

# Issue Generation

July Advisory Committee Meeting

## Pine River Watershed

One Watershed One Plan

### Overall Summary

The One Watershed One Plan process requires thoughtful consideration of issues identified in the watershed and priority issues that will be addressed in the plan. The issues for the Pine River Watershed were generated and prioritized with a variety of input from the general public, the Advisory Committee, State Agencies, and existing local and regional plans (Figure 1). The common themes in the priority issues were expanded upon to craft issue statements. Issue statements are problems, risks, or opportunities that will be addressed in this plan. The overall process taken to get to the Issue Statements is illustrated in Figure 1.

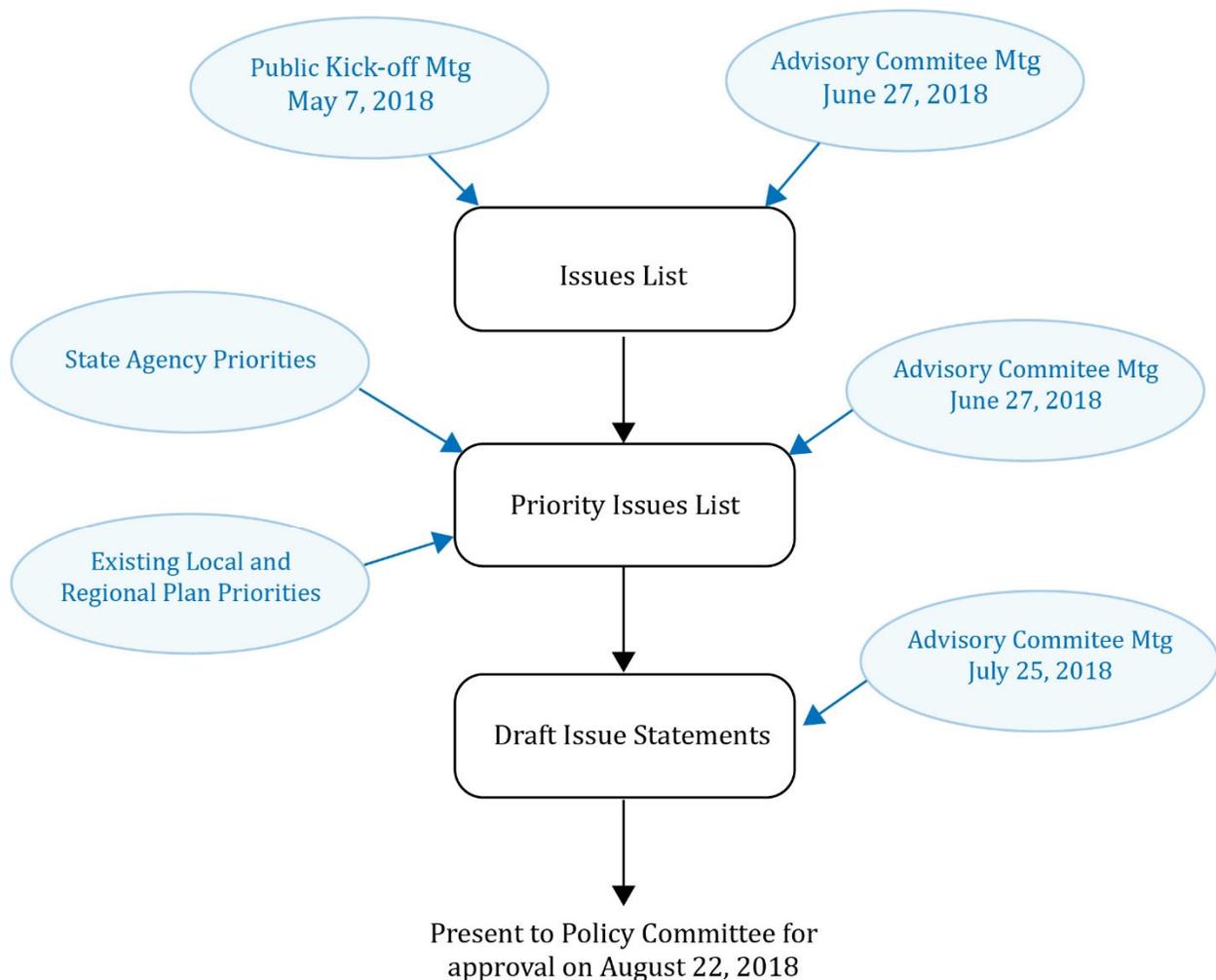
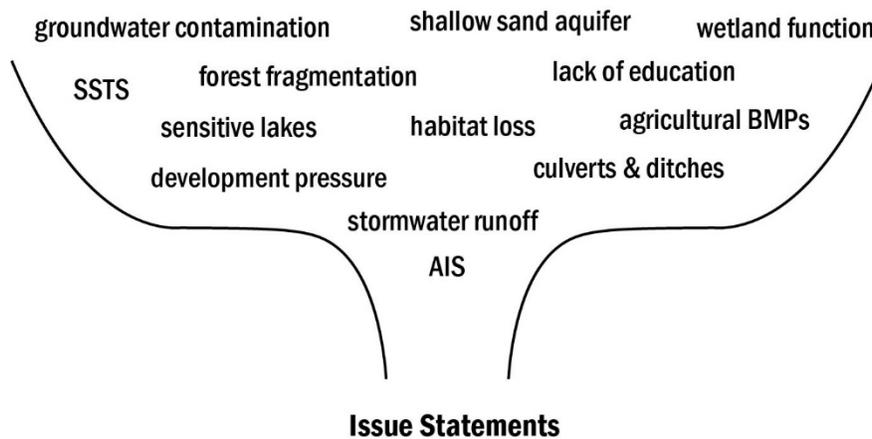


Figure 1. Issue generation process for the Pine River Watershed One Watershed One Plan.

## Draft Issue Statements

Issues generated from the Advisory Committee Meeting and Public Kick-off Event were compiled and compared to existing plan priorities (Crow Wing County Water Plan, Cass County Water Plan, WRAPS, Landscape Stewardship Plan, GRAPS, DNR Sensitive Shoreland Report, NRCS, US Forest Service Report) and State Agency priorities. Common concerns across all sources were matched up resulted in following emerging themes. These common themes were expanded upon to craft issue statements. Issue statements are problems, risks, or opportunities that will be addressed in this plan.



Draft Issue Statements are listed below. The bullet points under each issue statement are sub-items that were generated through the issue brainstorming process that apply to the particular Issue Statement. These bullet points can be used for ideas when crafting goals in the next step of the planning process. Themes from the funnel above were bolded in the Issue Statements.

## Groundwater

**Contamination of shallow sand aquifers**, which have a direct connection to groundwater and interact with surface water, has the potential for widespread impacts.

- Private and public sewage treatment systems
- Unsealed wells
- Contaminants (nitrate, arsenic, hazardous waste, chloride, commercial contaminants)
- Individual wellhead protection (both private and public)
- Well testing

## Surface Water

Projected **population growth** and conversion of seasonal properties to full-time homes has the potential to negatively affect lake water quality.

- Development pressure
- Hwy 371 expansion
- High cabin density
- Increased parcelization

Lakes with identified **high phosphorus sensitivity** and **outstanding biological significance** may not be sufficiently protected with standardized lake management practices.

- Protection goals

**Stormwater runoff** from urban areas, roads, and developed shoreland parcels provides nutrient loading to lakes and streams, which can cause declines in water clarity.

- Increase filtration
- Stormwater capture – urban
- Stormwater capture – riparian
- Historic road construction drainage activities, road ditches

**Nutrient runoff from agricultural areas** has the potential to decrease stream and lake water quality.

- Agricultural BMPs
- Pasture management

Road construction, **stream channelization**, drainage activities and **culvert installation** have altered the hydrology of the watershed causing impacts to habitat, nutrient transfer, water levels and channel stability.

- Culverts
- Ditches

**Aquatic Invasive Species** are threatening the lakes' water quality and aquatic ecosystem.

- This plan supports the implementation of the county and local AIS Plans, which have local and state funding to achieve AIS Plan objectives.

## Habitat & Forests

**Sensitive shoreland habitat is being threatened/lost** by shoreline development and road expansion, which negatively affects fish spawning, shorebird nesting, and habitat quality for other riparian species.

- Shoreline vegetation removal
- Aquatic vegetation removal
- Buffers from roads

**Forests are being fragmented** by changes in land use (development, agriculture, disturbance) which can affect habitat, surface, and ground water quality.

- Potlatch
- Private Forest Management, 75% land protection, 75% vegetated
- Wellhead and source water protection
- 2<sup>nd</sup> & 3<sup>rd</sup> tier development
- Fragmentation of large forested upland tracts
- Open pasture land

## Wetlands

Existing wetlands within the watershed have a variety of protections but the **number, type and quantity of wetlands** have been affected by past practices with the potential to be reflected in current lake water levels, watershed precipitation storage and habitat.

- Wetland mapping – in progress through LiDAR
- Wetland function restoration
- Wetland protection

## Education

**Lack of information/education** for watershed residents can impact habitat and water quality.

- Waste treatment – septic systems and holding tanks
- Shoreland BMPs
- Well testing
- Forest management
- Watersheds