

DRAFT Issue Statements - Revised February 23, 2021

General Issue Area	General Issue Statement	Specific issues (or opportunities) provided as examples of this category (Green text indicates issue statement from agency response to notification letter - agency in parentheses) (Blue text indicates issues identified in public survey responses) (Black text indicates additional issues identified by the Steering Team)
Degraded Soil Health	Degraded soil health diminishes agricultural productivity, landscape resilience, and the associated benefits to the environment	<ul style="list-style-type: none"> - poor soil health may limit the soil's ability to filter nutrients and other pollutants and contribute to increased runoff (BWSR) - practices of soil health have the potential to positively change the interaction of agriculture and the natural system at the soil level (BWSR) - poor soil health may require additional fertilizer applications and man-made products, increasing pollutant loading (public) - losing top soil due to poor farming practice (public) - need to improve soil health to retain water where the rain falls (public) - conservation practices to enhance/preserve soil health are not consistently used (public) - the landscape has become less resilient to change because of degraded soil health - economic incentives to use soil health practices (i.e., improved productivity vs. cost) is not realized - infiltration and groundwater recharge is reduced by degraded soil health
Excessive Erosion & Sedimentation	Excessive in-field, ravine, shoreline, and in-channel erosion diminishes agricultural productivity, damages riparian areas, and degrades surface water quality and stream habitats.	<ul style="list-style-type: none"> - accelerated soil erosion, leading to turbidity and water quality issues, is a priority within this planning area (BWSR) - Lower MN River WRAPS identified total suspended solids (TSS) as a stressor for impaired waters (MPCA) - near-channel erosion (e.g., streambank, bluff and ravine erosion) is the dominant loading source for TSS in the Lower Minnesota River Watershed (BWSR, MPCA, public) - eroding valleys, rivers, ravines, and tributaries, especially in the western part of the watershed, contribute sediment and nutrients to the Rush River and High Island Creek (MDNR, public) - erosion has resulted in infrastructure damage, loss of cropland, diminished drainage, and eutrophication (MDNR, public) - unstable bluff areas (e.g., along County Road 6 and State Highway 93) pose a serious threat to public safety (MDNR) - protection and restoration of shoreland and riparian zones is needed for ecological and water quality benefit (MDNR) - erosion from county ditches is filling lakes with sediment (public) - native plant buffers are needed along shorelines (public) - erosion results in loss of organic matter and productive topsoil - sedimentation in floodplain areas reduces capacity and increases flood risk - sedimentation increases the frequency of regular maintain for public infrastructure - sedimentation decreases the ecological and habitat value of wetlands

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Surface Water Quality Degradation	Surface water quality is threatened or impaired by pollutant loading and other stressors.	<ul style="list-style-type: none"> - degraded water quality is a significant issue in the watershed (BWSR) - several lakes are listed as impaired for eutrophication: Clear, Silver, Titlow, High Island, and Bakers Lake (MPCA, BWSR) - stream reaches are impaired for sediment, bacteria, nutrients, and fish and macroinvertebrate indices of biological integrity due to various stressors (MPCA) - recreational uses are impaired due to bacteria and nutrient loading from feedlots, land application of manure, and leaking subsurface sewage treatment systems (SSTS) (MPCA) - urban stormwater runoff contains pollutants such as pesticides, fertilizers, sediment, salt, and other debris (BWSR) - poor water quality leads to loss/reduction of recreational opportunities (e.g., swimming in Lake Titlow) (public) - local lakes have bad water quality (e.g., Washington Lake, Clear Lake, High Island Lake) (public) - nutrient loading to High Island Creek (public) - chemicals applied in towns/cities and residential use is affecting water quality (public) - agricultural/field runoff carries chemicals and nutrients to lakes, streams, and wetlands (public) - runoff containing road salt, detergents, pesticides contaminate lakes and streams (public) - bird and animal waste washing into lakes and streams (public) - lack of adequate stormwater treatment is widespread - high quality resources require protection (e.g., Sand Lake, Ward Lake, Plaman Lake)
Excessive Runoff and Flooding	Increased runoff and frequent flooding threaten public safety, property, and infrastructure and carry significant financial and environmental costs.	<ul style="list-style-type: none"> - flooding on Minnesota's highways is a particular problem in this watershed (MDNR) - weather record for the planning area shows increased frequency and severity of extreme weather events (BWSR) - water storage is needed due to increased precipitation, runoff rates, and volumes (MDNR) - altered hydrology contributes to more extensive flooding (MDNR; MPCA) - municipal and rural stormwater systems may be undersized for current/future precipitation patterns - existing floodplain mapping/modeling likely does not accurately reflect current (or future) flood risk - ongoing Rush River flooding at HWY 93 (public) - flooding along the Minnesota River, including CO RD 6 (public) - excessive flooding of Rush River park in recent years (public) - flooding around Bakers Lake (public) - floodplain around Buffalo Creek much larger than before (public)

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Altered hydrology and Drainage	Changes to natural hydrologic systems, tiling of fields, and loss of storage increase runoff and negatively impact water quality, flood risk, and ecology.	<ul style="list-style-type: none"> - altered hydrology is a cause of water quality impairment affecting recreational use and biological health (MDNR) - restoring hydrologic function can reduce flooding, improve water quality, stabilize channels, and improve habitat (MDNR) - altered hydrology contributes to accelerated erosion and increased flooding (MDNR, MPCA) - dams have negative impacts, including altered stream flow, habitat degradation, reduced fish passage, and lowered dissolved oxygen (MDNR) - multipurpose drainage management projects provide an opportunity for targeting best management practices (BWSR) - altered hydrology can impact timing of peak flows and lead to a lack of baseflow (MDNR) - altered hydrology contributes to increased peak flows and flooding, reduced infiltration, loss of water storage capacity (MDNR, public) - water storage is needed in the watershed (MDNR, public) - agricultural drainage is overloading drainage systems (public) - draining of the Lake Erin system (public) - there is too much drain tile, overwhelming streams and rivers (e.g., western part of High Island Creek watershed) (public) - tiling is driving force for other issues (e.g. water quality, flooding, and erosions) (public) - development (e.g., Green Isle, Saxon Township) increases impervious area and associated runoff - stream channelization in the upper watershed increases flow rates in lower reaches - stream channelization leads to lack of access to natural floodplains
Threatened Groundwater Supply	Groundwater sustainability is at risk from consumptive use and loss of recharge.	<ul style="list-style-type: none"> - groundwater level monitoring is needed to assess trends caused by drought and flooding or by water use (MDNR) - Plan should address protection of recharge areas, particularly in proximity to wellhead protection areas (MDNR) - the planning area includes areas with deep wells with limited groundwater resources and aquifer availability (MDH) - concern that tiling may lower water table over long term (public) - future actions may impact wells/aquifer in future (public) - increasing industrial use may impact local water levels - infiltration and groundwater recharge may be decreased by development, tiling, and other human activity
Protection of Groundwater/ Drinking Water Quality	The high quality of groundwater and drinking water must be protected from potential threats.	<ul style="list-style-type: none"> - degraded groundwater quality is a significant issue in the watershed (BWSR) - unused, unsealed wells can provide a conduit for contaminants from the surface to drinking water (MDH) - private well owners may lack water quality information/testing (MDH) - over 20% of arsenic samples taken from wells in the planning area have arsenic levels above the Safe Drinking Water Act (SDWA) standard of 10 µg/L (MDH) - the Plan should consider impacts to non-community public water supplies (e.g., schools, campgrounds) (MDH) - agricultural runoff impacts wells and drinking water (public) - infiltration of runoff containing pollutants can impact drinking water in areas with vulnerable wells and aquifers - there is a lack of education and outreach regarding groundwater quality issues (specifically arsenic) - there is a lack of cost-share opportunities to address arsenic in groundwater

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Threats to Fish, Wildlife, and Habitat	Human activity threatens natural areas, prairies, bluffs, and wetlands providing habitat and other ecological benefits, and the species that inhabit them	<ul style="list-style-type: none"> - Lower MN River WRAPS identifies lack of habitat as a stressor for biological impairments (fish and macroinvertebrates) (BWSR, MPCA) - protection and restoration of wetlands provides benefits for water quality, flood damage reduction, and wildlife habitat (BWSR) - 3,400 acres of Conservation Reserve Program (CRP) practices are scheduled to expire within the partnership's counties by 2022 (BWSR) - Plan should focus on protection and enhancement of stream-adjacent habitat corridors (MDNR) - Plan should focus on protection and enhancement of remaining areas of biodiversity, springs, and Le Sueur Calcareous Fen (MDNR) - invasive species are a risk to ecosystems, agriculture, recreation, and human health (BWSR) - emerging weed threats such as Palmer amaranth pose a significant risk to agricultural production (BWSR) - wetlands are being drained/lost (public) - loss of wildlife habitat areas (public) - removal of tree lines and wetland drainage reduces habitat (public) - there are opportunities to improve fishing in Silver Lake (public) - poor water quality affecting fish population (e.g., Buffalo Creek) (public) - declining biodiversity provides opportunities for proliferation of invasive species - lack of natural disturbance (e.g., fire) and/or maintenance leads to woody species encroachment of prairie habitats - preservation of high quality natural resources is necessary to sustain recreational activities (e.g., hunting, fishing)