



**Birch Bay Watershed and Aquatic Resources Management District
Citizen Advisory Committee Meeting Agenda**

November 19, 2024 - 6:00 to 7:00 PM

Whatcom County Civic Center Annex – Garden Level Room
322 N Commercial Street, Bellingham, WA 98226

To Join Zoom Meeting:

<https://us06web.zoom.us/j/85345478023>

INTRODUCTIONS —Michael Allen, BBWARM Advisory Committee Chair	
6:00	PUBLIC COMMENT PERIOD — Please limit your comment time to 3 minutes or less. We encourage the public to provide a written copy of your comments for our records.
PRESENTATIONS/DISCUSSION ITEMS	
6:10	Project Discussion: Birch Bay Shoreline Berm – Terrell Creek Reach - Roland Middleton, Whatcom County Public Works Special Project Manager
6:30	Phase 2 Climate Vulnerability & Shoreline Management Solutions Project Update – Chris Elder, Whatcom County Public Works Watershed Planner
BUSINESS ITEMS —Michael Allen, BBWARM Advisory Committee Chair	
6:45	MEETING SUMMARY — Approval of the July 17, 2024 retreat summary
6:50	COMMITTEE MEMBER COMMENTS
6:55	NEXT MEETING DATE/AGENDA TOPICS
7:00	ADJOURN

2025 Meeting Schedule: January 15, April 16, July 16, October 15, 6-8pm, location TBD

Individuals who require special assistance to participate in the meetings are asked to contact Holly Faulstich (HFaulsti@co.whatcom.wa.us) at least 96 hours in advance.



BBWARM
Birch Bay Watershed
and Aquatic Resources
Management District

Birch Bay Watershed and Aquatic Resources Management District
Citizen Advisory
Committee
Biannual
Retreat



July 17, 2024

- 10:00 to

3:00 PM

Semiahmoo Cannery Lodge

9261 Semiahmoo Parkway, Blaine, WA 98230

MEETING SUMMARY

INTRODUCTIONS — Michael Allen - BBWARM Advisory Committee Chair	
10:00	Introductions
	Agenda Review —Additions or deletions?
	Meeting Summary — Approval of the April 17, 2024 meeting summary
PRESENTATIONS/DISCUSSION/ACTION ITEMS	
10:10	1. Welcome and Opening Remarks – Elizabeth Kosa, Director, and Laura Frolich, Assistant Director of Public Works
10:20	2. Ice Breaker/Practice with Poll Anywhere – Kate Rice
10:30	3. BBWARM History & AC Member Roles and Responsibilities – Holly Faulstich
10:45	4. NPDES Program Background & Updates – Cathy Craver
11:00	5. AC Member Questions/Feedback & Topics of Interest - Kate Rice, Holly Faulstich • Pop quiz! <ul style="list-style-type: none">• Input on future meeting format• Opportunities for involvement• Open discussion - AC member questions/feedback
PROGRAM REPORTS/UPDATES	
11:40	Brief Program Updates – Administration, Education & Outreach, Water Quality, NNLP
11:50	Action Item Review & Next Meeting Date/Agenda
12:00	LUNCH
1:00	FIELD TRIP TO STORMWATER CAPITAL IMPROVEMENT PROJECT SITES (North to South) <ul style="list-style-type: none">• Normar Place Stormwater Improvements (future)• Charel Terrace Stormwater Outfall Repair (past/future)• Birch Point Drainage System Repair at DNR Property (past)• Semiahmoo Drive South & Outfall Improvements (future)• Cottonwood Inlet Repair (past) – if time allows• Lora Lane Drainage & Tide Gate Modifications (future) – if time allows

2024 Meeting Schedule: January 17, February 21, April 17, May 8, July 17, October 23

ATTENDEES

Committee Members: Jane Mauk, Rebecca Hardie, Sherrie Jarrett-Green, Bob Shanabarger

Absent: Michael Allen

County Staff: Holly Faulstich, Kate Rice, Brittany Ballard, Elizabeth Kosa, Laura Frolich, Kraig Olason, Loni Patterson, Cathy Craver

Community Members: None

CONVENE MEETING & INTRODUCTIONS: Meeting began at 10:03 a.m. County staff and BBWARM Advisory Committee members introduced themselves and talked about their professional experience and current roles.

AGENDA REVIEW: No revisions were requested.

MEETING SUMMARY: In Michael Allan's absence, Jane Mauk approved the April 17, 2024 meeting summary as written without changes.

PRESENTATIONS/DISCUSSION/ACTION ITEMS

1. Welcoming and Opening Remarks

Whatcom County Public Works (WCPW) Director Elizabeth Kosa introduced herself and her role and expressed gratitude for the Advisory Committee's critical work in Birch Bay. She also introduced the new Assistant Director, Laura Frolich, who was hired in May of 2024. Laura has a background in surface water management in Snohomish County. She has worked on water resource issues for 20 years, including in Colorado and California. When asked about the biggest challenge facing the county with respect to stormwater, her response was pollution identification and correction, and the difficulty of managing stormwater runoff in areas with inadequate or failing infrastructure.

2. Ice Breaker/ Practice with Poll Anywhere

Kate Rice provided an ice breaker activity using the platform Poll Everywhere. Advisory Committee members shared how long they have worked in Birch Bay, what words come to mind when they think about serving BBWARM, and their favorite thing about Birch Bay.

3. BBWARM History & AC Member Roles and Responsibilities

Holly Faulstich provided a brief presentation on the history of BBWARM and core program areas. The BBWARM district was established in 2010 in response to community concerns about water quality, flooding, and loss of aquatic habitat in the Birch Bay watershed. The Birch Bay Comprehensive Stormwater Plan, developed in 2006, outlines a wide variety of solutions to drainage problems in Birch Bay and guides many of the district's activities. There are five main program areas: capital improvement projects, maintenance and small works, habitat improvement, education & outreach and water quality monitoring.

The five-member citizen advisory committee (AC) guides the program and makes recommendations to the Flood Control Zone District Board of Supervisors (Whatcom County Council). Holly reviewed the core AC member roles and responsibilities and provided an overview of several documents in the meeting packet including: BBWARM AC Business Rules, Ground Rules, County Council Expectations for Boards & Commissions, WCC Chapter 100.06: Subzone Advisory Committees, and the BBWARM website resources.

4. NPDES Program Background & Updates

Cathy Craver, Senior Planner with WCPW, presented an overview of the county's National Pollutant Discharge

Elimination System (NPDES) Phase II permit and program highlights. It is a federal permit that regulates stormwater and wastewater discharges from small municipal separate storm sewer systems (MS4s) into water bodies of the State (e.g. rivers, lakes, etc.). While it is a federal permit, the regulatory authority has been passed on to the Washington State Department of Ecology. The municipalities issued the permits are required to create and implement a Stormwater Management Program (SWMP) to improve the water quality in various water bodies throughout the State. The Birch Bay Urban Growth Area was officially included in the permit area on August 1, 2013 after a petition from REsources for Sustainable Communities to the Department of Ecology. Whatcom County coordinates with multiple state agencies and departments to monitor water quality. Inspection and maintenance of stormwater treatment and flow control capital facilities occurs annually. NPDES Engineering Technicians inspect catch basins every-other year. Catch basins that need to be cleaned, repaired, or replaced are then scheduled for maintenance within six months. The technicians also provide inspections and technical support to owners of private stormwater facilities as requested.

5. AC Member Questions/ Feedback & Topics of Interest

- **Pop Quiz:** Kate hosted an interactive BBWARM trivia game using Poll Everywhere with prizes.
- **Input on future meeting format and location:** Holly led an open discussion on meeting format and location preferences.
 - The AC was happy with the current meeting format (quarterly updates from staff and occasional special meetings with presentations on topics of interest).
 - Suggested meeting locations included Birch Bay Village clubhouse, portable at Planning and Development Services Northwest Annex, Garden Room at Civic Center Annex, BP Heron Center (for spring/summer) and the Semiahmoo Cannery Lodge. It was decided that the Chamber of Commerce space was too small.
 - Kraig recommended that the meeting location gets rotated, but there should be a standard schedule to encourage more community attendance and participation.
- **Opportunities for involvement:** The AC reviewed several opportunities for increased involvement and will discuss further at the next quarterly meeting. Options included:
 - Working as an “ambassador” for a program of particular interest
 - Being involved in the selection of capital or small works projects
 - Joining another group/committee as a liaison for BBWARM
 - Hosting more public meetings or open house/community townhall meetings
 - Attending community outreach events and talking to the public about BBWARM
- **Open discussion - AC member questions/feedback:** The AC and county staff discussed program continuity in the face of staff turnover. Kraig talked about the four BBWARM Subwatershed Master Plans and the Six-Year Water Resources Improvement Plans (WRIP) that are relied upon for scheduling capital projects into the future. Many of BBWARM’s programs (such as water quality sampling) are carried out jointly with other county divisions and jurisdictions. Elizabeth assured the group that retaining staff is a priority of the county and that systems are in place to cross-train and transfer historical knowledge to ensure continuity of programs.

PROGRAM REPORTS/UPDATES

Brief Program Updates

- **Administration:** Holly provided brief program administration and development updates, which included staff reports for May-June, second quarter financial report, budget proposal for 2025/2026, rate study final report and next steps.
- **Water Quality:** Due to high fecal coliform counts at several outfalls in the spring, proactive bracket sampling and stream surveys occurred in May and June. A targeted letter was sent to 94 addresses adjacent to BB6, BB7, and BB8 outfalls. The sampling dates coincided with large rainstorm events, which may have contributed to the high counts. Water quality was looking better in June.
- **Outreach:** Kate presented outreach updates on the pet waste pop-up booths, hazardous household

waste campaign, annual summer newsletter, recent events like the June 8th Day at the Beach and July 5th Beach Cleanup, and upcoming events such as Run with the Chums 5k Fun Run on September 14.

- **Habitat Improvements:** Holly provided an update on the Birch Bay Neighborhood Native Landscaping Program (NNLP). There are 9 properties in Birch Bay Village participating this year, with a total of 24,661 square feet being converted from grass into native plant landscaping.
- **Capital Improvement Projects:** Kraig Olason provided updates on the capital project schedule. Holeman Avenue is going to be completed this year (2024). Charel Terrace Repair is being held up with permitting, so will most likely be completed in 2025, along with the Semiahmoo Drive Outfall project. The Lora Lane Drainage & Tidegate Modifications project is likely going to be fast-tracked for 2025 in order to coordinate efforts with Birch Bay Leisure Park, which means that the Normar Place Stormwater Improvements project will be delayed until 2026. An easement is needed for this project and there are significant cultural resource concerns.

Action Item Review & Next Meeting Date/Agenda

- The next BBWARM Advisory Committee Meeting will be held on October 23, 2024 from 6-8pm at the Whatcom County Planning & Development Services' Northwest Annex portable. Discussion topics/action items for the next meeting:
 - Effects of Birch Bay firework events on aquatic life, plants, community members, etc. • Possibly make a recommendation to County Council to prohibit fireworks in Birch Bay • Increased outreach prior to holidays with fireworks
 - Research effects of chemicals on Birch Bay from fireworks
 - Issue of setting off illegal fireworks in Birch Bay
 - Opportunities for further involvement by AC members
 - Holly will look into the cost of renting the Semiahmoo Cannery Lodge on an hourly basis for January, April and October meetings.

ADJOURN BBWARM ADVISORY COMMITTEE: 1:10pm

FIELD TRIP TO STORMWATER CAPITAL IMPROVEMENT PROJECT SITES:

Committee members and county staff toured several past and future capital improvement project sites in Birch Bay including: Normar Place Stormwater Improvements (future), Charel Terrace Stormwater Outfall Repair (past/future), Birch Point Drainage System Repair at DNR Property (past), and Semiahmoo Drive South & Outfall Improvements (future).

Approved: _____

Michael Allen, BBWARM Advisory Committee Chair

Sept-Oct 2024 BBWARM Staff Report

This report summarizes BBWARM program activities during the months of Sept-Oct 2024.

Program Management & Administration

- The third quarter financial report is complete and posted to the BBWARM website.
 - The Six-Year Water Resources Improvement Plan (WRIP) for 2025-2030 was approved by County Council in September. Staff met with the Birch Bay Water & Sewer District and Lake Whatcom Water & Sewer District to review the WRIP and identify opportunities for collaboration and any potential timing or location conflicts.
- Work on the 2025 fee rolls for BBWARM and LWSU continues. The code changes to [WCC 100.07](#) and fee increase approved by County Council in June 2024 as the result of a year-long rate study, require substantial changes to the BBWARM fee roll. Staff are working closely with FLO Analytics and the County's IT department to review and update fee roll decision documents, policies and procedures, and digitize new impervious surface areas. The final draft should be delivered by FLO within the first week of November.
- Staff responded to several reports/inquiries about driveway culverts, soil testing, debris dumping, changes to the fee roll, the Lora Lane tidegate, Terrell Creek sedimentation, and various other drainage issues.

- The October 23rd BBWARM advisory committee meeting was canceled, but a special meeting is scheduled for November 19 to discuss a soft shore protection project and provide updates on a climate vulnerability study, in which Birch Bay will be the case study.
- Staff submitted a non-project State Environmental Policy Act (SEPA) Checklist to PDS in September as a first step toward amending the 2006 Birch Bay Comprehensive Stormwater Plan to include the four Birch Bay subwatershed master plans that were completed between 2013-2023. The SEPA Checklist is under review.
- The Stormwater Division staff meetings were held on September 11 and October 9.
- Staff participated in the annual Sector Watch and Sandbag Training on October 21st in preparation for the flood season.
- Staff participated in the kickoff meeting for the Phase 2 Climate Vulnerability & Shoreline Management Solutions Project on October 22nd.
- The 5-year interlocal agreement between the Birch Bay Water & Sewer District and BBWARM to work cooperatively to plan and construct major infrastructure projects and implement other mutually beneficial programs was approved by County Council on October 25.

Capital Improvement Project Updates

- Charel Terrace Stormwater System Repairs: The FEMA archaeologist is working with the Lummi Tribe to develop a cultural resource management plan. Staff are setting up a reimbursement process with FEMA for the next phase of project work. The JARPA has been submitted and the shoreline permit process is ongoing. The 90% submittal has been received from the consultant. All temporary construction easements have been obtained.
- Holeman Avenue Stormwater Improvements: Colacurcio Brothers, Inc. was selected as the contractor for this project. The pre-construction conference was completed on July 2. The construction project started in September and was considered substantially complete on October 21, 2024.
- Semiahmoo Drive South & Outfall Improvements: The consulting engineer, Tetra Tech, is actively working on the design and permitting. The project is scheduled for construction in 2025, subject to compliance with permit requirements.
- Normar Place Stormwater Improvements: Design work was developed for the project with construction scheduled for summer 2026. Alternative design was developed. An excavation permit to further understand site boundaries and appropriate designs within DAHP regulations was received and a secondary archaeological survey was completed. County staff are working on the private easements required for the project to be completed in the Normar Place community. Staff held a follow-up meeting with the Lummi Tribe for further feedback. The alternative design was rejected by the private property owner and further alternatives are being reviewed by county staff and the design consultant.

CIP Preliminary Design/Analysis

- Lora Lane Drainage & Tide Gate Modifications: Staff will be coordinating project efforts with the Public Works Design and Construction Division and the Birch Bay Leisure Park managers. The design consultant contract is currently being executed with an anticipated notice to proceed date during the first week of November. We have developed a cost-sharing agreement with Birch Bay Leisure Park to avoid conflict and extended community impacts. This cost-sharing agreement has been reviewed and approved by the Leisure Park Board. The tidegate was opened by M&O in October and the culvert under Birch Bay Drive was inspected using an underwater drone.

Maintenance, Small Works and Special Studies

- M&O crews continue to do regularly-scheduled maintenance as needed. They will continue to monitor and clear material from catch basins and trash racks prior to and during storm events.
- The trash racks on the three major Birch Bay outfall pipes were removed on 10/22/24 to avoid them getting clogged with debris and backing up. They will be replaced after the rainy season.
- M&O has removed a damaged trash rack out in Semiahmoo Drive to be rebuilt. As soon as the shop has finished, it will be replaced.

- M&O has finished filter vault maintenance for this year.
- Staff met with representatives from DNR on October 1 to discuss preventative maintenance and stormwater management on their Birch Point properties. Over 500 letters were mailed in September to residents on Point Whitehorn and Birch Point about managing stormwater on coastal bluffs.
- BBWARM's on-call contractor for storm monitoring in Birch Bay (WRS) was called out twice so far this fall to do some preliminary maintenance on the ditches ahead of predicted storm events and once to monitor all the critical infrastructure locations during a storm event (10/19). After call outs, they submit a report on the condition of critical stormwater infrastructure, such as driveway culverts, trash racks, catch basins, control structures, outfalls, etc. Staff are working on getting the trash rack repaired at 8619 Semiahmoo Drive.

Water Quality Monitoring

- In September, only 1 of the 9 sites sampled in Birch Bay did not meet the water quality health standards for fecal coliform bacteria. The other 22 sampling sites were still either dry or stagnant. [Click here](#) to view the latest water quality results for Birch Bay/Terrell Creek or visit the [Whatcom County Public Works' Routine Water Quality Results page](#) for links to online maps and status reports for focus areas throughout Whatcom County.

General Education

- Quarterly e-newsletter: In October, staff sent out the BBWARM e-newsletter to 566 recipients, and it was opened 533 times. The most popular link was for the Whatcom Water Alliance Rebates.
- Staff worked with Shew Design and Whatcom County Health and Community Services on a social media toolkit about household hazardous waste disposal.
- Staff have been posting about household hazardous waste disposal and fall leaves blocking storm drains on social media.
- Staff started working on a request for proposals for a 2025 print and mail contract that will support outreach work.
- Kate started an eight-week training class about motivating behavior change in October.
- Staff ordered more mutt mitt station bags for volunteers.
- Staff are working on reinstalling the mutt mitt station at Birch Bay Drive and Jackson Road. An archeological evaluation will be needed before installation.
- Staff wrapped up this year's "Tag It & Take It" campaign, holding eight pop-up events around the community and gathering over 20 pledges to dispose of household hazardous waste properly. Staff is currently following up with pledgers for feedback to evaluate this year's program as they began planning for next year. Staff promoted proper household hazardous waste (HHW) disposal in the Lake Whatcom and Birch Bay watersheds, beginning with the first of six planned education booths in August. Flyers and stickers for marking HHW products were distributed to HOAs and realtors and included in Sudden Valley and Birch Bay Village Community Club e-newsletters. Social media content was also developed to maintain consistent outreach, aiming to increase awareness of the free Whatcom County Disposal of Toxics facility, clarify HHW types, encourage safe storage, and promote reduced purchasing and safer alternatives.
- 358 racers joined us for the 12th annual Run with the Chums 5k Fun Run on September 14th in Birch Bay. Racers of all ages and speeds ran or walked five kilometers of beautiful roads and trails, with views of the Salish Sea and Whatcom farmland. Junior racers competed in the Smolt Sprint obstacle course. Overall, this year was another successful community celebration of our watershed!

Pet Waste

- Staff wrapped up the 2024 "We Scoop" photo contest with the City of Bellingham staff. The six winners were announced and received their prize packs in October. We will use the cute dog photos in our future outreach materials.
- Staff hosted one meeting with Skagit County on September 24th to facilitate the joint pet waste program coordination. A second internal county staff meeting occurred on October 19th.

- Staff worked with Skagit County staff to submit a presentation abstract for consideration for the 2025 MUNICON conference.
- Since early June, staff completed 34 pet waste outreach events at trailheads and dog parks throughout Whatcom County, wrapping up their summer and fall outreach efforts. These booths successfully educated pet owners on the importance of picking up pet waste and provided helpful scooping supplies. The outreach resulted in 231 pledges and the recruitment of 54 new scooping ambassadors across the community.
- Staff delivered pet waste bags to food banks throughout Whatcom County in October.
- Staff continue to support the pet waste ambassador program by communicating with interested participants and delivering kits.

Habitat Improvements - Neighborhood Native Landscaping Program (NNLP)

- The first NNLP planting party in Birch Bay Village was held on October 18 (Kayak Way cluster). Despite the rain, all the homeowners came out to help their neighbors get plants in the ground. The second planting party is scheduled for November 2 (Snohomish Road cluster). So far it has been a great success!
- Staff attended a meet-and-greet with the new WCC crew in October and gave a presentation on the NNLP program.
- Inspection and maintenance report requests were sent out to all 2023 NNLP participants in October. The report deadline is October 31. A \$500 maintenance rebate is available to anyone who submits inspection reports at year 1, 3 and 5 and completes project maintenance activities to the best of their ability.
- Development of the 2025 NNLP and outreach contracts with the Whatcom Conservation District is underway.

BBWARM Quarterly Financial Report 2024 - Quarter 3		
Year to Date Summary as of September 30, 2024		
2024 Approved Budget	\$ 2,234,502	
2024 SBRs and Continuing Appropriations (obligated contracts)	\$ 592,888	
Total 2024 Budget Authority	\$ 2,827,390	
YTD Expenses	\$ 638,927	
2024 Remaining Budget Authority	\$ 2,188,463	
2024 BBWARM Fee Roll	\$ 791,446	
YTD Fees Received	\$ 475,118	
Remaining Fees Due	\$ 316,328	
Beginning of Year Fund Balance		\$ 2,015,434
End of Q3 Fund Balance		\$ 2,324,684
Quarterly Income July 1 - September 30, 2024		
	Qtr 3 Income	Year to Date
Service Fees	\$ 13,029	\$ 475,118
Service Fee Interest	\$ 134	\$ 2,062
Service Fee Penalties	\$ 128	\$ 1,561

1	SWP #SWLW24-01 Eagleridge Stormwater Improvements: Install a water quality system to treat stormwater from the Eagleridge development.	20-007	61.4	\$ 150,000	REET/LWSU	PE	\$ 175,000	LWSU
						RW		
						CN	\$ 500,000	LWSU
						CN		
2	SWP #SWLW23-06 Austin Court Stormwater Improvements: Install water quality system on the discharge from Austin Court.	20-008	58.8	\$ 70,000	REET/LWSU	PE	\$ 217,375	LWSU
						RW		
						CN		
						CN		
3	SWP #SWLW23-05 Cedar Hills Culvert Replacement: Replacement of culvert damaged during the 2021 flooding event with FEMA funding contribution.	23-001	44.2	\$ 145,000	FEMA/REET/LWSU	PE	\$ 30,000	FEMA
						PE		
						RW		
						CN	\$ 180,000	FEMA
						CN	\$ 25,000	REET
4	Strawberry Point/Lake Whatcom Blvd Stormwater Improvements: System upgrades to improve water quality including vaults, biofiltration swales, and channel restoration	17-001	62.2			PE	\$ 30,000	LWSU
						RW		
						CN		
						CN		
5	Geneva Street & Lake Louise Road Culvert Replacement: Replace culverts along Geneva Street and Lake Louise Road to improve water quality and conveyance	20-010	58.8			PE		
						PE		
						RW		
						CN		
6	Lake Whatcom Boulevard Media Filter Drain (EG-1): Install media filter drain or other water quality system along west side of Lake Whatcom Blvd to improve water quality.	22-006	58.8			PE		
						RW		
						CN		
7	Sudden Valley Stormwater Improvements No. 2: Construct drainage system upgrades and retrofits in the Sudden Valley area of the Lake Whatcom watershed.	22-007	49.0			PE		
						PE		
						RW		
						CN		
						CN		
8	Lake Whatcom Boulevard Water Quality Vault (EG-4): Install a water quality system to remove phosphorus and other pollutants from residential runoff prior to entering Lake Whatcom.	22-008	57.1			PE		
						PE		
						RW		
						CN		
9	Viewhaven Lane Water Quality & Conveyance Improvements: Install water quality systems and improve conveyance near Viewhaven Lane.	20-009	58.8			PE		
						RW		
						CN		
						CN		

10	SWP #SWBB23-02 Charel Terrace Stormwater Outfall Repair: Marine outfall stabilization to protect a bluff slope (emergency repair 2022) and permanent stabilization (2023)	20-011	29.8	\$ 280,000	BBWARM / FEMA	PE	\$ 55,000	BBWARM
						PE	\$ 52,000	FEMA
						RW	\$ 10,000	BBWARM
						CN	\$ 400,000	FEMA
						CN		
11	SWP #SWBB23-04 Semiahmoo Drive South & Outfall Improvements (BP-2, BP-5): Upsize culverts and re-establish roadside ditch on east side of Semiahmoo Drive.	18-009 18-010	50.3	\$ 395,000	BBWARM	PE	\$ 50,000	BBWARM
						PE		
						RW		
						CN	\$ 935,000	BBWARM
12	SWP #SWBB23-06 Lora Lane Drainage & Tide Gate Modifications (TC1-2): Replace tide gate structure and repair embankment; install Type 2 CB and culvert under Birch Bay Dr	18-008	42.5	\$ 140,000	BBWARM	PE	\$ 200,000	BBWARM
						RW		
						CN	\$ 570,000	BBWARM
						CN	\$ 200,000	
						CN	\$ 600,000	ROAD FUNDS
13	SWP #SWBB23-05 Normar Place Stormwater Improvements (BP-1): Upsize pipes, replace CBs and install energy dissipater at pipe outfall on Normar Place	19-004	52.0	\$ 160,000	BBWARM	PE	\$ 256,000	BBWARM
						PE		
						RW	\$ 40,000	BBWARM
						CN		
						CN		
14	SWP #SWBB23-07 Birch Point Road Stormwater & Outfall Improvements (BP-3, BP 6): Upsize culverts and replace outfall to the beach to reduce bluff erosion	21-001	33.3			PE	\$ 300,000	BBWARM
						RW	\$ 20,000	BBWARM
						CN		
						CN		
						CN		
15	SWP #SWBB23-08 Richmond Park Stormwater Improvements (SH-2): Address drainage concerns in Richmond Park by re-routing stormwater down Shintaffer Road to a Birch Bay outfall	22-010	42.5			PE		
						RW		
						CN		
						CN		
						CN		
16	Roger's Slough Drainage Improvements: Re-grade ditches, install new culverts, and replace existing pipe with concrete box culvert under Birch Point Road into Roger's Slough	23-002	70.2			PE		
						RW		
						CN		
						CN		
17	Birch Bay Village Drainage Improvements: Upsize existing culverts and install new pipe and catch basins in Birch Bay Village to reduce flooding	23-003	52.9			PE		
						RW		
						CN		
						CN		
18	Bay Ridge Estates Drainage Improvements: Upsize and install new culverts and CBs on Birch Point Road and Selder Road to reduce flooding	23-004	46.1			PE		

						RW		
						CN		
						CN		
19	Wooldridge Ave and Sunset Drive Stormwater Improvments (TC-2): Improve drainage system to reduce local flooding and incorporate water quality treatment.	13-007	52.2			PE		
						CN		
						CN		
						CN		

Page 1

WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT 2025-2030 SIX-YEAR WATER RESOURCES IMPROVEMENT PROGRAM EXHIBIT A

Item No.	Project Description	Database ID No.	BES	Previous Expenditures		2025		
				Amount	Source	Phase	Amount	Source
RIVER & FLOOD								
20	Truck Road Bank Stabilization (720008): Phase 1 emergency construction in 2022 and Phase 2 road rehab and environmental mitigation in 2024. Final Planting 2025	20-003	59.4	\$ 72,000	FCZD	PE	\$ -	FCZD
				\$ 2,600,000	FEMA	PE	\$ -	FEMA/State
				\$ 144,000	State	PE	\$ -	Roads
				\$ 72,000	Roads	CN	\$ 1,400	FCZD
						CN	\$ 54,600	FEMA/State
						CN	\$ 1,400	Roads
21	Devries Levee Improvements: Widen and establish full crest width and backslope levee (SWIF project). All staff time; Diking District to construct.	19-001	49.3			PE	\$ 10,000	FCZD
						CN		
22	Cougar Creek and Neevel Levee Improvement (720010): Stabilize oversteepened section of levee (SWIF project) with new flood gate and restoration (FLIP project)	16-008	59.4	\$ 166,000	FCZD	PE	\$ 30,000	FCZD
				\$ 117,000	NOAA grant			
				\$ 100,000	FbD grant			
						CN	\$ 1,324,000	FbD grant
						CN	\$ 386,235	EQUIP
						CN	\$ 537,369	FCZD
23	Acme Woody Revetment Repair (723008): FEMA funded repair to Acme Early Chinook Restoration Project	23-005	67.7	\$ 59,080	FEMA	PE	\$ 1,250	FCZD
				\$ 3,282	State	PE	\$ 23,750	FEMA/State
				\$ 3,282	FCZD	CN	\$ 96,750	FCZD
						CN	\$ 888,250	FEMA/State
24	Bertrand Creek Levee Stabilization (721002): Restore right and left levee prisms and install bank protection (SWIF project)	16-005	54.4	\$ 34,000	FCZD	PE	\$ 17,500	FCZD
				\$ 9,000	DK4	PE	\$ 7,500	DK4
						CN	\$ 101,500	FCZD
						CN	\$ 43,500	DK4

25	Upper Hampton Levee Improvements: Widen levee crest and flatten backslope at two sites and seepage at retaining wall deficiencies (SWIF project)	16-006	70.4	\$ 6,000	LE Subzone	PE		
					Under Lynden project	RW		
						CN		
26	Abbott Levee Protection and Improvement (718010): Interim erosion protection measures for levee & road (Ph. 1); Extend and realign upstream end of levee (Ph. 2 - SWIF project)	16-007	70.4	\$ 654,000	FCZD	PE	\$ 275,500	FCZD
				\$ 445,000	Roads	PE	\$ -	Roads
						RW		
						RW		
27	Dahlberg Wetland Mitigation Site (719006): Develop advanced mitigation site for future impacts from Flood and Road projects	20-004	66.3	\$ 882,000	FCZD	PE	\$ 195,000	FCZD
						CN		
						CN		
28	Hudson Rd Bridge No. 132 Bridge Replacement (722006): Alternatives analysis for bridge replacement as required by WDFW permit condition	22-001	64.5	\$ 50,000	FEMA/State	PE	\$ 323,000	FEMA/State
				\$ 2,500	FCZD	PE	\$ 8,500	FCZD
						PE	\$ 8,500	Roads
29	Glacier-Gallup Alluvial Fan Restoration (718007): Remove all or part of Glacier Creek levee and construct setback levee along Gallup Creek. Interim revetment fix in 2023	18-006	88.9	\$ 438,000	FCZD	PE	\$ 100,000	FCZD
				\$ 937,000	FbD grant	PE	\$ 400,000	FbD grant
						RW	\$ 120,000	FCZD
						RW	\$ 480,000	FbD grant
						CN		
						CN		
30	Ferndale Levee Improvement (719008): Reconstruct and realign Ferndale and Treatment Plant Levees to improve level of protection and address deficiencies	07-104	68.9	\$ 229,000	FCZD	PE	\$ 69,500	FCZD
				\$ 779,000	FbD grant	PE	\$ 556,000	FbD grant
						PE	\$ 69,500	Ferndale ILA
						RW	\$ 25,000	FCZD
						RW	\$ 200,000	FbD grant
						RW	\$ 25,000	Ferndale ILA
						CN		
						CN		
						CN		
31	Fish Camp (723005): Design and log procurement in 2025, Phase 1 Construction in 2026, Phase 2 (incl berms) Construction in 2027.	24-001	71.9	\$ 11,000	FCZD	PE	\$ 15,000	FCZD
						PE		
						RW		
						CN	\$ 880,000	21/23 FbD grant
32	Floodplain Acquisition: Acquire key properties for future levee reconfiguration to reduce risk and improve habitat	07-002	79.6			RW/CN	\$ 1,409,000	FCZD
						RW/C	\$ 5,636,000	FbD grant

						N		
						RW/C N	\$ 2,700,000	FEMA/CBDG
						RW/C N	\$ 630,000	Commerce grant
33	Marietta Acquisition: Acquire properties in repetitive flood loss area and remove structures	07-002	79.6			RW		
						RW	\$ 55,000	
						CN		
						CN		
34	High Creek Sediment Trap (720005): Annual clean out of sediment traps	22-005	58.8			CN		
						CN	\$ 115,000	FCZD
35	Emergency/New Projects: Typically repair projects that result from new damage, as needed	08-003	Var es			PE	\$ 25,000	FCZD
						RW		
						CN	\$ 50,000	Local sponsor
						CN	\$ 350,000	FCZD
NOTES								
Numbers in italics are placeholders for projects still being conceived. Previous expenditures includes work contracted in 2024 that will continually appropriate into 2025. Note 1: Estimated total project cost includes work done by U.S. Army Corps of Engineers (USACE) and funded directly by USACE.								