

Snoqualmie Basin Technical Committee Meeting

Thursday, May 31, 1:30–3:30

Snoqualmie Public Works Conference Room
38191 Stearns Rd
Snoqualmie, WA 98065

A G E N D A

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|--|-----------------------------|
| 1. Introductions | Tom Bean
1:30 – 1:40 |
| 2. Advisory Committee Meeting Recap | Brian Murray
1:40 – 1:50 |
| 3. New Project Summary Sheets – Discussion and Recommendations | Tom Bean
1:50 – 2:15 |
| 4. Prioritized Project List – Discussion and Recommendations | Brian Murray
2:15 – 3:15 |
| 5. Proposed Subregional Project Criteria | Brian Murray
3:15 – 3:30 |

King County FCZD Preliminary Project Prioritization Criteria

The following prioritization scheme is intended to help prioritize KCFCZD projects based on the imperative to complete each project from a flood risk/vulnerability perspective only. The basis for these criteria is the 2006 King County Flood Hazard Management Plan policies related to flood risk hierarchy (G-2) and project prioritization (PROJ-1). Legal responsibility, environmental impacts or benefits, benefit-cost analyses, and funding or other opportunistic criteria, are not included in this prioritization scheme, but may be added at a later date.

1) What is the current land use? (Consequences)

This criterion is intended to give different weights to different types of land uses. If more than one type of land use is at risk, select the applicable land use with the highest score. Use the score range provided to give more or less weight base on site specific conditions. For example a sole access road would be given a higher score than one for which a reasonable alternative route exists.

Description	Score
Critical Facilities (See list on page 2)	11-12
Residential	9-10
Commercial (Some commercial structures are critical facilities - see list)	7-8
Agricultural (FPP land should be given higher score than non FPP lands)	5-6
Developed Recreational (Those with regional importance should receive higher scores.)	3-4
Undeveloped land in floodplain or Moderate CMZ	1-2
Undeveloped land in floodway or Severe CMZ	0

2) How serious is the potential impact? (Consequences and Severity)

This criterion is intended to evaluate the nature and severity of the impacts irrespective of the scale at which the impact will occur. The scoring range can be used to differentiate between similar types of impact that have different likelihoods of occurring.

Description	Score
Human injury or death could result from deep fast flows or sudden changes in flood conditions. (e.g. levee or road failure.)	9-12
Total loss of developed land use (e.g. developed land is converted to river channel.)	7-8
Severe flood or erosion damage that will heavily impact those affected.	5-6
Moderate flood or erosion damage which will not likely have a long term impact on those affected.	3-4
Flooding that interrupts human activity or will result in some clean up needs but which will results in little or no damage that will need to be repaired.	1-2

3) How extensive will the impact be? (Consequences and Severity)

This criterion describes the scale of the problem. Is the problem manifest over a large area or in a manner that will affect a large number of people, or is it largely localized. In instance were the physical impact is over a small area, but a larger number of people will be affected, apply score based on the impact rather than just the physical area. Scoring range can be used to differentiate between different degrees of extensiveness within the listed categories.

Description	Score
Regional (Impacts will be felt well outside the area in which the flooding or erosion occurred.)	7-8
Severe (City centers, larger neighborhood)	5-6
Moderate (Several structures, roads et impacted)	3-4
Localized (Affects a few homes or business)	1-2

4) How soon will the impact occur? (Urgency)

This criterion is used to describes how soon the flood risk needs to be addressed to avoid its occurrence or reoccurrence.

Description	Score
Some or all of the damages described will likely occur or recur during the next major high flow event.	5-6
Damages may occur during the next high water event, or the potential for them to occur is rapidly increasing.	3-4
Damages will eventually occur, but the risk of them occurring is not increasing rapidly	1-2

Critical Facilities Defined

The following list is intended to help understand what constitutes a "Critical Facility". This list has been compiled from the KC Critical Areas Ordinance and the International Building Code.

1. Facilities in which > 300 people congregate
2. Daycares, elementary schools and secondary schools with > 250 people
3. College and adult education facilities with > 50 people
4. Hospitals and Healthcare facilities with > 50 resident patients
5. Jails and detention facilities
6. Facilities with > 5000 occupants
7. Power, Wastewater and potable water treatment facilities
8. Fire, rescue and police facilities
9. Designated emergency shelters
10. Power generation and public utility faculties
11. Aviation facilities
12. Critical national defense facilities
13. Nursing and personal care facilities
14. Senior citizen assisted housing
15. Public roadways and bridges
16. Sites that produce, use or store hazardous substances or hazardous waste (not including sites that temporarily store household products intended of sale on the site)

Ordinance 15051 (CAO), lines 605 - 614

Critical facility: a facility necessary to protect the public health, safety and welfare including, but not limited to, a facility defined under the occupancy categories of "essential facilities," "hazardous facilities" and "special occupancy structures" in the structural forces chapter or succeeding chapter in the K.C.C. Title 16. Critical facilities also include nursing and personal care facilities, schools, senior citizen assisted housing, public roadway bridges and sites that produce, use or store hazardous substances or hazardous waste, not including the temporary storage of consumer products containing hazardous substances or hazardous waste intended for household use or for retail sale on the site.

Section 1602 International Building Code

Esseintial Facilities. Buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes.

DRAFT

Snoqualmie Risk Prioritized Project List

<u>Project Name</u>	<u>Project Description</u>	<u>What is the current land use?</u>	<u>How serious is the potential impact?</u>	<u>How extensive will the impact be?</u>	<u>How soon will the impact occur?</u>	<u>Total Score</u>
Tolt Pipeline Protection	Stabilize riverbank using engineered logjams.	12	8	8	4	32
Middle Fork Snoqualmie River Flood Damage Repairs	Complete two Middle Fork Snoqualmie flood protection facility repair projects.	10	12	5	5	32
Lower Snoqualmie River Flood Damage Repairs	Complete 23 Lower Snoqualmie River flood protection facility repair projects.	11	12	4	4	31
South Fork Snoqualmie Flood Damage Repairs	Complete 16 South Fork Snoqualmie River flood protection facility repair projects.	12	6	7	6	31
City of Snoqualmie Natural Area Acquisitions	Purchase flood prone property and structure.	10	8	6	6	30
South Fork Levee System Improvements	Rebuild and strengthen selected portions of the existing levee system in a manner that maintains current preferential protection of the more heavily developed parts of the City of North Bend.	12	6	7	5	30
Raging River Flood Damage Repairs	Complete twelve Raging River flood protection facility repair projects.	10	10	5	4	29
Middle Fork Levee System Capacity Improvements	Remove levee segments to reduce channel constrictions which hinder flood conveyance.	10	8	7	4	29
Aldair Buyout	Remove existing homes from low-lying ground immediately behind the deteriorating Aldair levee.	10	6	6	6	28
Lower Snoqualmie River Repetitive Loss Mitigation	Purchase and remove structure, or otherwise mitigate flood risks to ten repetitive loss properties.	10	6	6	6	28
Alpine Manor Mobile Home Park Neighborhood Buyout	Purchase and remove homes at risk from flooding and channel migration.	10	10	5	3	28
Lower Tolt River Acquisition	Purchase floodway property to avoid damage in flood prone area.	10	8	7	3	28
San Souci Neighborhood Buyout	Purchase homes in high flood and erosion hazard area.	10	10	5	3	28
Tolt River Flood Damage Repairs	Complete two Tolt River flood protection facility repair projects.	11	8	5	4	28
Tolt River Repetitive Loss Mitigation	Elevate or otherwise mitigate flood risks to repetitive two repetitive loss properties.	10	6	6	6	28
Tolt River Road Shoulder Protection	Install 200 feet of buried rock riprap along the shoulder of the Tolt River Road to protect the road from active channel migration.	11	8	5	4	28
North Bend Area Residential Flood Mitigation	Reduce flood risks to homes in the North Bend area. Initially focus on five unmitigated repetitive loss properties and surrounding areas.	10	8	6	4	28

**Snoqualmie
Risk Prioritized Project List**

<u>Project Name</u>	<u>Project Description</u>	<u>What is the current land use?</u>	<u>How serious is the potential impact?</u>	<u>How extensive will the impact be?</u>	<u>How soon will the impact occur?</u>	<u>Total Score</u>
McElhoe/Person Levee	Remove or set back part of levee and reconnect the floodplain and river channel.	10	7	5	4	26
Abandoned Bridge Abutment and Waring Revetment Channel Constriction	Remove channel constriction at old bridge site.	10	8	4	4	26
Tolt River Natural Area Floodplain Reconnection/Acquisition	Purchase two homes that are at risk from flood damages and reconfigure the downstream end of the Edenholm levee to improve flood conveyance.	10	9	3	4	26
Neal Road Relocation	Relocate the north end of Neal Road away from eroding riverbank. Road is currently closed due to subgrade damage, limiting emergency access to frequently flooded farms.	10	7	4	4	25
Tolt River Mile 1.1 Levee Setback	Purchase 16 flood-prone parcels and approximately 1.5 acres of Remlinger Farm so that levee can be set back in more stable configuration. Setback alignment would also improve conveyance in the vicinity of the Snoqualmie Trail bridge.	10	6	3	4	23
Tolt River SR 203 to Trail Bridge Floodplain Reconnection	Set back levee to improve flood conveyance.	10	6	4	3	23
Patterson Creek Acquisition	Purchase property that is being impacted by alluvial fan development where a tributary to Patterson Creek enters the floodplain.	10	6	1	4	21
Stout Property Restoration	Stabilize bank with native vegetation to protect agricultural lands.	6	7	2	6	21
Lower Raging River Restoration	Setback levee system to improve flood conveyance through Fall City.	10	5	5	1	21
Deer Creek Channel Relocation	Relocate creek away from a farm road and two farm buildings.	6	7	3	4	20
SE 19th Way Road Buyout	Purchase farm which is at risk of being isolated by bank erosion.	10	4	2	4	20
Snoqualmie River Byers Floodplain and Riparian Restoration	Install drift fence to reduce erosion of agricultural property.	6	7	1	6	20
Snoqualmie River Bank Stabilization Agriculture Lands	Stabilize bank with native vegetation to protect agricultural lands.	10	5	2	1	18
Sandy Cove Park Restoration	Stabilize bank to protect public park.	3	8	1	6	18
Snoqualmie River Fall City Reach Reconnection and Acquisition	Reconnect adjacent floodplain to improve flood conveyance and storage.	6	6	3	2	17

**Snoqualmie
Risk Prioritized Project List**

<u>Project Name</u>	<u>Project Description</u>	<u>What is the current land use?</u>	<u>How serious is the potential impact?</u>	<u>How extensive will the impact be?</u>	<u>How soon will the impact occur?</u>	<u>Total Score</u>
Lower Snoqualmie Floodplain Capacity and Shoreline Stabilization	Reconnect the river with its floodplain and increase floodplain capacity. Stabilize the shoreline with native vegetation.	9	5	1	1	16
HerbCo Farm	Stabilize bank with native vegetation to protect agricultural lands.	5	5	2	3	15
Tolt River Mouth to SR 203 Levee Setback - Technical Support	Set back existing levee to improve flood conveyance.	4	4	3	4	15
Jubilee Farm	Stabilize bank with native vegetation to protect agricultural lands.	6	5	2	1	14
Upper Snoqualmie River Flood Damage Repairs	Complete one Upper Snoqualmie Mainstem River flood protection facility repair project.	4	4	4	2	14
Gonneson Revetment Removal / Acquisition	Purchase land and remove bank armor to allow the Snoqualmie River to migrate laterally along meander bend.	5	1	1	1	8
Snoqualmie River Footbridge Off Channel Reconnection	Reconnect floodplain for flood storage and to reduce risk of damage to properties on the opposite bank.	4	2	1	1	8
Camp Gilead Off-Channel Reconnection	Remove upstream and of levee to improve flood conveyance.	0	1	1	1	3
Cherry Creek Mouth Restoration	Restore channel to its circa 1960 alignment to create approximately 2000 feet of new channel.	0	1	1	1	3
Chinook Bend Reach Restoration	Remove levees to allow river to better access to the floodplain. Provide remaining match.	0	1	1	1	3
Stillwater Restoration	Remove levees and stabilize banks with native vegetation.	0	1	1	1	3

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

- 1. Project Name:**
- 2. Project Proponent (Name and Agency):**
- 3. Basin/Watershed:**
- 4. Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
- 5. Total Estimated Project Cost (all phases):** \$
- 6. Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____
 \$ 0

LOCATION INFORMATION

- 7. Downstream River Mile # to Upstream RM #:**
- 8. Right bank, Left bank, or Both banks:**
- 9. Jurisdiction(s):**
- 10. Public or Private lands:**
- 11. Agriculture Production District or Farmland Preservation Program lands: yes/no/do not know**

PROJECT INFORMATION

- 12. What's At Risk:**

- 13. Problem Statement:**

- 14. Proposed Project or Action:**

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

15. Project Benefits:

16. Coordination Needs:

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and ‘ripeness’ of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

- 1. Project Name: Supplemental Study of the Tolt and Tolt/Snoqualmie Confluence**
- 2. Project Proponent (Name and Agency): City of Carnation**
- 3. Basin/Watershed: Snoqualmie/WRIA 7**
- 4. Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
- 5. Total Estimated Project Cost (all phases): \$100,000**
- 6. Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:

 \$ 0

LOCATION INFORMATION

- 7. Downstream River Mile # to Upstream RM #:** Tolt – 0 to 2; Snoqualmie 25 to 23
- 8. Right bank, Left bank, or Both banks:** Tolt – Right bank; Snoqualmie – Right bank
- 9. Jurisdiction(s):** City of Carnation/King County
- 10. Public or Private lands:** Both
- 11. Agriculture Production District or Farmland Preservation Program lands: yes/no/do not know**
- no

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

PROJECT INFORMATION

- 12. What's At Risk:** Public health and safety of existing population, private property and public infrastructure. Carnation cannot effectively plan for flood control projects to help mitigate flood hazards from the Tolt or Snoqualmie Rivers without further study.
- 13. Problem Statement:** An analysis of the potential floodplain reconnection project that is identified as an existing project in the Draft KC FCZD CIP list was prepared by Parametrix for Seattle City Light and King County, and completed in 2001. A second study of the Lower Tolt River Floodplain Reconnection project was completed in January 2004. The second study evaluated the potential impact of the proposed floodplain reconnection project on flood hazard within the City of Carnation, and concluded that the project was neutral or slightly beneficial in mitigating flood hazard. While the project does not appear to increase flood hazard, there have been no studies that evaluate how to improve mitigation of potential flood hazard to the City of Carnation from the Tolt River or its confluence with the Snoqualmie.
- 14. Proposed Project or Action:** Supplemental Study of the Tolt and Tolt/Snoqualmie confluence, in conjunction with King County.
- 15. Project Benefits:** The study would allow better integration of flood hazard mitigation into proposed projects on the Tolt River, and, potentially, would enable the City of Carnation to add appropriate projects to the KC FCZD CIP list in future.
- 16. Coordination Needs:** King County, City of Carnation
- 17. Other Information or Needs:** Unknown at this time

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

- 18. Policy G-2 Flood Risks:** please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

- 19. Policy PROJ-1 Prioritizing Flood Risks:** please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and ‘ripeness’ of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** Clough Creek Outfall to South Fork Snoqualmie River
2. **Project Proponent (Name and Agency):** Ronald Garrow, City of North Bend
3. **Basin/Watershed:** South Fork Snoqualmie River (Upper Snoqualmie River)
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$ 250,000
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** Approximately Mile 4.3
8. **Right bank, Left bank, or Both banks:** Left Bank
9. **Jurisdiction(s):** King County
10. **Public or Private lands:** Public
11. **Agriculture Production District or Farmland Preservation Program lands: yes/no/do not know**
NO

PROJECT INFORMATION

12. **What's At Risk:** Homes along the south/west bank of the South Fork Snoqualmie River.
13. **Problem Statement:** The outfall of Clough Creek to the South Fork Snoqualmie River is undersized causing Clough Creek to jump its banks and flow behind the South Fork levee contributing to the flooding of properties downstream of this point.
14. **Proposed Project or Action:** The outfall pipe is to be replaced with a larger sized culvert and backflow preventer. This work should be included as part of the South Fork Levee System Improvements project for the Upper Snoqualmie River.
15. **Project Benefits:** Reduced flooding and damage to public and private properties and avoidance of isolation of the neighborhood south of I-90 during an event.

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

16. Coordination Needs: This work needs to be coordinated with and included in the South Fork Levee System Improvements project of the Upper Snoqualmie River.

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** Gravel Bed Mining River
2. **Project Proponent (Name and Agency):** Ronald Garrow, City of North Bend
3. **Basin/Watershed:** South Fork Snoqualmie River (Upper Snoqualmie River)
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$ 200,000
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** Approximately Mile 3 to Mile 4.3
8. **Right bank, Left bank, or Both banks:** Channel Bottom
9. **Jurisdiction(s):** King County/City of North Bend
10. **Public or Private lands:** Public
11. **Agriculture Production District or Farmland Preservation Program lands:** yes/no/do not know
NO

PROJECT INFORMATION

12. **What's At Risk:** Homes and businesses along both sides of the South Fork Snoqualmie River.
13. **Problem Statement:** The excess accumulation of gravel in the channel bottom of the South Fork Snoqualmie River reduces flow capacity compared to the channel configuration when the levee's were designed/built and causes a backwater effect and subsequent threat of overtopping of the existing levees.
14. **Proposed Project or Action:** The channel bottom is to be mined to the level as anticipated for the proper functionality of the levees on both sides of the river.
15. **Project Benefits:** Reduced risk of levee overtopping and reduced flooding and damage to public and private properties.

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**King County Flood Control Zone District
Project Summary Sheet**

16. Coordination Needs: This work needs to be coordinated with private developments in the area. These developments may be able to utilize the material from the river as fill, thus minimizing the cost of mining the material.

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities: (with private developments)

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** SR202 Bridge Lengthening on South Fork Snoqualmie River
2. **Project Proponent** (Name and Agency): Ronald Garrow, City of North Bend
3. **Basin/Watershed:** South Fork Snoqualmie River (Upper Snoqualmie River)
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$ 3,000,000
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** Approximately Mile 2.8
8. **Right bank, Left bank, or Both banks:** Left Bank
9. **Jurisdiction(s):** Washington State Dept of Transportation/City of North Bend
10. **Public or Private lands:** Public
11. **Agriculture Production District or Farmland Preservation Program lands: yes/no/do not know**
NO

PROJECT INFORMATION

12. **What's At Risk:** Homes and businesses along both sides of the South Fork Snoqualmie River.
13. **Problem Statement:** The abutments of the SR202 bridge across the South Fork Snoqualmie River constrict the flow of flood waters causing a backwater effect and subsequent threat of overtopping of the existing levees. Floodwaters from the last event circumvented the bridge by overflowing the highway to the south of the bridge and overtopping the levees on both sides of the river, flooding the neighborhoods in this vicinity.
14. **Proposed Project or Action:** The south side of the bridge could be extended with the south abutment changed to a pier and a new abutment installed further south. This would allow for more channel width and cross-sectional flow area for the river.

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**King County Flood Control Zone District
Project Summary Sheet**

15. Project Benefits: Reduced risk of levee overtopping and reduced flooding and damage to public and private properties.

16. Coordination Needs: This work needs to be coordinated with Washington State Department of Transportation.

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities: (with WSDOT and BRAC)

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and ‘ripeness’ of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No Unknown

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**PSS
Risk Prioritized Project List**

<u>Project Name</u>	<u>Project Description</u>	<u>What is the current land use?</u>	<u>How serious is the potential impact?</u>	<u>How extensive will the impact be?</u>	<u>How soon will the impact occur?</u>	<u>Total Score</u>
PSS-Carnation-Supplemental Study	Planning study to identify best means of protecting Carnation from Tolt River flood hazards	11	9	5	3	28
PSS-NorthBend-Clough Creek Outfall	Increase culvert size and add gate structure to prevent backflow	10	6	5	6	27
PSS-NorthBend-Gravel Mining	Remove gravel that has aggraded between the South Fork Snoqualmie River levees	11	6	5	6	28
PSS-NorthBend-SR202 Bridge Lengthening	Improve flood flow capacity at bridge crossing	11	6	6	6	29
PSS-Seattle-Tolt Levee Setback	Supplemental funding for Tolt River Mouth to SR 203 Floodplain Reconnection Project (already included in FHMP Action Plan)	4	4	3	4	15
PSS-SnoqTribe-Falls Dam Removal Study	Remove dam and associated flow impediments	10	7	6	5	28
PSS-Snoqualmie-Kimball Creek	Maintenance of channelized creek that carries frequent river flood flow	10	8	2	6	26
PSS-Snoqualmie-Park Street Acquisitions	Acquisition of riverfront homes in floodway with frequent, deep flooding	10	12	6	6	34
PSS-Snoqualmie-Sandy Cove Park	Biostabilization project to protect public park from erosion	3	8	1	6	18

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** Tolt River Mouth to SR 203 Floodplain Reconnection Project
2. **Project Proponent (Name and Agency):** This is a joint project sponsored by King County DNRP, Seattle Public Utilities, and Seattle City Light.
Contact: Brent Lackey
Brent.Lackey@seattle.gov
(206) 684-7890
3. **Basin/Watershed:** Tolt River/ WRIA 7
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$6,000,000: \$1,000,000 requested
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ 0
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** RM 0.0-0.5
8. **Right bank, Left bank, or Both banks:** Right Bank
9. **Jurisdiction(s):** Unincorporated King County
10. **Public or Private lands:** Public
11. **Agriculture Production District or Farmland Preservation Program lands:** No

PROJECT INFORMATION

Please see the project description for the Tolt River Mouth to SR 203 Floodplain Reconnection Technical Support project described in the Flood Hazard Management Plan. We proposed an additional \$1,000,000 to cover construction costs associated with the project.

12. **What's At Risk:** See the project description in the Flood Hazard Management Plan
13. **Problem Statement:** See the project description in the Flood Hazard Management Plan
14. **Proposed Project or Action:** See the project description in the Flood Hazard Management Plan
15. **Project Benefits:** See the project description in the Flood Hazard Management Plan

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

16. Coordination Needs: See the project description in the Flood Hazard Management Plan

17. Other Information or Needs: This project is a priority to both King County and the City of Seattle.

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety: See Flood plan
- Damage to public infrastructure: See Flood plan
- Impacts on the regional economy:
- Damage to private structures: See Flood plan

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2: See Flood plan.
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse: Levee replacement is not urgent, but project leverage opportunity for federal/state grants and Seattle funding (totaling >80%) will go away if construction delayed past 2008.
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities: More than 80% of identified funding comes from grants and City of Seattle partner. Expected to be retracted if full funding not available for 2008 construction start.

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

- 1. Project Name: Snoqualmie Falls Dam Removal Study**
- 2. Project Proponent: Snoqualmie Indian Tribe**
- 3. Basin/Watershed: WRIA 7**
- 4. Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
- 5. Total Estimated Project Cost (all phases): \$ 100,000**
- 6. Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____ TBD _____
 \$ 0

LOCATION INFORMATION

- 7. Downstream River Mile # to Upstream RM #: 39.5-40**
- 8. Right bank, Left bank, or Both banks: Center of River**
- 9. Jurisdiction(s): Snoqualmie Tribe (Historical) /City of Snoqualmie/UTC/FERC**
- 10. Public or Private lands: Public water way /Dam is owned by PSE at this time.**
- 11. Agriculture Production District or Farmland Preservation Program lands: do not know**

PROJECT INFORMATION

- 12. What's At Risk: Flooding/Desecration of a sacred site/Destruction of an important tourist resource.**
- 13. Problem Statement: The Dam causes increased flooding upstream
According to FERC documents and reality**

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

14. Proposed Project or Action: Completely study the benefits of removal the cement weir and all other impediments to the flow of the Snoqualmie River over the dam.

15. Project Benefits: Reduced flooding, reduced cost of flood clean up. Free Flowing waters for all people. Other benefits TBD

16. Coordination Needs: Tribe, PSE, local, State and Federal Gov't.

17. Other Information or Needs: TBD

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project

- Threats to public safety
- Damage to public infrastructure
- Impacts on the regional economy
- Damage to private structures.

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2.
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse.
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility.
- Funding or partnership opportunities

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

Yes -TBD-

No

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** Kimball Creek Drainage Basin
2. **Project Proponent (Name and Agency):** Kirk Holmes, City of Snoqualmie
3. **Basin/Watershed:** WRIA 7
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$500,000.00
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ 50,000.00
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** RM 41
8. **Right bank, Left bank, or Both banks:** Both Banks
9. **Jurisdiction(s):** City of Snoqualmie, King County
10. **Public or Private lands:** Public, Private
11. **Agriculture Production District or Farmland Preservation Program lands:** NO

PROJECT INFORMATION

12. **What's At Risk:** Property, structures, domestic farm animals.
13. **Problem Statement:** The Kimball Creek basin used to apply maintenance practices to keep drainage ditches, culverts, and standing water flowing freely. This basin has been without maintenance for well over 10 years resulting in a silting in of culverts and ditches. Usable acreage is now under the influence of standing water and swamps, creating significant problems for the owners and the City.
14. **Proposed Project or Action:** Propose re-channeling of the Kimball Creek channel in the reach between SE 384th and Meadowbrook Way.
15. **Project Benefits:** Removes standing flood waters from property.

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

16. Coordination Needs: Local, State, and Federal.

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and ‘ripeness’ of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** City of Snoqualmie Property Acquisition and Residential Flood Mitigation
2. **Project Proponent (Name and Agency):** Kirk Holmes, City of Snoqualmie
3. **Basin/Watershed:** WRIA 7
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$ 4,600,000.00
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ _____
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** Approximately RM 41 to 42
8. **Right bank, Left bank, or Both banks:** Left Bank
9. **Jurisdiction(s):** City of Snoqualmie
10. **Public or Private lands:** Private
11. **Agriculture Production District or Farmland Preservation Program lands:** No

PROJECT INFORMATION

12. **What's At Risk:** Properties and structures within the delineated Snoqualmie River FEMA Floodway in the City of Snoqualmie, in particular, those properties located on the immediate left bank of the Snoqualmie River on Park Street SE.

**King County Flood Control Zone District
Project Summary Sheet**

- 13. Problem Statement:** Repetitive loss properties.
- 14. Proposed Project or Action:** Purchase properties along the left bank of the Snoqualmie River.
- 15. Project Benefits:** Reduce repetitive losses, remove property and population from the banks of the river.
- 16. Coordination Needs:** Local, State and Federal.
- 17. Other Information or Needs:**

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

- 18. Policy G-2 Flood Risks:** please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

- 19. Policy PROJ-1 Prioritizing Flood Risks:** please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

- 20. Anticipated Project Start Date** (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

- 21. Is the project identified within an adopted local hazard mitigation plan?**

- Yes
- No

- 22. Do property interests need to be acquired (fee simple or easement) for this project?**

- Yes
- No

- 23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?**

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

Yes
 No

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

GENERAL INFORMATION

1. **Project Name:** Sandy Cove Park Bio-Stabilization and Restoration
2. **Project Proponent** (Name and Agency): Kirk Holmes, City of Snoqualmie
3. **Basin/Watershed:** WRIA 7
4. **Project Type:** check all that apply. See Criteria/Policy Handout for additional project type description.
 Proposed supplement to an existing project, identified as part of the Draft KC FCZD CIP list
 Newly identified major river flood CIP, not currently on the Draft KC FCZD CIP list
 Sub-regional project proposal, not currently on the draft KC FCZD CIP list,
5. **Total Estimated Project Cost (all phases):** \$ 650,000.00
6. **Proposed Local Share** (if sub-regional project). Provide other actual local share if known or proposed, if not known:
 \$ 65,000.00
 \$ 0

LOCATION INFORMATION

7. **Downstream River Mile # to Upstream RM #:** Approximately RM 41
8. **Right bank, Left bank, or Both banks:** Left Bank
9. **Jurisdiction(s):** City of Snoqualmie
10. **Public or Private lands:** Public
11. **Agriculture Production District or Farmland Preservation Program lands:** NO

PROJECT INFORMATION

The City of Snoqualmie proposes a budget of \$650,000.00 for a standard bio-stabilization project.

12. **What's At Risk:** City owned open space, neighboring private property owners including structures.
13. **Problem Statement:** Severe migrating erosion is occurring on this sandy bank. Each high water, an estimated two to three feet of high bank shoreline is lost in the river. The river channel, in essence is migrating towards the historic Snoqualmie Downtown area.
14. **Proposed Project or Action:** A typical Bio-Stabilization project would appear adequate for this area.
15. **Project Benefits:** Securing a migrating channel ensures local re-development and preservation of a valuable open space.

** This project summary sheet contains planning level information and preliminary cost estimates; final cost estimates will be developed as more detailed project level information is generated.

**King County Flood Control Zone District
Project Summary Sheet**

16. Coordination Needs: King County

17. Other Information or Needs:

PROJECT PROPOSAL CRITERIA AND POLICY BASIS (See policy/criteria handout for expanded policy text and criteria, used to generate draft KC FCZD CIP lists)

18. Policy G-2 Flood Risks: please check all that apply, as to be addressed by the proposed project and include a brief description of the risk.

- Threats to public safety:
- Damage to public infrastructure:
- Impacts on the regional economy:
- Damage to private structures:

19. Policy PROJ-1 Prioritizing Flood Risks: please check all that apply, associated with proposed project and include a brief description of the risk.

- The consequences that will result if no action is taken. Consequences should be prioritized as identified in Policy G-2:
- Urgency, where urgency is a measure of how quickly an action needs to be taken in order to prevent a risk from growing worse:
- Legal responsibility and authority, where legal responsibility and authority is a contractual relationship between King County and another person or agency to maintain a flood protection facility:
- Funding or partnership opportunities:

20. Anticipated Project Start Date (to reflect feasibility, opportunity, and 'ripeness' of project proposal)

- 0-2 years
- 3-6 years
- 6+ years

21. Is the project identified within an adopted local hazard mitigation plan?

- Yes
- No

22. Do property interests need to be acquired (fee simple or easement) for this project?

- Yes
- No

23. If property interests need to be acquired, is the landowner willing to sell or sign a voluntary letter of agreement, expressing an interest in selling necessary property interests?

- Yes
- No