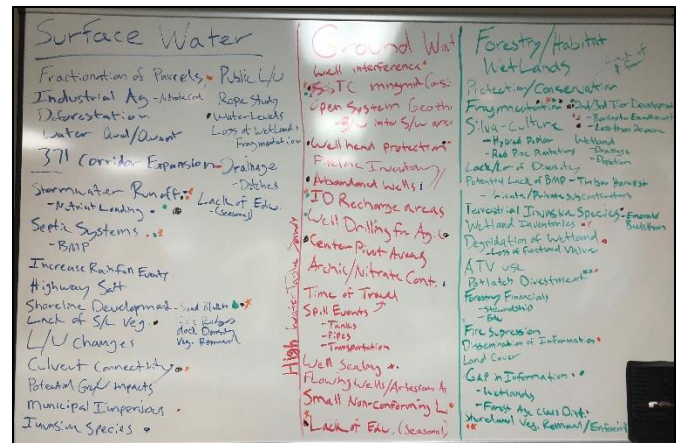


Issue Generation

The Pine River Watershed Advisory Committee met on June 27, 2018 to generate issues for the Pine River Watershed and then prioritize them. To brainstorm issues, the room divided into two groups and generated their own lists. Then the full group reconvened to share issues and record them all on the marker board.



Surface Water Issues (lakes & streams)

- Fractionation of parcels for residential development
- Industrial ag nitrate contamination
- Deforestation
- Water quality
- Water quantity
- 371 corridor expansion – increase transportation efficiency
- Storm water runoff/Impervious surface
- Increased high rain events – increased runoff/erosion
- Nutrient loading
- Septic system maintenance
- Erosion
- Road salt from highways
- Shoreline development
 - Dock density
 - Sand blankets
 - Ice ridge removal
- Land use change
- Loss of shoreline vegetation
- Blocking connectivity, culverts, roads
- Outstanding lakes
- Municipal Impervious surface
- Invasive species
- Shallow groundwater impacts
- Public land use – logging, etc
- ROPE study – ACOE, how to use the reservoir vs how to set water levels
 - Reservoir Operation Procedure Evaluation
- Loss and fragmentation of wetlands
- Drainage – increased ditch use for increased precip for ditches that aren't currently maintained

Groundwater Issues

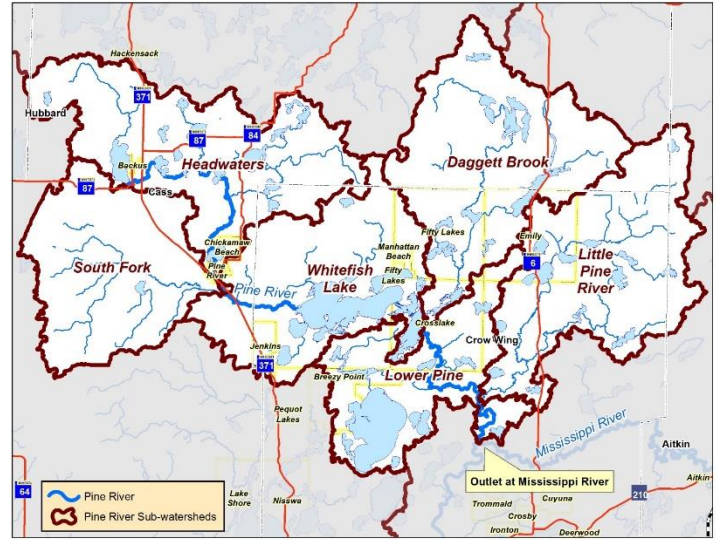
- Well interference/too many wells in the area for that resource
- Unused wells that aren't capped/ managed
- Well drilling for agricultural use
- Number of private wells/concentration (3,500?)
- SSTS management onsite near wells
- Open loop geothermal systems, unidentified
 - Quantity of putting groundwater into surface areas
- Encourage cities to have drinking water supply management areas, wellhead protection area, land use
- Oil spills and leaks along transportation corridors – identify locations of pipelines
- Need to identify recharge areas
- Arsenic/nitrate contamination
- Time of travel – how quickly water moves through the ground
- Flowing wells
- Small non-conforming lake lots
- Land owner education on wellhead protection
- Seasonal living and not knowing how to manage SSTS and wells
- SSTS sweeps for townships, cities, lakes
- Rapid connection between surface and groundwater here – interface, interconnectivity

Habitat/Forestry/Wetlands Issues

- Fragmentation of forests and habitats
- Private forest management
- Divestiture of industrialized forest land, potlach
- Subdivision of 2nd and 3rd tier parcels
- Wetland loss on a local level – is it a problem? Data gap? Wetland inventory
- Degradation of wetlands and reduced function, loss of functional value
- Old growth forests for habitat
- Vegetation removal opens spaces for terrestrial invasive species, buckthorn
- Tree and vegetation species with climate change
- Sensitive areas along shorelines for habitat
- Property value vs ecological value
- Funding for Protection/Conservation – long-term protection, SFIA, Easements
- Silviculture – monocultures, hybrid poplars, row planting, habitat diversity
- Loss of diversity
- Proper best management practices on private lands – wetlands and timber harvest (BMPs not required on private lands)
- ATV use near wetlands
- Forestry financials – education to private landowners on how to manage private woodlands
- Too much fire suppression
- Dissemination of information
- Land cover

Issue Prioritization

To prioritize the list of issues generated, participants divided into two groups. One group prioritized issues for the Whitefish, Lower Pine and Little Pine sub-watersheds while the other group prioritized issues for the Headwaters, South Fork and Daggett Brook sub-watersheds. The priority issues are listed in the table below. There is some overlap between sub-watersheds. The group decided to combine the Whitefish Lake and Lower Pine sub-watershed priorities since they were essentially the same due to the presence of large lakes (Whitefish and Pelican).



	Surface Water	Ground Water	Habitat/Forestry/Wetlands
Headwaters Sub-watershed	<ol style="list-style-type: none"> 1. Fractionation of parcels along lakes 2. Impervious/Storm water 3. High cabin density (people) 	<ol style="list-style-type: none"> 1. Industrial agriculture (west) 2. SSTS 3. Wellhead protection 	<ol style="list-style-type: none"> 1. Fragmentation 2. Historic loss of wetlands 3. Lack of education 4. Long-term protection
Daggett Brook Sub-watershed	<ol style="list-style-type: none"> 1. Cabin density 2. Impervious surface/storm water 3. Shoreline development 	<ol style="list-style-type: none"> 1. Protection of groundwater discharge areas 2. SSTS 3. Well sealing 	<ol style="list-style-type: none"> 1. Fragmentation 2. White Cedar wetland protection 3. Education/dissemination of information
Whitefish & Lower Pine Sub-Watershed	<ol style="list-style-type: none"> 1. Storm water runoff 2. Nutrient loading 3. Shoreline development 4. Septic systems 5. Culvert connectivity 	<ol style="list-style-type: none"> 1. SSTS Management 2. Well drilling for Ag use 3. Well sealing 4. Wellhead protection 5. ID recharge areas 	<ol style="list-style-type: none"> 1. Fragmentation 2. 2nd & 3rd tier development 3. Wetland inventories 4. Potlatch divestments 5. Gaps in information
South Fork Sub-Watershed	<ol style="list-style-type: none"> 1. Drainage issue/culverts 2. Agricultural BMPs 3. Lack of education 	<ol style="list-style-type: none"> 1. Shallow aquifer/sands 2. Recharge area/discharge 3. Contaminants 	<ol style="list-style-type: none"> 1. Lack of funding 2. Education 3. Conservation programs (i.e. PFM) 4. Fragmentation 5. Highway 371 Corridor
Little Pine Sub-Watershed	<ol style="list-style-type: none"> 1. Nutrient loading (Stormwater runoff) 2. Septic System BMPs 3. Culvert Connectivity 4. Fractionation of parcels 5. Invasive Species 6. Land Use Changes 	<ol style="list-style-type: none"> 1. STSS Management 2. Identify recharge areas 3. Well interference 4. Lack of education (seasonal residents) 5. Well Sealing 6. Pipeline Inventory 7. Arsenic/Nitrate content 8. Flowing wells/artesian 	<ol style="list-style-type: none"> 1. Protection/Conservation 2. Fragmentation 3. Potlatch Divestment 4. Gap in information 5. Wetland Inventory 6. Shore land vegetation removal/enforcement

