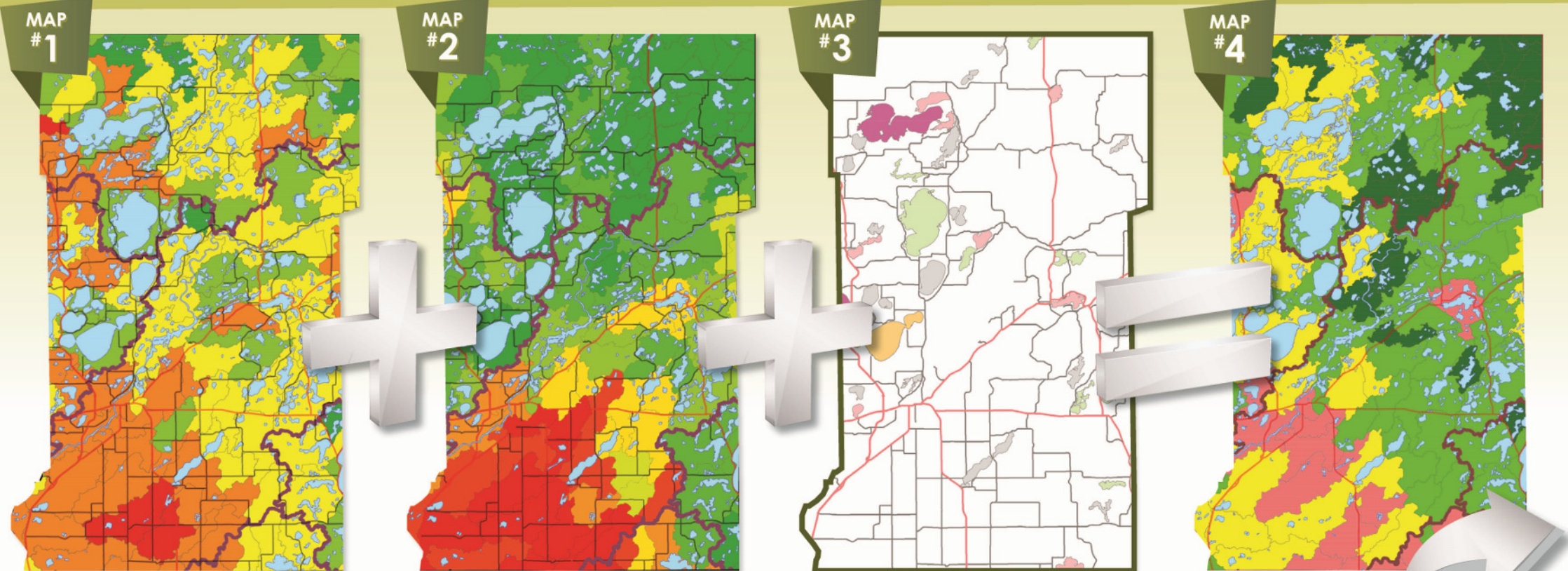
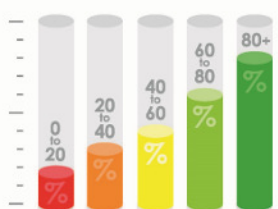


# Our protection approach: Determining risk...

Protected Land Use + Disturbed Land Cover + Water Quality Trends = Risk Classification

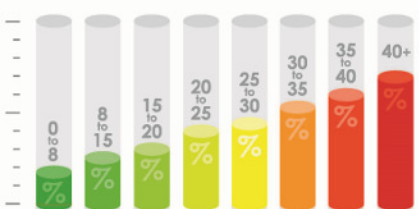


- Vigilance:** Less than 50 % protected lands, less than 8 % land use disturbance, no risk factors such as agriculture, development, artificial drainage, or extractive uses
- Protection:** 40-65 % protected lands, 8-30 % land use disturbance, minimal risk factors, and water quality that is stable or improving, multiple high-quality resources could be protected
- Enhance / Protection:** Less than 40 % protected lands, moderate amount of risk factors, water quality that is stable, declining, or impaired, manageable risk factors, one or more water resources that could be protected
- Enhance:** Less than 40 % protected lands, greater than 30 % land use disturbance, multiple to significant risk factors, limited resources to protect



% Of Protected Land

The distinction between public and private lands is important. From a planning perspective, watersheds with a high percentage of public land are not as at-risk for future water quality impacts and may not require the same level of focus as watersheds with a smaller percentage of public land. Public land is considered to be already in a protected state as are water bodies such as lakes, streams, and wetlands.



% Disturbed Land Cover

Map 2 shows the percentage of land that has been converted from a natural forested condition to other land uses, such as crop and pasture land and developed areas. Minimizing or managing these changes in a watershed is a good way to maintain high water quality.



Lake Water Quality Trends

In addition to protected areas and land use disturbance, watershed health is also influenced by the water quality of the lakes / streams that they contain. Watersheds with lakes with a declining trend in water quality based on data collected over many years were classified lower simply because of this declining trend.



Risk Classification

The data from the three previous three maps leads to our designation of risk classifications.

Crow Wing County is part of 5 major watersheds and has portions of 125 minor watersheds. For this plan, a watershed based model was used that classified each minor watershed by the amount of protected land as well as by various risk factors and water plan priorities.

## CROW WING COUNTY 2013-2023 WATER PLAN

A Watershed Protection Approach to Local Water Management

