA Official extended the scoping period until May 1, 2019, to  
67 allow 154 days for tribes, agencies and members of the public to comment on the scope  
68 of the PEIS, and

69 WHEREAS, the three alternatives carried through the initial scoping process were  
70 developed before adoption of Motion FCD20-07.1, and

71 WHEREAS, pursuant to Motion FCD20-07.1 to the extent practicable and within  
72 the authority of the District, the LGRCFHMP will provide flood risk reduction while  
73 balancing the following multi-benefits: equity and social justice; environmental justice;  
74 habitat protection and salmon recovery; resilient communities and ecosystems;  
75 productive and viable agriculture; sustainable development; jobs and sustainable  
76 livelihoods; open space conservation; sustainable and clean water, and recreation and  
77 other opportunities to connect people with nature;

78 NOW THEREFORE BE IT MOVED BY THE BOARD OF SUPERVISORS OF  
79 THE KING COUNTY FLOOD CONTROL ZONE DISTRICT:

80 SECTION 1. The goals and purposes of a proposal that will result in the  
81 LGRCFHMP ("the Proposal") continue to provide an integrated and reasonable long-term  
82 approach to reduce flood-risk within the Lower Green River Corridor while balancing  
83 multiple objectives within the study area, including but not limited to economic vitality  
84 and environmental protection. This integrated approach is intended to protect people,  
85 property and jobs, while reducing conflicts between flood facilities, equity and social

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86 justice, agricultural land use, economic development, habitat restoration, housing,  
87 recreation, salmon recovery, water quality and other issues that will be considered and  
88 analyzed through a SEPA PEIS scoping process.

89        SECTION 2. The SEPA Official is requested re-initiate scoping for the PEIS as  
90 soon as possible to engage in a robust public process regarding the new alternatives  
91 described in Attachment A to this motion.

92        SECTION 3. The alternatives to the Proposal described in Attachment A to this  
93 motion each describe an approach to implementing integrated floodplain management as  
94 part of District actions taken pursuant to the purposes and powers described in chapter  
95 86.15 RCW.

96        The alternatives use several types of facilities or actions to provide protection  
97 from or accommodation of flooding up to the provisional level of protection of 18,800  
98 cfs., plus three feet of freeboard. These facilities and actions are used in different  
99 combinations to create each alternative:

100        A. Flood facility project "type a" are levees or floodwalls with riverward side  
101 slopes of less than 2.5:1. Project footprints would be designed to minimize property  
102 acquisitions while still meeting engineering standards for certification. This facility type  
103 is intended in the most constrained locations where a facility "type b or c" (described  
104 below) would impact existing agricultural land, buildings, parking or traveled roadways.  
105 The approximate footprint of this facility type is no greater than 100 feet from the  
106 ordinary high-water mark to the extent of maintenance access;

107        B. Flood facility project "type b" are levees or floodwalls with riverward side  
108 slopes of 2.5:1 or more that can be planted with vegetation and/or a bench, including

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109 large woody debris, scour protection and enhanced vegetation. This facility type would  
110 likely require more land acquisition or easements than facility "type a" described above.  
111 This facility type is intended in locations where a wider footprint can be accommodated.  
112 The approximate footprint of this facility type is 100 to 150 feet from the ordinary high-  
113 water mark to the extent of maintenance access;

114 C. Flood facility project "type c" are levee or floodwall setbacks providing at  
115 least 150 feet from the ordinary high-water mark and a maximum of riverward side  
116 slopes of 3 to 1. These setbacks often require property acquisitions and possible  
117 relocations in the immediate vicinity but provide flood protection to people and property  
118 in the greater Lower Green River valley. These setbacks provide space for the District to  
119 incorporate habitat benches, side channels, vegetation providing shade, other riparian and  
120 aquatic enhancements, and access to the river for fishing and shoreline enjoyment, into  
121 the facility design. These setbacks often provide opportunity for the District, in  
122 collaboration with the local jurisdiction and other agencies, to provide open space and  
123 passive recreation riverward of the facility, trails on the top of the facilities, and help  
124 provide some relief from urban heat islands; and

125 D. Flood facility project "type d" are physical nonstructural measures such as  
126 home elevations, basement removal with utility addition, flood proofing, berms, ring  
127 levees, farm pads and drainage improvements. The USACE defines these measures as  
128 physical nonstructural measures applied to a structure or its contents that prevent or  
129 provide resistance to damage from flooding. Physical nonstructural measures differ from  
130 structural measures in that they focus on reducing the consequences of flooding instead  
131 of focusing on reducing the probability of flooding.

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132            SECTION 4. The alternatives to the Proposal described in Attachment A to this  
133 motion each apply the District actions described in SECTION 3 of this Motion based on  
134 planning level estimates of where District action is needed to protect people and property  
135 from flood risk.

136            SECTION 5. Possible alternatives to be discussed and analyzed in a PEIS for the  
137 Proposal are described in Attachment A to this motion. The District acknowledges that

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- 138 these alternatives may be modified, changed or replaced during the PEIS scoping process  
139 or preparation of the PEIS.

FCD Motion FCD21-03 was introduced on and passed by the King County Flood Control District on 10/12/2021, by the following vote:

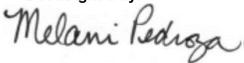
Yes: 9 - Ms. Balducci, Mr. Dembowski, Mr. Dunn, Ms. Kohl-Welles, Ms. Lambert, Mr. McDermott, Mr. Upthegrove, Mr. von Reichbauer and Mr. Zahilay

KING COUNTY FLOOD CONTROL ZONE  
DISTRICT  
KING COUNTY, WASHINGTON

DocuSigned by:  
  
E76CE01F07B14EF...

Dave Upthegrove, Chair

ATTEST:

DocuSigned by:  
  
8DE1BB375AD3422...

Melani Pedroza, Clerk of the District

**Attachments:** A. Lower Green River Corridor Flood Hazard Management Plan Programmatic Environmental Impact Statement (PEIS) Alternatives



**Attachment A** (October 6, 2021)

**Lower Green River Corridor Flood Hazard Management Plan Programmatic  
Environmental Impact Statement (PEIS) Alternatives**

**No Build Scenario**

*This scenario is included to illustrate why flood hazard management is needed on the Lower Green River and the consequences of inaction. The description will include inundation maps and explanations of how the Lower Green River area would be affected by flooding. It will also explain the extent of riparian habitats, recreation, and open space along the river. Because the core mission of the Flood Control District (District) is managing flood hazards and this alternative does not provide flood hazard protection throughout the study area, this scenario will not be evaluated in detail in the PEIS and will not be compared to other scenarios as a potential alternative.*

The District would maintain existing facilities, including PL 84-99 levees, to meet current requirements. Work would continue on facilities currently under construction. Projects included in the current capital improvement program (CIP) that are not under construction would not proceed. Existing flood hazard management facilities would not be modified to provide the provisional 18,800 cubic feet per second (cfs) level of protection, plus three feet of freeboard. No additional flood hazard management actions or related improvements on the Lower Green River would be undertaken.

## **Attachment A**

King County Flood Control District

Lower Green River Corridor Flood Hazard Management Plan Programmatic Environmental Impact Statement  
Alternatives

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### **ALT 1: Project-by-Project Multi-Benefit Implementation**

*This alternative illustrates how the District would provide flood hazard management on the Lower Green River following established policies and practices without guidance of an area-specific Flood Hazard Management Plan. Adoption of a Flood Hazard Management Plan for the Lower Green River is the proposed action for the PEIS. This alternative will be the benchmark for comparing alternatives.*

The District adopted a multi-benefit policy in 2020 (Motion FCD 20-07.1) which would be considered and incorporated to the extent feasible as individual projects are implemented. Flood hazard management projects would be implemented under successive Capital Improvement Plans (CIPs) without guidance from an area-specific Flood Hazard Management Plan for the Lower Green River.

#### **Elements Common To All Alternatives:**

- Actions by the Flood Control District must be related to flood hazard management needs.
- The District would continue to fulfill its duty under Chapter 86.15 RCW to plan, construct, acquire repair, maintain and operate all necessary equipment, facilities, improvements and works to control, conserve and remove flood and storm water as well as take action necessary to protect life and property from flood water damage.
- The District would honor and respect tribal and treaty reserved rights.
- The District would continue to rely on a system of flood facilities that include levees, revetments, and floodwalls to protect people, jobs, and property on the Lower Green River.
- The District would use the provisional 18,800 cfs, plus three feet of freeboard to design and evaluate potential flood hazard management measures.
- The District would maintain enrollment in the US Army Corps of Engineers PL 84-99 program for those facilities that are currently enrolled.
- The District would protect and not isolate housing and neighborhoods with flood hazard management facilities.
- The District would protect housing and community facilities used by historically disadvantaged populations (low-income and people of color).
- The District would prioritize the design and implement multi-benefit floodplain management projects as described in FCD Motion 20-07.1.
- The District would follow the policies included in the adopted County-wide Flood Hazard Management Plan including the policy to ensure that its actions will not have an adverse flooding impact on upstream or downstream property owners.
- The District would continuously study the effects of climate change and use best available science for flood hazard management planning, adaptive management, and facility design.
- The District would design facilities to improve habitat and water quality (e.g., vegetation to provide shading or large woody debris) when practicable.

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Upon identification of a flood hazard management need, additional components of this alternative are:

### **Existing Flood Hazard Management Facilities**

- The District would repair and improve existing PL 84-99 facilities as needed to maintain enrollment in the PL 84-99 program and to provide the provisional 18,800 cfs level of protection, plus three feet of freeboard.
  - The District may relocate PL 84-99 facilities to maintain enrollment in the PL 84-99 program and to meet the provisional 18,800 cfs level of protection, plus three-feet of free-board.
- The District would repair, improve, and extend the length of existing levees that are not enrolled in the PL 84-99 program as needed to provide provisional 18,800 cfs level of protection, plus three feet of freeboard.

### **No Existing Flood Hazard Management Facilities**

- The District would add facilities where needed and as funding is available to provide the provisional 18,800 cfs level of protection, plus three-feet of free-board, for existing and planned development.

### **Multi-Benefit Floodplain Management**

- The District would implement the multi-benefits described in Motion FCD 20-07 on a project-by-project basis.
- The District would design flood hazard management facilities to maintain existing recreation facilities to the extent practicable.
- The District would integrate new passive recreational opportunities in some flood hazard management facilities.
- The District would design flood hazard management facilities to maintain areas of agricultural land and avoid increases in depth and extent of agricultural lands inundation.

### **Acquisitions**

- The District would acquire property on a voluntary basis to the extent practicable.
  - The District may utilize condemnation in order to achieve necessary flood hazard management needs if voluntary approaches to acquisition are not successful.
  - The District would not utilize condemnation solely for environmental improvements or other multi-benefits.
- The District would set flood hazard management facilities as far back from the river channel as practicable with minimal property acquisition and limited effects on buildings, parking and traveled roadways, protected agricultural lands, and active recreation areas (e.g., ballfields, golf courses, and some parks).

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### **ALT 2: Systematic Multi-Benefit Implementation**

*This alternative systematically implements the multiple benefits described in Motion FCD 20-07.1, including habitat protection and fish restoration.*

The District would develop an area-specific Flood Hazard Management Plan for the Lower Green River Corridor in collaboration with Tribes, federal and state agencies, local jurisdictions, and stakeholders. The Plan would establish goals and indicators for managing flood hazards, supporting a safe and healthy environment for communities along the river, protecting and where possible enhancing aquatic and riparian habitats and conditions that support recovery of threatened salmon and other species.

The Plan would describe actions the District would take under its authority and highlight potential partnership opportunities with Tribes, federal and state agencies, local jurisdictions, and stakeholders. The multi-benefits described in Motion FCD 20-07.1 would be systematically advanced in the Plan.

#### **Elements Common To All Alternatives:**

- Actions by the Flood Control District must be related to flood hazard management needs.
- The District would continue to fulfill its duty under Chapter 86.15 RCW to plan, construct, acquire repair, maintain and operate all necessary equipment, facilities, improvements and works to control, conserve and remove flood and storm water as well as take action necessary to protect life and property from flood water damage.
- The District would honor and respect tribal and treaty reserved rights.
- The District would continue to rely on a system of flood facilities that include levees, revetments, and floodwalls to protect people, jobs, and property on the Lower Green River.
- The District would use the provisional 18,800 cfs to design, plus three feet of freeboard, and evaluate potential flood hazard management measures.
- The District would maintain enrollment in the US Army Corps of Engineers PL 84-99 program for those facilities that are currently enrolled.
- The District would protect and not isolate housing and neighborhoods with flood hazard management facilities.
- The District would protect housing and community facilities used by historically disadvantaged populations (low-income and people of color).
- The District would prioritize the design and implement multi-benefit floodplain management projects as described in FCD Motion 20-07.1.
- The District would follow the policies included in the adopted Flood Hazard Management Plan including the policy to ensure that its actions will not have an adverse flooding impact on upstream or downstream property owners.
- The District would continuously study the effects of climate change and use best available science for flood hazard management planning, adaptive management, and facility design.
- The District would design facilities to improve habitat and water quality (e.g., vegetation to provide shading or large woody debris) when practicable.

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Upon identification of a flood hazard management need, additional components of this alternative are:

### **Existing Flood Hazard Management Facilities**

- The District would repair and improve existing PL 84-99 facilities as needed to maintain enrollment in the PL 84-99 program and to provide the provisional 18,800 cfs level of protection, plus three feet of freeboard.
  - The District may relocate PL 84-99 facilities to maintain enrollment in the PL 84-99 program, to meet the provisional 18,800 cfs level of protection, plus three feet of freeboard, and to provide environmental improvements and other multi-benefits when the impacts of a wider footprint on agricultural lands, buildings intended for occupancy, and parks and recreation facilities are minimized.
- The District would utilize the following hierarchy in areas protected by other levees (not enrolled in the PL 84-99 program) and upon identification of a flood hazard management need:
  - The District would leave the existing levee in place and use non-structural approaches to flood hazard management, e.g., flood proofing, where practicable.
  - In areas where nonstructural approaches are not practicable, the District would repair, improve, and extend the length of the existing facilities as needed to provide the provisional 18,800 cfs level of protection, plus three feet of freeboard.
  - The District would set the facilities as far back from the river channel as practicable while recognizing some property acquisition and effects on buildings, parking and traveled roadways may be necessary to provide environmental improvements and other multi-benefits.

### **No Existing Flood Hazard Management Facilities**

- The District would utilize the following hierarchy in areas where no flood hazard management facilities exist and upon identification of a flood hazard management need:
  - The District would use non-structural approaches to flood hazard management, e.g., flood proofing, where practicable. In areas where nonstructural approaches are not practicable, the District would move to the next option.
  - The District would design and implement flood hazard management facilities set as far back from the river channel as practicable while recognizing some property acquisition and effects on buildings, parking and traveled roadways may be necessary to provide environmental improvements and other multi-benefits.

### **Multi-Benefit Floodplain Management**

- The District would systematically design and implement multi-benefit floodplain management projects that reduce flood hazards, ensure public safety and restore river ecosystems in an equitable and just manner, while also advancing the inter-related interests of the community as described in FCD Motion 20-07.1
- The District would protect, improve, and restore riparian habitats and conditions in locations and of a size needed to support adopted salmon recovery plans in areas where there is an identified flood hazard.

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- The District would design and implement flood hazard management facilities to maintain existing recreation facilities to the extent practicable.
- The District would support nonstructural solutions to allow recreation areas that can withstand periodic flooding.
- The District would design and implement flood hazard management facilities to include new passive recreational opportunities in more areas.
- The District would address effects of inundation through the implementation of nonstructural solutions such as drainage improvements and floodproofing.

### **Acquisitions**

- The District would acquire property on a voluntary basis to the extent practicable.
  - The District may utilize condemnation in order to achieve necessary flood hazard management needs if voluntary approaches to acquisition are not successful.
  - The District would not utilize condemnation solely for environmental improvements or other multi-benefits.
- The District would set flood hazard management facilities as far back from the river channel as practicable while recognizing some property acquisition and some effects on buildings, parking and traveled roadways may be necessary to provide environmental improvements and other multi-benefits.

### **Adaptive Management**

The District would establish a process to periodically evaluate progress under the Plan based on established goals and indicators. The District would include Tribes, federal and state agencies, local jurisdictions, and stakeholders in the periodic review. The review would consider the following:

- Equity and Social Justice;
- Environmental Justice;
- Habitat protection and salmon recovery;
- Jobs and sustainable livelihoods;
- Open space conservation;
- Productive and viable agriculture;
- Recreation and other opportunities to connect with nature;
- Resilient communities and ecosystems;
- Sustainable and clean water;
- Sustainable development; and
- Revisions to Plan goals and indicators.

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**ALT 3: Enhanced Systematic Multi-Benefit Implementation**

*This alternative is a substantial shift from the District's current practices. Under this alternative, the District would continue to provide flood hazard reduction but would pursue habitat protection and restoration to a notably greater extent than with either of the other alternatives while achieving multiple benefits across the Lower Green River.*

The District would develop an area-specific Flood Hazard Management Plan for the Lower Green River in collaboration with Tribes, federal and state agencies, local jurisdictions, and stakeholders that places greater emphasis on protecting and restoring habitat for threatened salmon and other species. The Plan would establish goals and indicators for managing flood hazards in a manner that would protect, improve, and restore riparian and aquatic habitats and establish conditions that support recovery of threatened salmon and other species. The Plan would describe actions the District would take under its authority and highlight potential partnership opportunities with Tribes, federal and state agencies, local jurisdictions, and stakeholders. The multi-benefits described in Motion FCD 20-07.1 would be systematically and rigorously advanced.

With this alternative the District would maintain enrollment in the PL 84-99 program but in conjunction with flood hazard management actions could pursue flood management improvements at a scale and design supporting progress towards achieving adopted salmon habitat goals. This alternative would include taking advantage of opportunities to restore habitat functions (e.g., increasing channel capacity to provide backwater or off-channel rearing habitat). With cooperation from local jurisdictions some adjacent property owners could be provided with incentives for helping accommodate these changes.

**Elements Common To All Alternatives:**

- Actions by the Flood Control District must be related to flood hazard management needs.
- The District would continue to fulfill its duty under Chapter 86.15 RCW to plan, construct, acquire repair, maintain and operate all necessary equipment, facilities, improvements and works to control, conserve and remove flood and storm water as well as take action necessary to protect life and property from flood water damage.
- The District would honor and respect tribal and treaty reserved rights.
- The District would continue to rely on a system of flood facilities that include levees, revetments, and floodwalls to protect people, jobs, and property on the Lower Green River.
- The District would use the provisional 18,800 cfs, plus three feet of freeboard, to design and evaluate potential flood hazard management measures.
- The District would maintain enrollment in the US Army Corps of Engineers PL 84-99 program for those facilities that are currently enrolled.
- The District would protect and not isolate housing and neighborhoods with flood hazard management facilities.
- The District would protect housing and community facilities used by historically disadvantaged populations (low-income and people of color).

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- The District would prioritize the design and implement multi-benefit floodplain management projects as described in FCD Motion 20-07.1.
- The District would follow the policies included in the adopted Flood Hazard Management Plan including the policy to ensure that its actions will not have an adverse flooding impact on upstream or downstream property owners.
- The District would continuously study the effects of climate change and use best available science for flood hazard management planning, adaptive management, and facility design.
- The District would design facilities to improve habitat and water quality (e.g., vegetation to provide shading or large woody debris) when practicable.

Upon establishment of a flood hazard management need, additional components of this alternative are:

### **Existing Flood Hazard Management Facilities**

- The District would repair and improve existing PL 84-99 facilities as needed to maintain enrollment in the PL 84-99 program and to provide the provisional 18,800 cfs level of protection, plus three feet of freeboard.
  - The District may relocate PL 84-99 facilities to maintain enrollment in the PL 84-99 program, to meet the provisional 18,800 cfs level of protection, plus three feet of freeboard, and to provide environmental improvements and other multi-benefits provide environmental improvements and other multi-benefits when the impacts on agricultural lands are minimized.
  - The District may acquire and relocate business and residential dwellings to accommodate setting back the levee.
- The District would utilize the following hierarchy in areas protected by other levees (not enrolled in the PL84-99 program) and upon identification of a flood hazard management need:
  - The District would leave the existing levee in place but otherwise do nothing, allowing the area to inundate. Depending on the land use and the amount and extent of inundation, the District would apply one of the following approaches to parcels within the affected area:
    - Acquire the property for flood storage and relocate people and businesses. Allow partners to assist in the development of habitat improvements consistent with flood storage needs. In areas where this is not practicable, the District would move to the next option.
    - Apply nonstructural solutions such as floodproofing to protect people and property and provide multi-benefits. Where this approach is not practicable the District would move to the next option.
  - Relocate existing facilities as far back from the river as practicable in order to protect, improve, restore, or enhance aquatic and riparian and related multi-benefits.
- To maximize the amount of flood hazard management facilities that are setback, the District would coordinate with the local jurisdiction to identify opportunities such as:
  - Areas adjacent to the river identified for redevelopment for which land use incentives could be incorporated that accommodate a setback.
  - Areas adjacent to the river that are vacant or where the improved value to land value ratios are relatively low and could accommodate a setback.

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- Undeveloped parkland, passive recreation, and open space area that could adapt to being riverward of a flood hazard management facility.
- Active recreation facilities that could be adapted to a smaller footprint to accommodate a setback.

### **No Existing Flood Hazard Management Facilities**

- The District would utilize the following hierarchy in areas where no flood hazard management facilities exists and upon identification of a flood hazard management need:
  - The District would do nothing and would allow the river to maintain connection to the floodplain. Depending on the land use and the amount and extent of inundation, the District would apply one of the following approaches to parcels within the affected area:
    - The District would acquire property for flood storage and relocate people and businesses where people and property are potentially affected by floods. In areas where this is not practicable, the District would move to the next option.
    - The District would apply nonstructural solutions such as floodproofing to protect people and property and provide multi-benefits. Where this approach is not practicable the District would move to the next option.
  - The District would build and set back flood hazard management facilities from the river channel in order provide flood hazard management and to protect, improve, or enhance aquatic and riparian habitat and related multi-benefits, to the extent practicable.

### **Multi-Benefit Floodplain Management**

- The District would systematically and rigorously design and implement multi-benefit floodplain management projects that reduce flood hazards, ensure public safety and restore river ecosystems in an equitable and just manner, while also advancing the inter-related interests of the community as described in FCD Motion 20-07.1
- The District would protect, improve, and restore riparian habitats and conditions in more locations and of a size needed to support adopted salmon recovery plans in areas where there is an identified flood hazard.
- The District would design and implement flood hazard management facilities to maintain existing recreation facilities to the extent practicable.
- The District would design and implement flood hazard management facilities to include recreation areas that accommodate periodic flooding.
- The District would design and implement flood hazard management facilities to include more new passive recreation areas that accommodate periodic flooding.
- The District would design and implement flood hazard management facilities to maintain areas of protected agricultural land to the extent practicable. The District would apply a combination of structural and nonstructural measures to reduce the amount and effects of inundation on agricultural land.

### **Acquisitions**

- The District would acquire property on a voluntary basis to the extent practicable.

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- The District may utilize condemnation to achieve flood hazard management needs and environmental improvements or other multi-benefits, if voluntary approaches to acquisition are not successful.
- The District would set flood hazard management facilities as far back from the river channel as practicable while recognizing more property acquisition and more effects on buildings, parking and traveled roadways, agricultural lands, and active recreation areas (e.g., ballfields, golf courses, and some parks) may be necessary to provide environmental improvements and other multi-benefits.

### **Adaptive Management**

The District would establish a process to periodically evaluate progress under the Plan based on established goals and indicators. The District would include Tribes, federal and state agencies, local jurisdictions, and stakeholders in the periodic review. The review would consider the following:

- Equity and Social Justice;
- Environmental Justice;
- Habitat protection and salmon recovery;
- Jobs and sustainable livelihoods;
- Open space conservation;
- Productive and viable agriculture;
- Recreation and other opportunities to connect with nature;
- Resilient communities and ecosystems;
- Sustainable and clean water;
- Sustainable development; and
- Revisions to Plan goals and indicators.

## Attachment A

King County Flood Control District

Lower Green River Corridor Flood Hazard Management Plan Programmatic Environmental Impact Statement  
Alternatives

October 6, 2021

## Glossary

**Flood hazard:** The potential for people and property to be harmed by flooding.

**Flood walls:** A flood wall is a primarily vertical artificial barrier that contains water levels to prevent flooding. Because they are vertical, they generally require less space than a levee. Depending on where they are constructed relative to the river channel, flood walls can still accommodate multi-benefits such as open space and habitat.

**Flood Proofing:** Any combination of structural or nonstructural changes or adjustments incorporated in the design, construction, or alteration of individual buildings or properties that will reduce flood damage.

**Freeboard:** A factor of safety usually expressed in feet above a flood level for purposes of designing flood protection facilities and for floodplain management. Freeboard tends to compensate for the many uncertain factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge obstructions, and the hydrological effect of urbanization of the watershed.

**Levees:** Levees are artificially constructed embankments that regulate water levels to prevent flooding. Levees have sloped sides and hence require more space than a flood wall. Levees may have flat tops that provide access for maintenance and may be used as trails.

**Level of protection:** Level of Protection means the chance of flooding in any one year. The District set a provisional level of protection for the Lower Green River of 18,800 cfs. This level was established based on information from the US Army Corps of Engineers on the operation of the Howard A. Hanson Dam.

**Managed retreat:** Managed retreat involves the purposeful acquisition and possible condemnation of property and coordinated movement of people and buildings away from flood hazards. This may involve the movement of a residences, businesses, or infrastructure (e.g., building or road).

**Non-structural solutions:** A set of measures that do not make use of traditional structural flood measures such as levees and flood walls. Examples of non-structural solutions include removing structures, evacuation and rescue plans, flood easements, drainage, wet-proofing, and dry-proofing.

**PL 84-99 levee:** Public Law 84-99 (PL 84-99) is program that reimburses for flood damage from high-water events. The program is managed by the US Army Corps of Engineers. To qualify for the program the levee sponsor demonstrates a levee meets Corps requirements and maintains the levee in accordance with Corps requirements.

**Planned development:** Planned development means the type of land use for an area described in adopted zoning ordinances and land use plans. These include ordinances and plans by local jurisdictions, King County Countywide Planning Policies, and regional plans adopted by the Puget Sound Regional Council.

**Practicable:** Capable of being put into practice or of being done or accomplished – feasible.

**Revetments:** Revetments are sloping rock or concrete structures intended to absorb the energy of flowing water and prevent damage during floods.

**Setbacks:** Flood hazard management facilities (such as levee and floodwalls) that are located at a distance from a river channel in such a way to allow the river to meander in a more natural manner and occupy some or all its natural floodplain during high water events.

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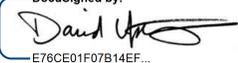
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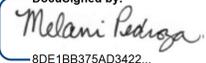
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PDF Reader:	Acrobat® or similar software may be required to view and print PDF files
Screen Resolution:	800 x 600 minimum

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