WATER

LAKES AND RIVER WATER QUALITY

Goal: All waters in Minnesota be fishable and swimmable (100%).

This metric is based on Minnesota's level of attainment toward state and national goals for the Clean Water Act to have all waters be fishable and swimmable. It is yellow because a moderate number (60%) of Minnesota's lakes and streams support swimming and fishing.

RED	YELLOW	GREEN
Less than 40% of lakes and streams support swimming and fishing	40 to 70% of lakes and streams support swimming and fishing	Greater than 70% lakes and streams support swimming and fishing
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
	Work continues to complete the first round of lake monitoring across the state. Beginning in 2019, trends will become available.	

WATER USE

Goal: Reduce per capita water consumption use by 1.5% per year.

This is metric based on water consumption data. It is yellow because our goal is to reduce per capita water consumption use by 1.5% per year and we are close to, but not exceeding, that goal. This metric is trending flat because average water consumption per capita over a ten-year period is not decreasing fast enough to ensure we continue to meet this goal.

RED	YELLOW	GREEN
Per capita water consumption increasing > .5% per year.	Per capital water consumption change between +.5% to -1.5% per year.	Decreasing per capita water consumption – exceeding 1.5 percent per year.
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
10-year linear trend line for rolling 3-year average of per capita water consumption has a positive slope of at least 500 gal. per person	10-year linear trend line for rolling 3-year average per capita water consumption has a slope of between 500 gal. and -500 gal.	10-year linear trend line for rolling 3-year average per capita water consumption has a negative slope of at least -500 gal.

NITRATE

Goal: 100% of private wells are below the Health Risk Limit (HRL) for nitrate.

This metric is based on Minnesota Department of Agriculture's private well monitoring network for nitrate in two vulnerable areas of the state (southeast and central Minnesota) to determine nitrate concentrations and trends. It is red because **96%** of the private wells sampled in central Minnesota and **89%** of private wells sampled in southeast Minnesota are below the state's Health Risk Limit (HRL). This metric is trending flat because there is no statistically significant upward or downward trend in the percentage of wells below the HRL.

RED	YELLOW	GREEN
<98% -nitrate below the HRL in Central <95% -below the HRL in SE	≥ 98% nitrate below the HRL in Central ≥95% nitrate below the HRL in SE	100% nitrate below the HRL in Central 100% nitrate below the HRL in SE
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Statistically significant downward trend in nitrate concentrations.	No statistically significant upward or downward trend in nitrate concentrations.	Statistically significant upward trend in nitrate concentrations.

= Status of Metric

LAND

PHEASANT

Goal: Stable and healthy pheasant population.

This metric is based on the August Road Side Survey (ARS) of pheasants (which counts birds per 100 miles), is the long-standing measure of population health. It is red because populations are low **(<42)** compared to historic levels. This metric is trending downward because the average number of birds observed per mile has been decreasing over a five-year period.

RED	YELLOW	GREEN
ARS <42	ARS 42 – 69	ARS > 69
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
5-year linear trend line for rolling 5-year average ARS has a negative slope of at least -1.	5-year linear trend line for rolling 5-year average ARS has a slope of between 1 and -1	5-year linear trend line for rolling 5-year average ARS has a positive slope of at least 1

LAND CONVERSION

Goal: There is no stated goal, but we are looking at historic trends for how to use land efficiently. We want to better understand land conversion patterns and the impact of trends.

This metric is based on levels of land conversion and how efficiently we develop land as our population and economy grows. It is yellow because the amount of land developed per 1,000 people is between **428.06 acres and 468.54 acres**—which is a moderate amount compared to historic patterns. This metric is trending up because the 15-year trend of land developed per person is trending down (.5% of less positive or negative)

RED	YELLOW	GREEN
Developed acres per 1,000 persons exceeds 468.54 acres.	Developed acres per 1,000 persons is between 428.06 acres and 468.54 acres.	Developed acres per 1,000 persons is less than 428.06 acres.
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
15-year trend (percent change) in developed acres per 1,000 persons is greater than 0.5% upward (i.e., is positive)	15-year trend is relatively flat (0.5% or less positive or negative)	15-year trend is greater than 0.5% downward (i.e., is negative)

RECYCLING

Goals: Twin Cities recycling goal = 75% of generated waste.
Greater Minnesota recycling goal =35% of generated waste.

This metric is red because we are not meeting our recycling goals as a state. Currently, as a state we recycle approximately **43.2%** of all waste in Minnesota. Currently, the Twin Cities recycles **43.4**% of waste; Greater Minnesota (up from the 2017 report) recycles **43%.** The arrow is flat because recycling and organics management are at or above historic levels but are not on track to meet goals.

RED	YELLOW	GREEN
≤44.4% Recycling & Organics Management	44.5-48.5% Recycling & Organics Management	≥48.6% Recycling & Organics Management
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Recycling and Organics management rates are below historical levels.	Recycling and Organics management rates are at or above historical levels but are not on track to meet goals.	Recycling and Organics management rates are on track to meet goals.

= Status of Metric

AIR

AIR QAULTIY INDEX

Goal: Zero air quality alert days in Minnesota.

This metric is based on number of days per year with air quality alerts. It is green because Minnesota has experienced very few air quality alerts and we could get closer to the goal of zero air quality alert days. This metric is trending up because the average number of air quality alert days over the last three years is more than 2 days fewer than the average number of alert days from the previous 3-years.

RED	YELLOW	GREEN
19 or more days of unhealthy air (>5% of days)	8 to 18 days of unhealthy air (2-5% of days)	7 or less days of unhealthy air (<2% of days)
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Average number of air quality alert days over the last 3-years is more than 2 days greater than the average number of alert days from the previous 3-years.	Difference in average alert days between the most recent 3-years and the previous 3-years is less than or equal to 2 days.	Average number of air quality alert days over the last three years is more than 2 days fewer than the average number of alert days from the previous 3-years.

ASTHMA

Goal: The goal is to reduce asthma Emergency Room (ER) visits.

This metric is tied to the number of asthma ER visits within three age groups (0-4, 5-64, and 65+). There is a target goal for reducing asthma ER visits in each of these groups. The metric is yellow because Minnesota is only meeting targets for two of the three age groups. This metric is trending flat because the 2016 data—which is the most recent—does not show improvement compared to the previous year. In 2015, Minnesota was also meeting two of the three age group goals.

RED	YELLOW	GREEN
Meeting 0 of 3 age group targets	Meeting 1 or 2 age group targets	Meeting all 3 age group targets
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Meeting fewer age group targets than previous year	Meeting the same number of age group targets as previous year	Meeting more age group targets than previous year

TRANSIT RIDERSHIP

Goal: Double transit ridership in the Twin Cities (2003 to 2030) and meet 90% of demand for transit in Greater Minnesota counties.

Annual targets for statewide transit ridership are calculated by adding together separate targets for the Twin Cities metro-area and Greater Minnesota. The basis of the metro-area target is the Met Council's 2030 Transportation Policy Plan (TPP), which set the goal of doubling 2003 ridership by 2030[1]. The basis of the Greater Minnesota target is a legislative requirement that transit service providers in Greater Minnesota counties provide service sufficient to meet 90% of estimated demand for transit by 2025. Transit ridership did not exceed 2015 targets in both the metro-area and Greater Minnesota, but year-over-year growth was significantly less than the pace needed to achieve the longer-term goals.

[1]This goal was not included in the 2040 TPP and will be reassessed as part of a future TPP update.

RED	YELLOW	GREEN
Statewide ridership ***less*** than 95% of targeted ridership; **AND** Statewide ridership growth ***less*** than targeted growth.	Statewide ridership ***less*** than 95% of targeted ridership; **BUT** statewide ridership growth ***greater*** than targeted growth. --- Statewide ridership ***greater*** than 95% of targeted ridership; **BUT** statewide ridership growth ***less*** than targeted growth.	Statewide ridership ***greater*** than 95% of targeted ridership; **AND** Statewide ridership growth ***greater*** than targeted growth.
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Growth < 0	Growth ≥ 0 but less than targeted growth.	Growth > targeted growth

= Status of Metric

ENERGY

RENEWABLE ENERGY 25%

Goal: Minnesota achieved 25% renewable energy in 2018 and is on track to surpass its renewable electricity standard of 28.5% by 2025. The state has the potential to go much further.

This metric is green because 100% of reporting utilities are met this goal, however the opportunity exists to go much further towards a 50% goal. This metric is trending upward because 100% of reporting utilities are on track to supply 25% of energy supply from renewable energy by 2025.

RED	YELLOW	GREEN
Less than 80% of reporting utilities are on track to meet or exceed 25% by 2025.	80% -100% of reporting utilities are on track to meet 25% by 2025.	100% of reporting utilities are on track to meet or exceed 25% by 2025.
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
100% of reporting utilities are not on track to meet the 25% by 2025.	100% of reporting utilities are only on track to meet 25% by 2025.	100% of reporting utilities are on track to exceed the 25% RPS.

HOUSEHOLD ENERGY

Goal: Reduce household energy use to help meet Next Generation Energy Goals.

Minnesota is making its homes more energy efficient, however, energy consumption continues to increase with the growth in air conditioning use, appliances, and personal devices. This metric is green because household energy use in Minnesota has decreased by 1% or more. This metric is trending up because there has been three consecutive years in which there was a decrease in household energy use .

RED	YELLOW	GREEN
+1% HH residential energy use (EIA data)	-1 to 0% HH residential energy use (EIA data)	-1% and below HH residential energy use (EIA data)
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
3 consecutive years of +1% HH residential energy use demonstrates a downward trend (which would be signified by an upward trend line in the graphical representation of use)	3 consecutive years of -1 to 0% HH residential energy use which indicate a steady trend of no significant change.	3 consecutive years of -1% and below HH residential use demonstrates an upward trend (which would be signified by a downward trend line in the graphical representation of use)

TRANSPORTATION FUEL USE

Goal: Reduce transportation fuel use at a pace sufficient to support the state's greenhouse gas reduction goals.

Transportation fuel use is evaluated by comparing actual fuel use in a given year to a fuel use target that aligns with Next Generation Energy Act greenhouse gas reduction goals. Converted to transportation fuel use, these goals call for reductions in transportation fuel use equal to 15 percent of 2005 levels by 2015 and 25 percent of 2005 levels by 2025.

RED	YELLOW	GREEN
Total transportation fuel use greater than targeted fuel use and year-over-year decrease less than targeted decrease.	Total transportation fuel use greater than targeted fuel use but year-over-year decrease in fuel use greater than the targeted year-over-year decrease OR Total transportation fuel use less than targeted fuel use but year-over-year decrease in fuel use less than targeted year-over-year decrease	Total transportation fuel use less than targeted fuel use and year-over-year decrease in fuel use greater than targeted year-over-year decrease
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Year-over year increase in fuel use	Year-over-year decrease in fuel use less than targeted year-over-year decrease.	Year-over-year decrease in fuel use greater than targeted year-over-year decrease

= Status of Metric

= Status of Metric

CLIMATE

TEMPERATURE (Heat and Rainfall)

Goal: Less than 2° Celsius globally, MN consistent with this based on international goal

This metric is red because statewide low temperatures have been increasing rapidly in Minnesota. This metric is trending down because the rate of low temperature increases has accelerated in more recent decades, i.e. the statewide low temperature trend in the last 50 is worse than the trends between 1895-2015.

RED	YELLOW	GREEN
1895-2015 statewide low temperatures increasing by average rate of at least 0.2° F per decade	1895-2015 statewide low temperatures increasing by less than 0.2° F per decade	1895-2015 statewide low temperatures either not changing or decreasing (indicating that nighttime warming has stopped or been reversed)
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Statewide low temperature trend for most recent 50 years ***is positive*** and ***exceeds*** 1895-2015 trend by more than 0.05° F per decade	Statewide low temperature trend for most recent 50 years ***is positive or neutral*** and ***is within*** +/- 0.05° F of 1895-2015 trend.	Statewide low temperature trend for most recent 50 years ***is less than*** 1895-2015 trend by more than 0.05° F. Any negative trend (cooling) gets this designation automatically.

GHG

Goal: Next Generation Energy Act of 2007 GHG goals.

This metric shows progress toward meeting the Greenhouse Gas reduction goals in the Next Generation Energy Act of 2007. It is red because Minnesota had only an 12% reduction in GHG emissions since 2005 which is much less than 80% of the reduction necessary to be on track to meet the Next Generation Energy Act Reduction Goal. While progress has been made and the steps we have taken mean that total emissions are not increasing above the baseline, the trend over the past five years (2009-2016) shows flat emissions. MPCA. (published December 2018) Greenhouse Gas Emissions Reduction: Biennial report to the Minnesota Legislature. Available at: https://www.pca.state.mn.us/air/greenhouse-gas-emissions-minnesota-0

RED	YELLOW	GREEN
Less than 80% of Next Generation Energy Act Reduction Goal	80%-100% of Next Generation Energy Act Reduction Goal	Meeting or better than Next Generation Energy Act Reduction Goal
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Emissions increasing, positive slope of 5-year linear trend.	Emissions flat, insignificant slope	Decreasing emissions, negative slope

CISCO POPULATION

Goal: Healthy and stable cisco population

This metric is based on the health of cisco populations. Cisco is a main food source for walleye and trout. The metric is yellow because cisco abundance is low compared to historic levels but not yet dangerously low. The metric is trending downward because populations have declined over a ten-year period.

RED	YELLOW	GREEN
Mean fish per net, less than 1	Mean fish per net: greater than 1 less than 5	Mean fish per net: 5 or greater
DOWN ARROW	**FLAT ARROW**	**UP ARROW**
Based on a ten-year trend line for cisco abundance trend (mean fish per net of sampled lakes) - A negative linear trend with slope of less than -0.1	Based on a ten-year trend line for cisco abundance trend (mean fish per net of sampled lakes) - A flat linear trend with slope between -0.1 and 0.1	Based on a ten-year trend line for cisco abundance trend (mean fish per net of sampled lakes) - A positive linear trend with slope of more than 0.1

= Status of Metric