

**WHATCOM COUNTY
PUBLIC WORKS DEPARTMENT**

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MEMORANDUM

TO: The Honorable Jack Louws, Whatcom County Executive, and
Honorable Members of the Whatcom County Council

THROUGH: Jon Hutchings, Director

FROM: Gary S. Stoyka, Natural Resources Program Manager

DATE: June 18, 2019

RE: June 25, 2019 Council Surface Water Work Session

Please refer to the proposed agenda below for the next Surface Water Work Session. Additional supporting documents may be distributed at or before the meeting.

AGENDA

Date:	Tuesday, June 25, 2019		
Time:	10:30 a.m. to 12:00 p.m.		
Place:	Civic Center Garden Level Conference Room		
Time	Topic	Council Action Requested	Background Information Attached
10:30 AM – 11:00 AM	Watershed Planning Update	Discussion	June 12, 2019 WRIA 1 Management Team Brief Sheet No. 7
11:00 AM – 12:00 PM	Homeowners Incentive Program Update	Discussion	None

If you have questions, please feel free to call me at (360) 778-6218.

cc:	Mike McFarlane	Joe Rutan	Paula Harris	John Wolpers	Mike Donahue
	Beth Bushaw	Jeff Hegedus	John Thompson	Kraig Olason	Erika Douglas
	Tyler Schroeder	Josh Fleischmann	Karen Frakes	Jennifer Schneider	Jill Nixon
	Sue Blake	Roland Middleton	Dana Brown-Davis	Atina Casas	Cathy Craver
	George Boggs	Ryan Ericson	Lonni Cummings	Kristi Felbinger	Mark Personius

BRIEF SHEET AGENDA ITEM #7

MEETING: WRIA 1 Management Team
MEETING DATE: June 12, 2019
AGENDA ITEM: Agenda Item #7 Regional (WRIA1-Wide) Water Supply Plan, Strategy 3 in WRIA 1 Watershed Management Board Work Plan
OUTCOMES: Information; Discussion; Feedback

The purpose of this agenda brief sheet is to provide background information about the topic, recommendations, if applicable, and desired outcome.

Agenda Outcome:

Approval ____ Agreement ____ Direction ____ Feedback X Information/Discussion X

Background:

- The Regional (WRIA1-Wide) Water Supply Plan is Strategy 3 in the WRIA 1 Watershed Management Board's Five Year Work Plan approved in August 2018 (attached pages from work plan).
- Consistent with the approach described on page 6 of the WRIA 1 Watershed Management Board's Work Plan (WRIA 1 Watershed Management Board 2018-2023, August 1) for initiating the implementation of strategies, a more detailed scope of work and timeline for Strategy 3 has been drafted (attached).
- The draft scope of work builds on the information in the WRIA 1 Watershed Management Board Work Plan and provides additional information about the coordination of the work under the WRIA 1 structure, the work to be completed, and the timeline.
- As a Near-Term Action (NTA) in the 2018-2022 Action Agenda for Puget Sound, the [Regional \(WRIA1-Wide\) Water Supply](#) Plan has received partial funding through the National Estuary Program (NEP). The draft scope of work attached will be used to develop the contract and project plan for that funding source.

Discussion:

- Discuss coordination approach for initiating implementation.

Outcome:

- Discussion and feedback

292 groundwater model include receiving and operating the model, which are
293 reflected in the tasks outlined below, and expanding it to other areas of
294 WRIA 1 such as the South Fork Nooksack Watershed where a groundwater
295 model has been proposed by Nooksack Tribe in partnership with USGS.

296 **Total Strategy 2 Planning Level Budget through 2020: \$85,000**

297 **Work Products:** Operation of WRIA 1 groundwater model; Options for
298 expanding groundwater model

299 Task 1: **Coordinate technical review of groundwater model** within the
300 WRIA 1 framework and identify additional groundwater monitoring
301 needs for long term model resolution, if any.

302 Timeline: December 2018-January 2019

303 Task 2: **Identify options and select preferred option** for managing the
304 coupled surface/groundwater model including operation of the
305 model and updating data sets as information becomes available
306 that will result in an increase in the resolution of the model output,
307 and after identifying how the model will be used and key
308 management questions for operating the model.

309 Timeline: August 2018-December 2018

310 Task 3: **Identify needs and long term funding** for managing the coupled
311 surface/groundwater model. Costs should include but is not limited
312 to staffing, updating data as needed, making information available
313 to the public and other entities, and calibrating the model when
314 appropriate.

315 Timeline: August 2018-January 2019

316 Task 4: **Implement recommendation** for managing the coupled model. This
317 task is dependent on Tasks 2 and 3 of this Strategy.

318 Timeline: Initiate implementation February 2019

319 Task 5: **Expand groundwater modeling to other areas of WRIA 1** starting
320 with the South Fork Nooksack Watershed model proposed by
321 Nooksack Tribe in partnership with USGS.

322 Timeline: 2019-2022

323 **Strategy 3: Regional (WRIA-Wide) Water Supply Plan**

324 Description: This Strategy was originally identified in the 2010 Lower
325 Nooksack Strategy but not implemented due to lack of funding support.
326 Nonetheless, there remains a need for a WRIA 1-wide water supply plan
327 that establishes a framework to address water supply needs beyond the
328 WADOH regulatory framework of the Whatcom County Coordinated Water
329 System Plan (CWSP) and that is consistent with the geographic extent of
330 proposed approaches to settle water rights. Under this Strategy, the

04-11-2019

Explanations of Changes

Line 296: Added "Planning Level" for consistency with other text in document.

331 regional water supply plan will integrate the 2017 updated CWSP with other
 332 out-of-stream and instream water needs, in context with land use,
 333 economic viability, and ecosystem recovery. **Consider climate change**
 334 **impacts on water quality and quantity as it relates to water supply.**

335 **Total Strategy 3 Planning Level Budget through 2020: \$225,000**

336 **Work Product: Regional Water Supply Plan**

337 Task 1: **Coordinate with technical work groups and staff teams, ~~and~~**
 338 **Planning Unit** for drafting and providing feedback and review of
 339 water supply plan components. Review of plan components will be
 340 coordinated through the WRIA 1 framework.

341 Timeline: **2019-2020 ~~2018-2020~~**

342 Task 2: **Consolidate and quantify water availability, water use, and water**
 343 **supply needs for out of stream needs** (current and projected, **which**
 344 **will consider climate change**) including evaluating water right data
 345 base for opportunities. This task is anticipated to focus initially in
 346 pilot areas for Strategy 4 (Drainage Based Management Planning).

347 Timeline: **2019-2020**

348 Task 3: **Compile existing information on instream water needs and**
 349 **identify monitoring priorities** to incorporate in Strategy 7. This task
 350 is anticipated to initially focus in pilot areas for Strategy 4 (Drainage
 351 Based Management Planning).

352 Timeline: **2019-2020**

353 Task 4: **Identify and support water supply and management research,**
 354 **facilitate data collection, and close data gaps.** This includes
 355 identifying priority needs for monitoring effectiveness of water
 356 supply management approaches and solutions. This task will be
 357 done in conjunction with Strategies 7 and 4, and related information
 358 from the ESSB 6091 update (Strategy 6), as applicable.

359 Timeline: **2019-2020 ~~December 2018~~**

360 Task 5: **Identify, evaluate, and support solutions for meeting water supply**
 361 **needs.** This will be a collaborative and coordinated approach with
 362 other efforts evaluating solutions in/for related plans and studies
 363 (e.g., Drought Plan, grants addressing water supply, **climate change**
 364 **plans or studies**, etc.), and in conjunction with Strategies 4 and 6
 365 Drainage Based Management Planning and WRIA 1 Watershed
 366 Management Plan (ESSB 6091 update), respectively. Gaps in
 367 solutions will be identified, where applicable.

368 Timeline: **2019-2020**

04-11-2019

Explanations of Changes

Line 333-334: reference to climate change added based on Nooksack Tribe comments 2/21/19.

Line 335: Added "Planning Level" for consistency with other text in document.

Lines 337-338: Per February 20 Management Team meeting, removed reference to Planning Unit because lines 225-228 provide for receiving feedback and input from committees, public, and Planning Unit as applicable for each of the strategies. The exception noted is Strategy 6.

Lines 343-344: reference to climate change added based on Nooksack Tribe comments 2/21/19.

Lines 363-364: reference to climate change added based on Nooksack Tribe comments 2/21/19.

Task timelines added for consistency

369 Task 6: **Provide water supply information for connecting water availability**
 370 **(e.g., forestry and agriculture) to land use and habitat.** The
 371 outcomes of Tasks 2-5 will be used to improve connections between
 372 where water is available and existing land use. Information will be
 373 coordinated with Strategies 4 through 6, and will be used to
 374 integrate water supply needs into other planning efforts (e.g.,
 375 Comprehensive Plans, Integrated Floodplain Planning, and other
 376 watershed-scale plans).

377 Timeline: 2020-2021

378 Task 7: **Draft and Final WRIA 1 Water Supply Plan** that consolidates
 379 information from Tasks 2-6 into a WRIA 1 Water Supply Plan that
 380 includes instream and out of stream water needs and identifies
 381 ranges of solutions. Review and feedback on the draft plan will be
 382 coordinated ~~with technical staff, work groups, WRIA 1 Planning~~
 383 ~~Unit, WRIA 1 Management Team, and other interested~~
 384 ~~parties~~ through the WRIA 1 framework prior to a final plan.
 385 Partnerships with WWIN, WSU, WCD and others will be used for
 386 sharing information and to support outreach related to water
 387 supply planning.

388 Timeline: 2020-2021

389 **Strategy 4: Drainage Based Management Planning**

390 Description: Drainage-based management planning (DBMP) is a
 391 recommendation in the WRIA 1 Watershed Management Plan. The concept
 392 is a planning approach scaled to the drainage level and that will consider
 393 five elements – water quality, water supply, instream flow, fish habitat, and
 394 accountability. Under this approach, targets for each of the elements will
 395 be developed and agreed to among the affected parties. A pilot area will be
 396 identified for implementing the DBMP approach. Based on effectiveness of
 397 the approach in the pilot area, additional sub-basins will be identified to
 398 continue the DBMP. This Strategy is inextricably linked to all of the
 399 Strategies in this 2018-2023 work plan and is expected to involve identifying
 400 and coordinating with a sub-lead for each sub-basin. The approach is similar
 401 to an approach introduced and presented to stakeholders by Lummi Nation
 402 and is envisioned as a mechanism to help facilitate the resolution of state
 403 and federal/tribal water rights in WRIA 1 .

404 **Total Strategy 4 Planning Level Budget through 2020: \$112,500**

405 **Work Products:** Data synthesis and analysis technical memo; subbasin goals
 406 for water supply, water quality, instream flows, and habitat;
 407 Implementation Plan and Agreements for Drainage-Scale Water
 408 Management

04-11-2019

Explanations of Changes

Line 370: Nooksack Tribe comments 2/21/19

Line 382-384: removed references for consistency and used same language as in Task 1, Lines 339-340.

Line 404: Added "Planning Level" for consistency with other text in document.

**WRIA 1 Watershed Management Board 2018-2023 Work Plan,
Strategy 3: Regional (WRIA-Wide) Water Supply Plan Scope of Work**

This document is a working document for a “phase 1” scope of work for Strategy 3 of the WRIA 1 Watershed Management Board’s 5-Year Work Plan. A “phase 1” is intended to scale the tasks from a WRIA 1-wide effort to pilot areas using funds granted through the WDFW for implementing near term actions included in the 2018-2022 Action Agenda for Puget Sound¹ and leveraging other grants and efforts underway that are directly related to Strategy 3, Regional (WRIA-Wide) Water Supply Plan (RWSP). This scope of work including tasks, subtasks, work products, and timelines are subject to change to reflect WRIA 1 Management Team and technical staff input, feedback by entities, organizations, Whatcom County Committees, and public.

A. Purpose

The purpose of the Regional² (WRIA1-Wide) Water Supply Plan (RWSP) is to establish a framework to address water supply needs for instream and out of stream uses. The RWSP is not replacing the Whatcom County Coordinated Water System Plan that is prepared under the Washington Department of Health regulatory framework but is integrating it with other out-of-stream water uses and instream water needs, and in context with land use, water quality, habitat, and stream flows.

B. Phase 1 Project Description

Scale tasks outlined in Strategy 3, Regional (WRIA1-Wide) Water Supply Plan, of the 2018-2022 WRIA 1 Watershed Management Board (WMB) Work Plan to two pilot areas, and implement tasks. The proposed pilot areas should be selected based on one or more of the following reasons:

- Data availability
- Leverages other ongoing or proposed activities and funding
- Supports and/or advances other strategies in the WRIA 1 Watershed Management Board 5-year Work Plan

Outcome of the Phase 1 Scope of Work is a water supply plan for the pilot areas that quantify current and future out-of-stream water supplies and identifies management solutions that address those needs. The pilot area plans will be rolled up into the regional, WRIA 1 Wide water supply plan, which will be a separate, future scope of work.

Implementation of the tasks outlined in this scope of work will be completed under the framework of the WRIA 1 WMB’s multi-year work plan and structure. As identified in the work plan, the PUD No. 1 is the administrative lead for advancing the RWSP strategy. Individual tasks or subtasks outlined below may be undertaken by other entities or consultants with the PUD No. 1 responsible for coordinating the overall management. Subcontracts, letters of commitment, Interlocal agreements, and/or

¹ The Regional (WRIA1-Wide) Water Supply Plan was submitted as a 2018 near term action (NTA) for inclusion in the 2018-2022 Action Agenda for Puget Sound. Through the NTA review process, it was evaluated and included in the referenced Action Agenda. Funding for NTAs is EPA, National Estuary Program funding administered through Puget Sound Strategic Initiative Leads.

² Regional defined as Water Resource Area 1 (WRIA1) within Whatcom County boundaries.

memorandum of understandings may be developed with other entities, organizations, and/or consultants for individual tasks or subtasks. Tasks and/or subtasks may be implemented concurrently; they are not necessarily sequential (e.g., feedback and communication tasks will be ongoing).

Implementing this Phase 1 scope of work will also support information needs for Strategy 4, Drainage Based Management Planning, 2018-2022 WRIA 1 Watershed Management Board Work Plan, August 1, 2018).

C. Scope of Work Tasks and Deliverables

TASK 1: Process for Coordinating Tasks and Identifying Pilot Areas

- 1.1 The coordination process will be under the WRIA 1 Management Team as the administrative team of the WRIA 1 Watershed Management Board. Technical staff of the entities represented in the Local Government and Co-Manager Caucuses of the WRIA 1 Watershed Management Board will provide technical input to the tasks with the WRIA 1 Management Team providing the overall guidance for implementation. Other technical, planning, administrative, and/or management staff will be invited to participate as identified for purposes of addressing unique characteristics of the pilot areas. Staff involved in the coordination will have expertise in or be involved with water supply, fisheries, flows, habitat, water quality, agricultural needs, and land use (i.e., factors associated with instream and out of stream water uses/needs). Staff and Management Team members will be responsible for communicating the process internally within their organization, with their associated committees and boards, staff teams, and/or work groups and with their councils and commissions.

Timeline: June 30, 2019

Product/Outcome: Technical staff identified for coordinating process and reporting to WRIA 1 Management Team

- 1.2 Criteria proposed for selecting pilot areas include:
 - a. Available data
 - b. Ability to leverage existing funds
 - c. Ability to leverage efforts underway that relate directly to the tasks identified in this scope of work
 - d. Competing water needs
 - e. Nexus with water quality and flood management
 - f. Nexus with issues identified in the Stream Restoration Act (ESSB 6091)

Based on the criteria, the proposed pilot areas include the Drayton and Bertrand Watersheds. The proposed pilot areas will be confirmed by the Management Team as part of Task 1.

Timeline: June 30, 2019

Product/Outcome: Confirm Pilot Areas

- 1.3 Convene technical staff and establish responsibilities and confirm project plan, milestones, and timeline.

Timeline: July 15, 2019

Product/Outcome: Project Plan

TASK 2: Data Compilation and Synthesis³

2.1 Convene technical staff to identify type/categories of data for documenting existing and future instream and out of stream water uses and needs and sources for the information including but not limited to:

- Water right permits and sources (i.e., ground or surface water)
- Future water supply needs by type of use and source over next 50 years in 10 year increments.
- Stream flows
- Fish presence
- Habitat conditions
- Land use
- Water service area boundaries and water use projections⁴

Timeline: July 30, 2019

Product/Outcome: List of publications and data sets relevant to existing and future instream and out of stream water uses

2.2 Subcontract and/or Memorandums of Agreement for compiling and synthesizing data identified in 2.1, and identifying data gaps, if any⁵. Anticipated consolidation and synthesis tasks include but are not limited to:

- Inventorying existing water right permits by source of water to identify surplus water, if any, and additional water supply needs
- Synthesizing future water supply needs in the pilot area(s) over next 50 years in 10 year increments including seasonal impacts based on climate change projections for domestic, industrial, commercial, municipal uses
- Projecting water use over next 50 years in 10 year increments for agriculture including potential seasonal variations resulting from climate change projections.
- Summarizing stream flow information, identifying data gaps, and provide recommendations for priority stream flow gage locations, if applicable.
- Summarizing current and historic fish presence in the pilot area(s).
- Summarizing current and historic habitat conditions in the pilot area(s).

Timeline: September 30, 2019

³This task also supports WRIA 1 Watershed Management Board 2018-2022 Work Plan, Strategy 4, Drainage Based Management Planning.

⁴The source for this information will be the most recently approved Whatcom County Coordinated Water System Plan.

⁵This subtask may be implemented by multiple entities and/or consultants through Memorandum of Agreements and/or contracts, as applicable.

Product/Outcome: Data synthesis technical memorandum(s) including identifying data gaps and recommendations.

- 2.3 Synthesize and summarize data from 2.2 with land use and water service area boundaries (2.1) to characterize current and projected water use for both instream and out of stream needs in context with land use and water service boundaries. The intent is to identify where water is available and where it is needed to inform water management solutions including opportunities for improving habitat and stream flows.

Timeline: October 31, 2019

Product/Outcome: Technical Memorandum including synthesis of data, maps, data sets, findings, and recommendations, if applicable.

TASK 3: Water Supply/Management Solutions

- 3.1 Identify and evaluate potential future water supply source alternatives that could be developed to meet future water requirements. Although this subtask is not limited to approaches identified through the 2018 WRIA 1 process to address ESSB 6091 (Stream Restoration Act), it is expected that it is a significant source of information for alternatives to further evaluate to address water needs identified through Task 2. The alternatives will be evaluated for technical, economic, regulatory, and political feasibility.

Timeline: November 30, 2019

Product/Outcome: Technical memorandum of alternatives and evaluation outcomes

- 3.2 Identify early actions either for full implementation or as a pilot to further evaluate feasibility at a broader scale. Actions identified as “early action” are ready to go and include implementation plan that includes clear objectives, performance measures, budget to implement, administer, and monitor, source of funding, implementing entity, and an effectiveness monitoring plan.

Timeline: Ongoing as tasks identify and refine information in the pilot area(s)

Product/Outcome: Implementation plan for early actions

TASK 4: Support/Facilitate Data Collection⁶

- 4.1 Facilitate development of monitoring plan to fill priority data gaps identified in Task 2, and primarily 2.2. Design a monitoring plan surrounding the implementation of management tools that provides baseline conditions and tracks effects of project implementation. The monitoring plan(s) will include costs, locations, and implementing agency.

Timeline: December 31, 2019

Product/Outcome: Monitoring Plan

TASK 5: Phase 1 Scaled Water Supply Report

- 5.1 Consolidate information from Tasks 1-4 into a Phase 1 report for the pilot area(s) that includes a characterization of instream and out of stream water uses, current and future water needs,

⁶This task also relates to WRIA 1 Watershed Management Board Work Plan, Strategy 7, Integrated Monitoring Program.

identifies ranges of solutions, costs to implement, and monitoring plan for effectiveness of projects. This report will be rolled up into the Regional (WRIA 1-wide) Water Supply Plan (Task 6) that is the intended outcome for Strategy 3 in the WRIA 1 Watershed Management Board 2018-2022 Work Plan. While the “phase 1” focus on pilot areas will provide information on water supply needs and management solutions, it is not intended to be a stand-alone water supply plan and is part of the larger water supply framework.

Timeline: Draft Report January 31, 2020; Final Report February 28, 2020

Product/Outcome: Draft and Final Phase 1 Project Report

Task 6: Regional (WRIA1-Wide) Water Supply Plan

- 6.1 While tasks 2-4 are focused primarily in pilot areas, the process of implementing those tasks is intended to inform the WRIA-wide water supply planning as outlined in Strategy 3 of the WRIA 1 Watershed Management Board 2018-2022 Work Plan. This means that as data is compiled and synthesized, to the extent possible, databases will be setup and references documented that are applicable to completing the WRIA 1 Wide Water Supply Plan.
- 6.2 Consider modifications, if any, from the Pilot Area processes (Tasks 1-4) for purposes of setting the scope to coordinate the Regional (WRIA 1-Wide) Water Supply Plan process in the remaining areas of WRIA 1, which would be completed in 2020-2021.

● Timeline: a. January 30, 2020 Scope of Work for WRIA 1-Wide Framework and Tasks; b. December 2021 for Regional (WRIA 1 Wide) Water Supply Plan

Product/Outcome: Scope of Work for WRIA1-Wide Framework and Tasks; Draft and Final Regional (WRIA 1 Wide) Water Supply Plan

TASK 7: Outreach and Engagement

- 7.1 It is anticipated that the members of the WRIA 1 Management Team and technical staff and others involved in Tasks 1-6 will be communicating internally with their legislative, policy, management, committees, and/or other individuals or boards on an ongoing basis, and receiving feedback and guidance on tasks and subtasks as they move forward. The coordinating process and task approach outlined in subtask 1.1 is intended to ensure that the Local Government Caucus, which includes the Ag Water Board as Ex-Officio, and the Co-Manager Caucus of the WRIA 1 Watershed Management Board are informed as the project advances, it is not creating a new process or new committees, and it is consistent with the approved WRIA 1 Watershed Management Board 2018-2022 Work Plan.
- 7.2 The WRIA 1 Planning Unit will be updated on a regular basis with opportunities for feedback on draft work products.
- 7.3 The WRIA 1 Staff Teams will be involved in providing input as tasks move forward. Technical staff participating in the coordination of the tasks in the scope will be communicating with the established staff teams as needed for input.
- 7.4 Draft work products will be posted to the WRIA 1 Project website with public opportunities for feedback on draft products.

- 7.5 Opportunities will be pursued with Whatcom Watersheds Information Network (WWIN) to provide public outreach and engagement as appropriate such as through the WWIN/MRC Speaker Series or other events.

Timeline: Ongoing throughout the Phase 1 Project

Discussion
Draft