

Lower Skagit River Tributaries Temperature Implementation Strategy

Examining TMDL goals, implementation strategies, future efforts

July 31st, 2019

Agenda

- Introductions and timeline for development of the **Strategy**
- Brief TMDL History
- Detailed discussion topic #1: What are the top five actions should the plan include?
- Break Time
- Detailed discussion topic #2- Examine the action list, discuss successes and barriers.
- If time allows: Scale of efforts - All impaired reaches or individual watersheds?



Meetings and Timeline

- Proposed meeting structure and timeline for development of the strategy
 - Three meetings – July, August, and September
 - Approximately three weeks between meetings.
 - PSP meeting on October 1st or 2nd.
 - Ecology will prepare a summary of each meeting
 - Contact between meetings



Meeting activities

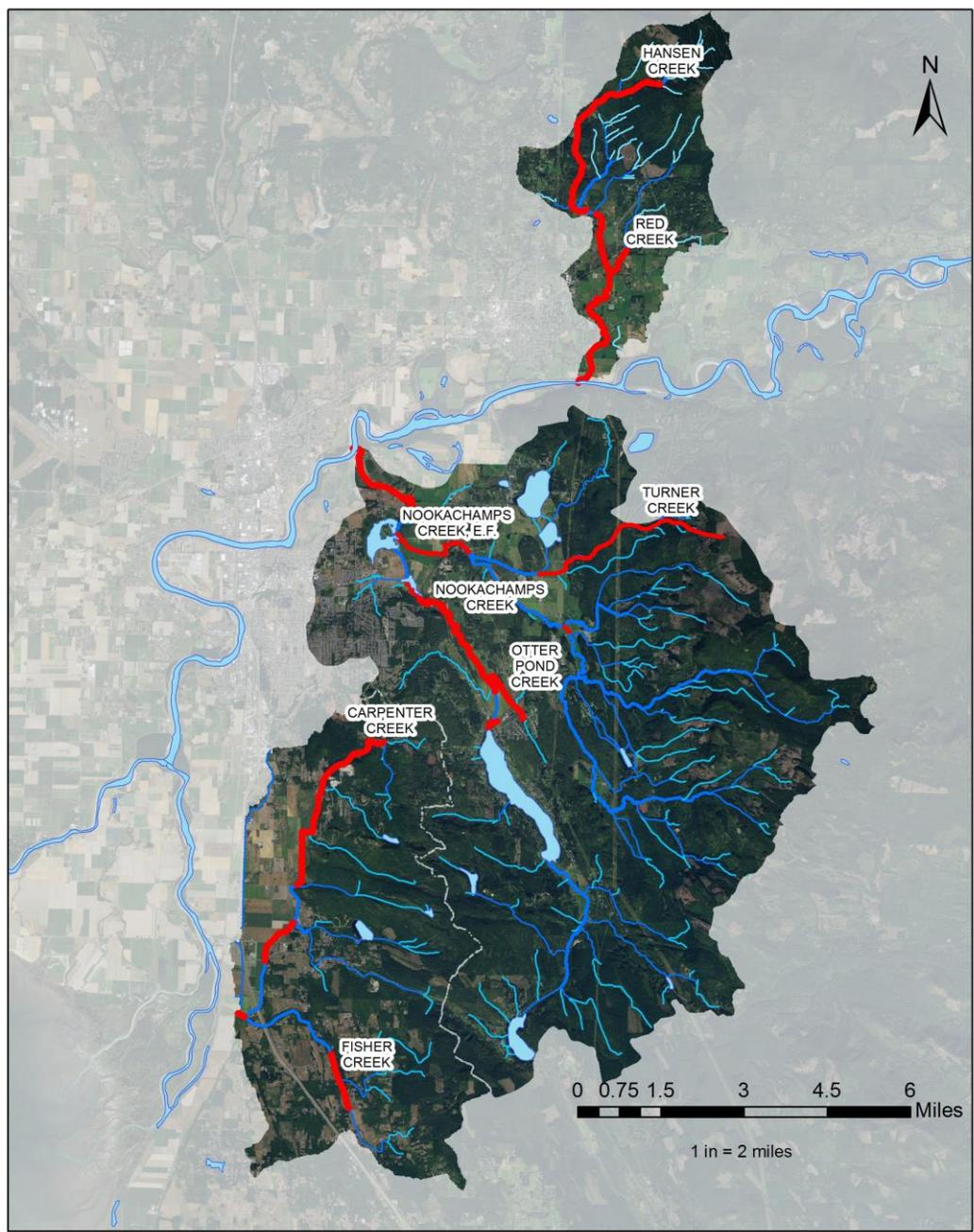
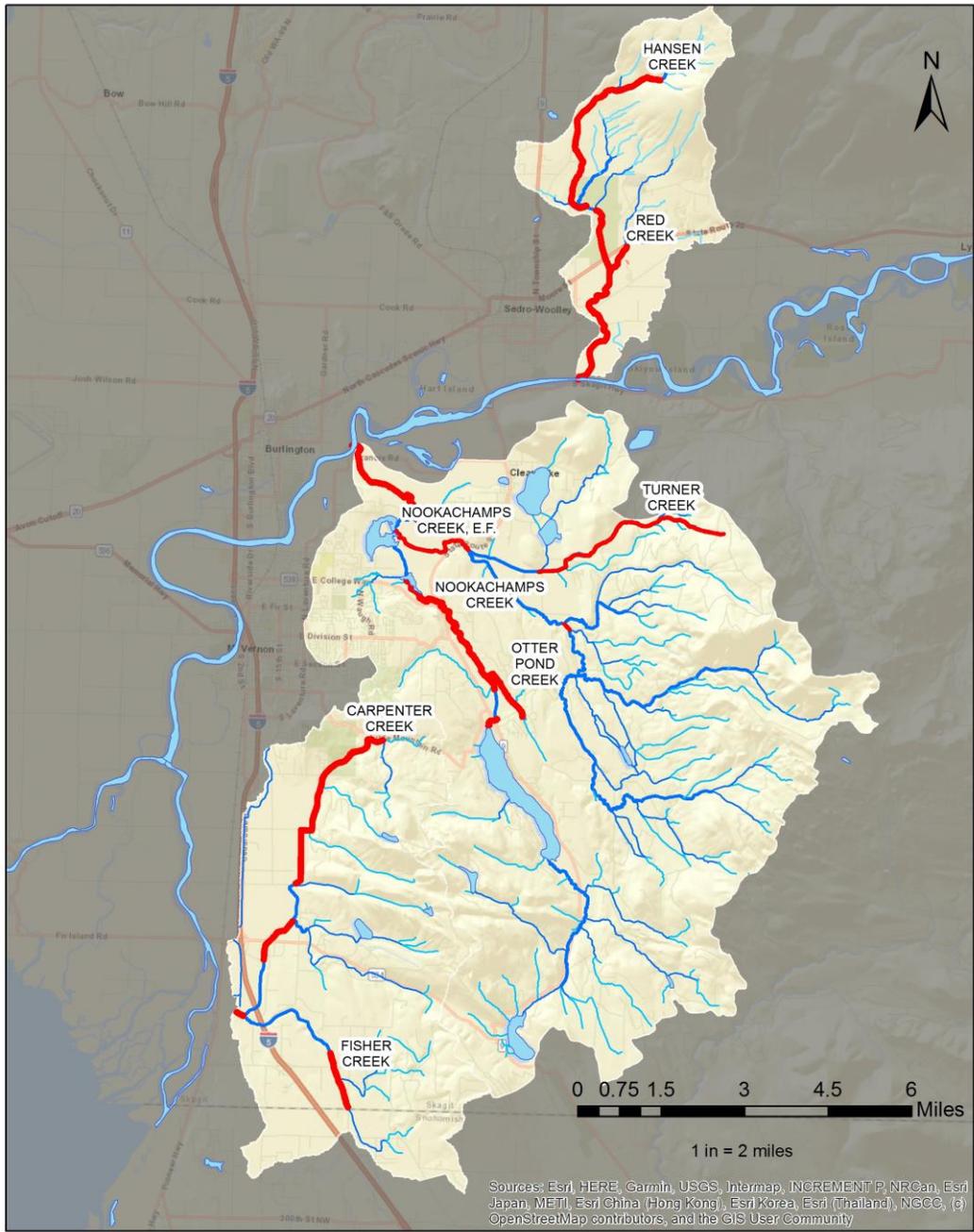
- The activities are designed to collect information and look for common topics or ideas.
- Results will frame discussion
 - Assist in guiding future meetings
 - Used to develop the **Strategy**



Open dialog and discussion

- Be Respectful
- Please give others the freedom to speak candidly and express ideas.
- Please don't interrupt





Introductions

- Who are you?
- What is your goal?
- What is a key point or message from you or your organization's perspective?



TMDL History

- Lower Skagit River Tributaries Temperature TMDL Study (Technical report) - January 2004
- Lower Skagit River Tributaries TMDL Water Quality Improvement Report (Final TMDL) - 2008
- Focused on 303d temperature impairments in eight tributaries

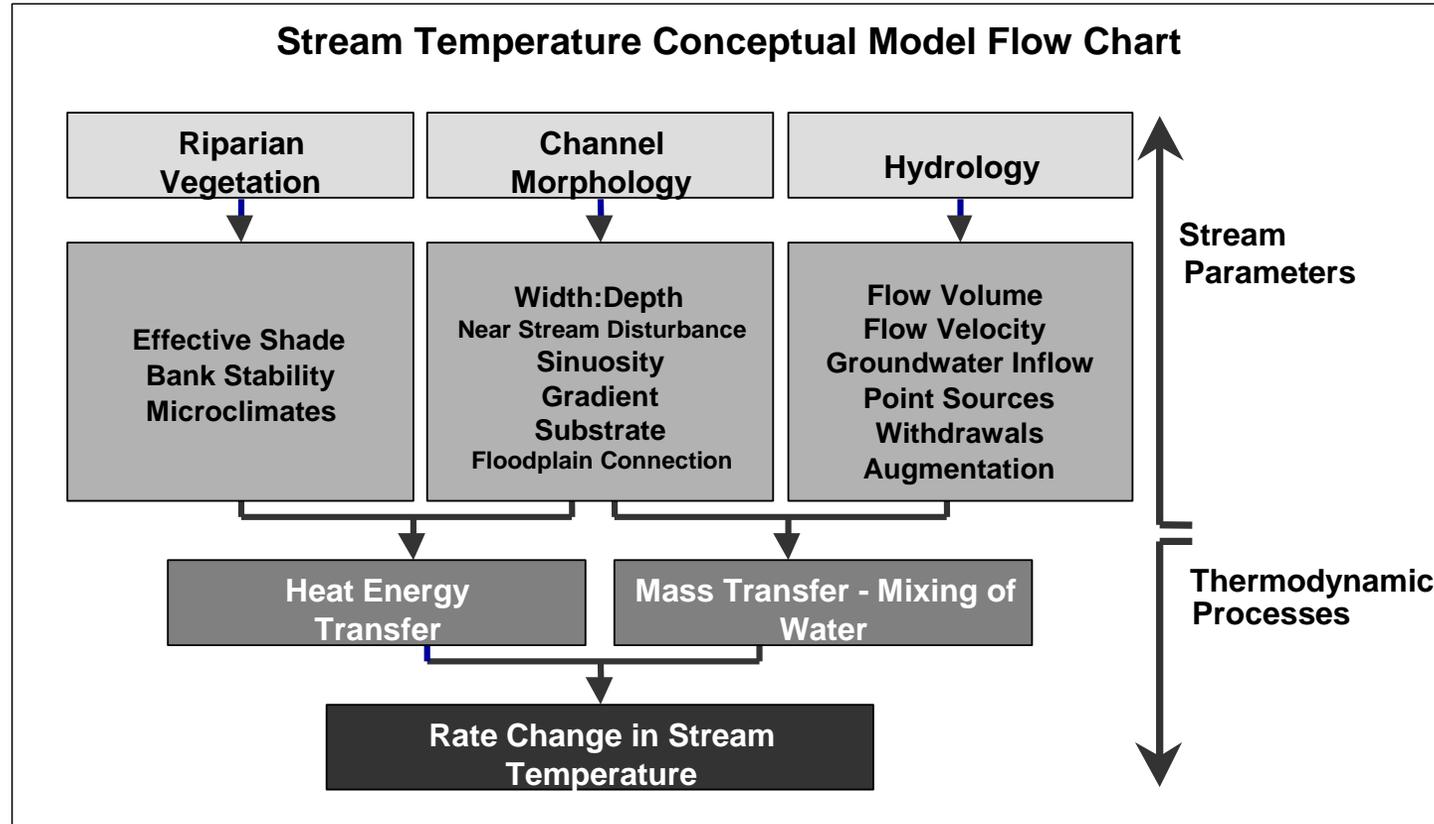


TMDL Development highlights

- TMDL data collected in 2001 and 2002
- Study tools
 - GIS data
 - Shade model to estimate effective shade on mainstems of tributaries
 - QUAL2Kw model to calculate heat budget & simulate water temperatures
- Advisory Committee met in 2007 & 2008



TMDL – Stream heating processes



TMDL Implementation...

- General implementation recommendations were included in the TMDL
- No detailed implementation plan developed



General TMDL recommendations...

- Manage riparian zones to allow maturation of vegetation, preferably including native woody plants that offer shade protection.
- Address erosion and sedimentation.
- Encourage residents next to streams to reduce water use during late-summer, low-flow conditions.
- Promote restoration activities that increase groundwater discharge to streams.



Specific Implementation Items

- Hire a basin steward
- Promote CREP
- Depend on Critical Areas Ordinance implementation
- Joint outreach by Skagit County and Ecology
- Complete all plantings within 12 years
 - Riparian plantings complete by 2020
 - Temperature standards met by 2080



Plantings in the TMDL areas

Reach	Loss		Gains		Total Gains	Total
Reach Name	Acres of Anthropogenic Loss	Primary Change Agent of Natural Loss	Acres of Gains (Riparian Plantings - Database)	Acres of Gains (CREP Database)	Acres of Gains (SWC Database + CREP)	Total Change
Hansen Creek	0.3	Tree Removal	87.9	18.9	106.8	106.6
Fisher Carpenter	7.0	Development	12.9	20.8	33.8	26.8
EF Nookachamps	0.0	Tree Removal	0.0	10.1	10.1	10.1
WF Nookachamps	3.9	Tree Removal	0.3	0.0	0.3	-3.6

Percent Change in WRIA 3 :
 (Total gains – Total losses)\Total Riparian Area = **3.1%**



Exercise

- What are the top five actions or elements the plan should include?
 - Please use 5 post it notes to list individual actions



Exercise summary

- What common threads do we see?
- Comments and discussion about topics



Poll Activity

- Text to: 22333
- Conference ID: scottb657
- PollsEverywhere states they will not track your data or phone number. Text and data rates may will apply.



Results

- Why have these topics been successful?
- Can it continue to be successful?



Challenges or barriers

- Text a word or phrase to the poll.
- A word cloud of common words will emerge related to challenges or barriers to implementation or adoption.



Results

- What has been a challenge or limiting factor?
- Can we find new ways to approach the barrier?



Thank you

- Additional discussion
- Ecology will summarize the meeting notes and distribute to the group.
- Feel free to submit additional comments or information for the group.



Next meetings

- Two additional meetings – August, and September
 - Approximately three weeks between meetings.
 - PSP meeting on October 1st or 2nd.
- **Doodle poll will be sent out today –**
- **Preliminary date range is Aug 19th -23rd.**



Thank you

- I will send out a copy of the meeting notes
- Feel free to offer additional comments to me, or the group regarding the meeting notes, discussion topics, and future meetings.

