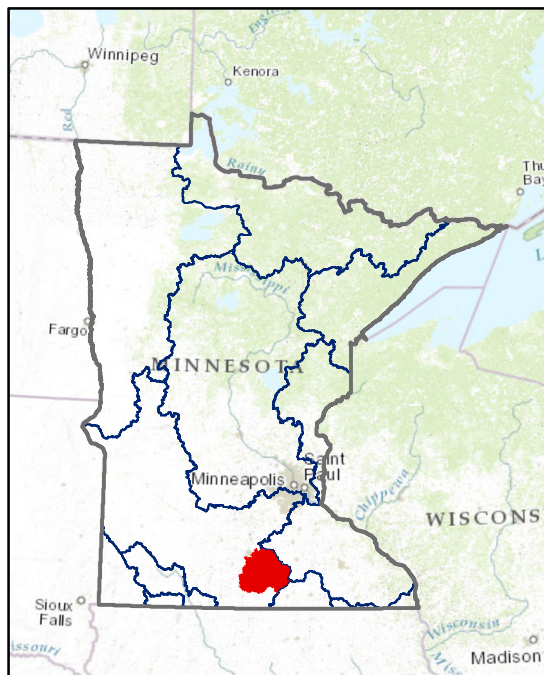


# Watershed Health Assessment Framework

"Managing for System Health"



## Watershed Report Card: Le Sueur River



### People and Places:

#### Watershed Population:

2000 census - 33,099

2010 census - 34,412

#### Largest Cities - Population:

Eagle Lake - 2,422

Wells - 2,343

Janesville - 2,256

Mapleton - 1,756

New Richland - 1,203

#### Counties - % of watershed:

Blue Earth - 33 %

Waseca - 32 %

Faribault - 22 %

Freeborn - 10 %

Steele - 3 %

Le Sueur - 0 %

### Watershed Area:

#### Watershed size:

711,115 acres

1,111 square miles

#### Watershed Surface Area:

Percent Land - 98 %

Percent Water - 2 %

#### HUC8 ID:

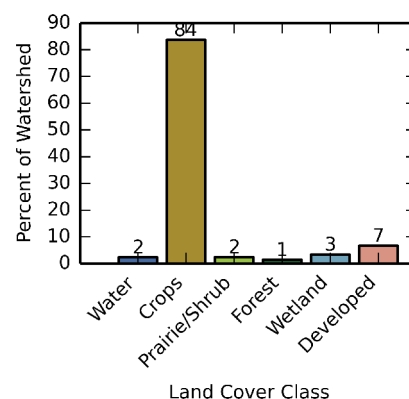
07020011

#### Basin Name:

Minnesota (0702)

### Land Use:

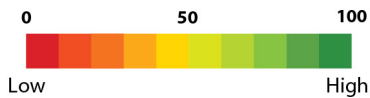
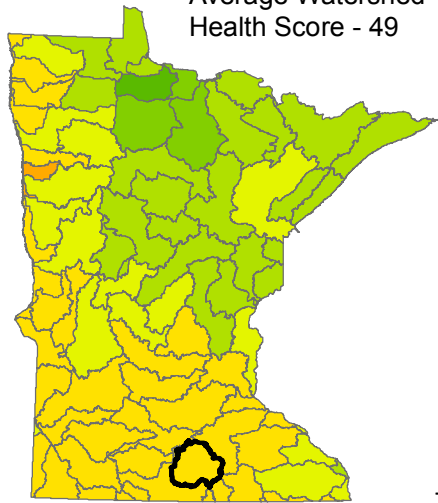
#### Percent of watershed area by land cover type:



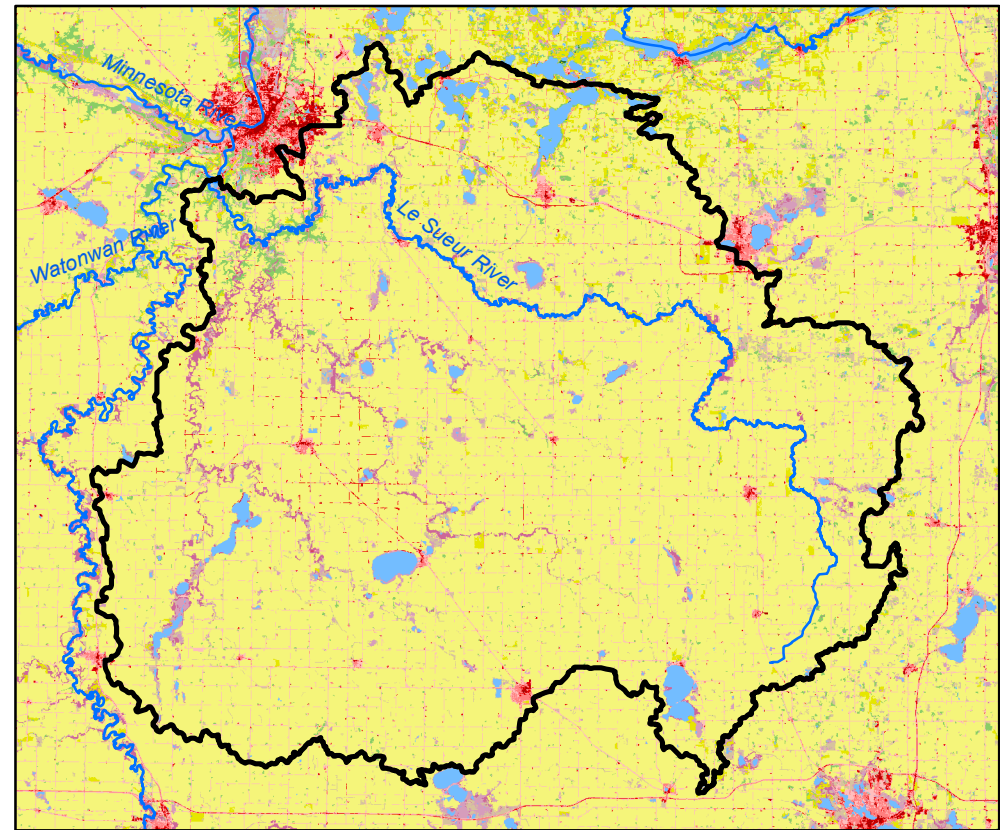
# Watershed Health Report - Major Watershed

## Le Sueur River

Average Watershed Health Score - 49



These health scores are calculated at the Major Watershed (HUC8) scale. Health score names followed by (\*) are also calculated at the DNR Catchment scale (subdivided HUC12). Those results are reported on the following pages.



### Hydrology

Component Health Score (index average) 60

#### Index Scores

Perennial Cover*	9
Impervious Cover*	71
Water Withdrawal*	99
Flow Variability	65
Hydrologic Storage	35
<b>Sub-Scores</b>	
Altered Streams*	53
Surface Storage	18



### Geomorphology

Component Health Score (index average) 74

#### Index Scores

Soil Erosion Potential*	76
Groundwater Susceptibility	55
Climate Vulnerability	92



### Biology

Component Health Score (index average) 38

#### Index Scores

Terrestrial Habitat Quality*	1
Stream Species Quality*	76
Species Richness	56
At-Risk Species Richness	18



### Connectivity

Component Health Score (index average) 19

#### Index Scores

Terrestrial Habitat Connectivity	2
Aquatic Connectivity*	45
Riparian Connectivity*	44



### Water Quality

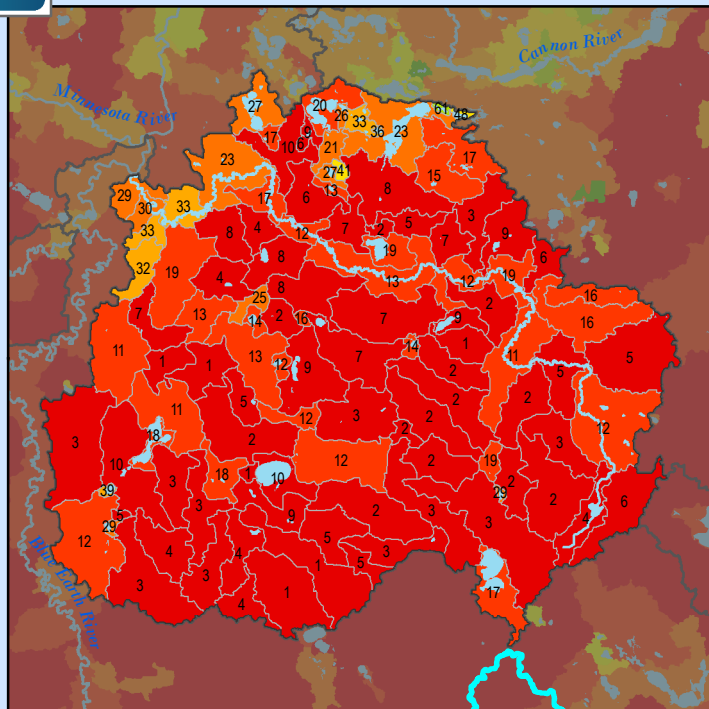
Component Health Score (index average) 52

#### Index Scores

Non-Point Pollution Sources	31
<b>Sub-Score</b>	
Phosphorus Risk*	5
Localized Pollution Sources*	81
Assessments	39



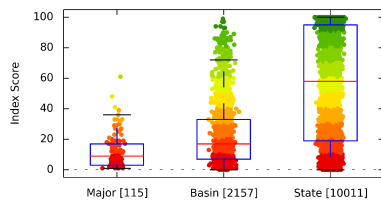
## Perennial Cover (2011)



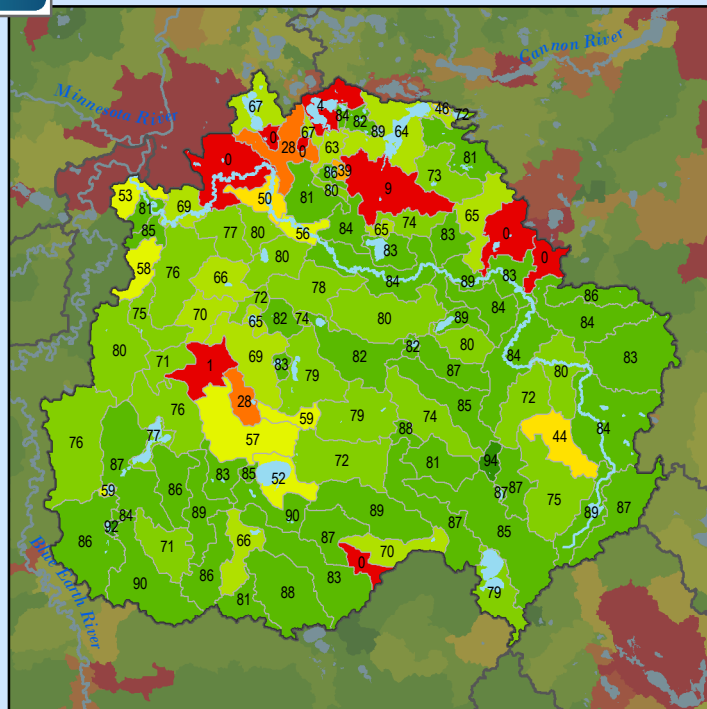
### Health Score Distributions:

Le Sueur River

Min: 1  
Max: 61  
Median: 9.0  
Mean: 12.13  
Standard Dev: 11.2



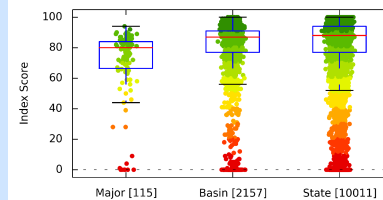
## Impervious Cover (2011)



### Health Score Distributions:

Le Sueur River

Min: 0  
Max: 94  
Median: 80.0  
Mean: 70.28  
Standard Dev: 23.61



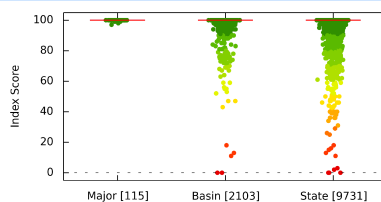
## Water Withdrawal Index



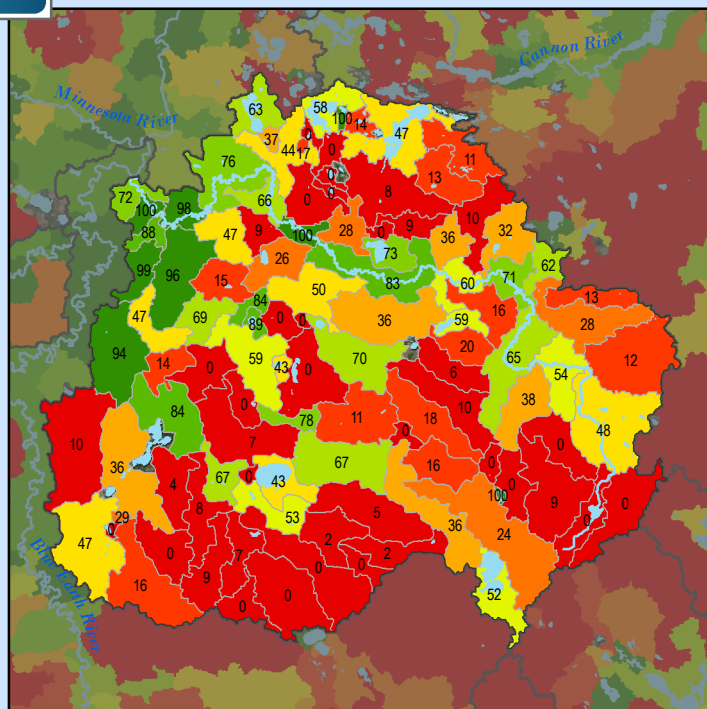
### Health Score Distributions:

Le Sueur River

Min: 97  
Max: 100  
Median: 100.0  
Mean: 99.93  
Standard Dev: 0.37



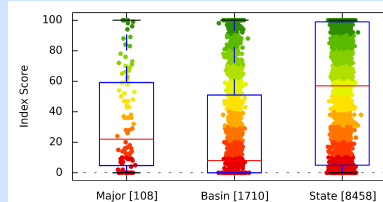
## Altered Streams



### Health Score Distributions:

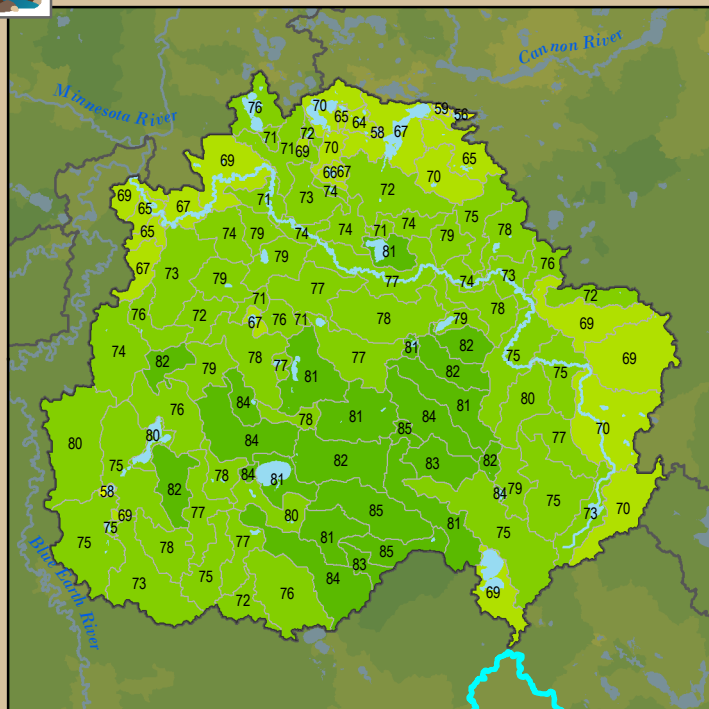
Le Sueur River

Min: 0  
Max: 100  
Median: 22.0  
Mean: 33.63  
Standard Dev: 32.32





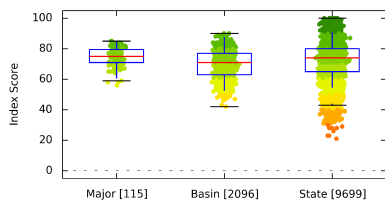
## Soil Erosion Potential



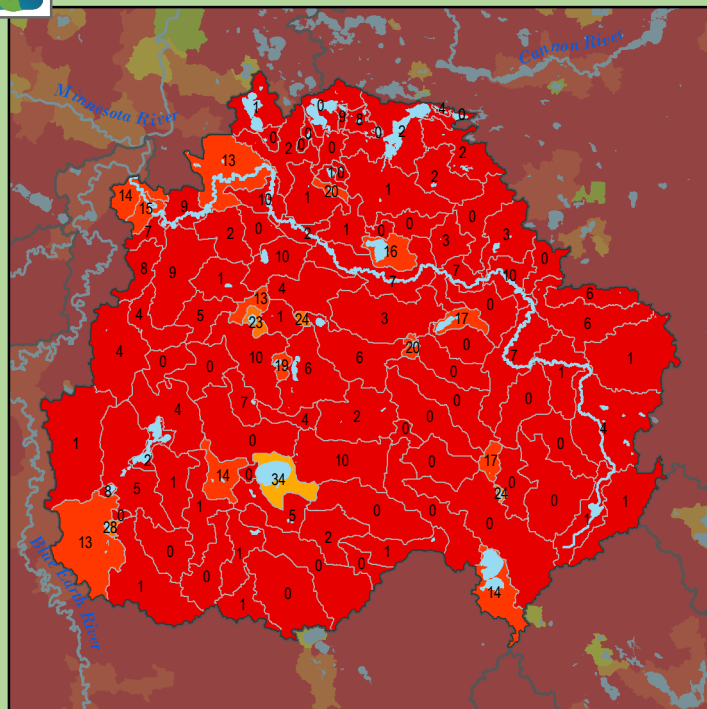
### Health Score Distributions:

Le Sueur River

Min: 56  
Max: 85  
Median: 75.0  
Mean: 74.89  
Standard Dev: 6.23



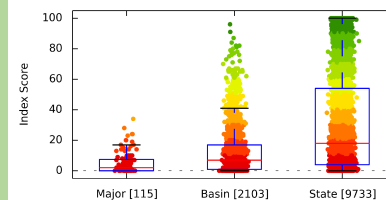
## Terrestrial Habitat Quality



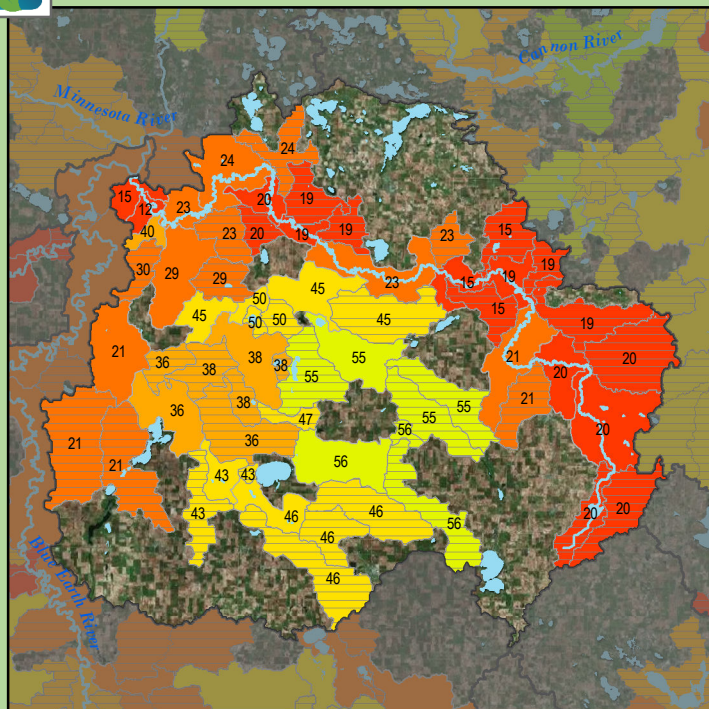
### Health Score Distributions:

Le Sueur River

Min: 0  
Max: 34  
Median: 2.0  
Mean: 5.1  
Standard Dev: 6.94



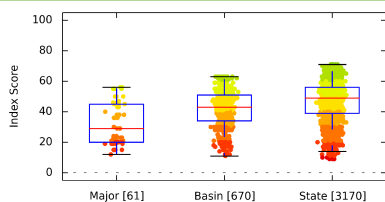
## Stream Species Quality - Mussel Score



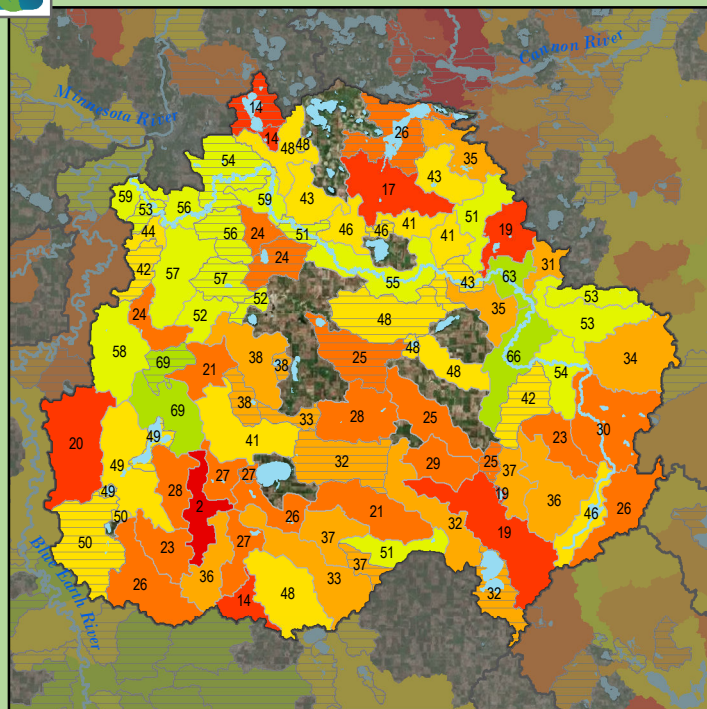
### Health Score Distributions:

Le Sueur River

Min: 12  
Max: 56  
Median: 29.0  
Mean: 32.66  
Standard Dev: 13.78



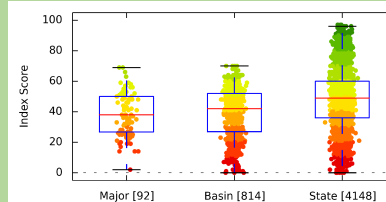
## Stream Species Quality - Aquatic Invertebrate IBI



### Health Score Distributions:

Le Sueur River

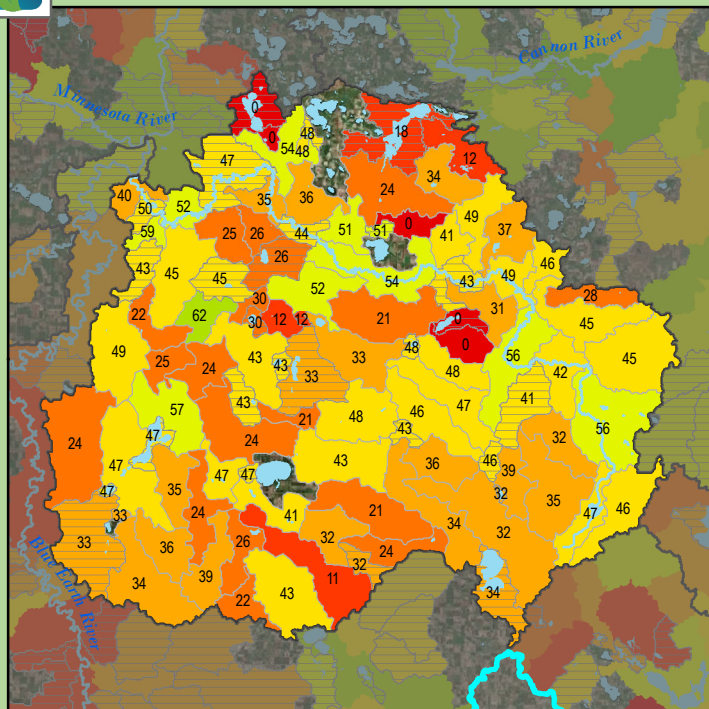
Min: 2  
Max: 69  
Median: 38.0  
Mean: 38.78  
Standard Dev: 14.16







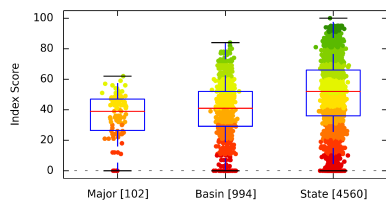
## Stream Species Quality - Fish IBI



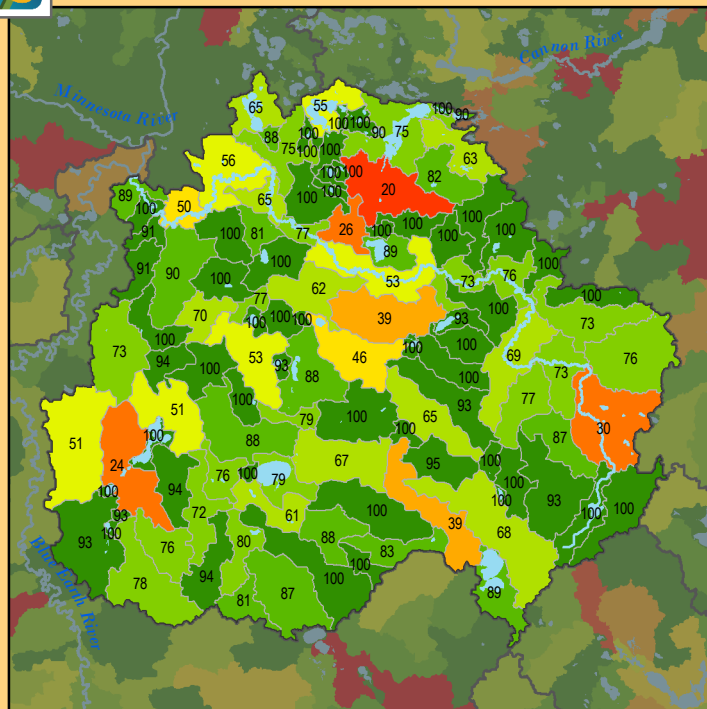
### Health Score Distributions:

Le Sueur River

Min: 0  
Max: 62  
Median: 39.0  
Mean: 36.21  
Standard Dev: 13.9



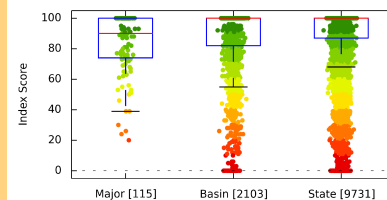
## Aquatic Connectivity



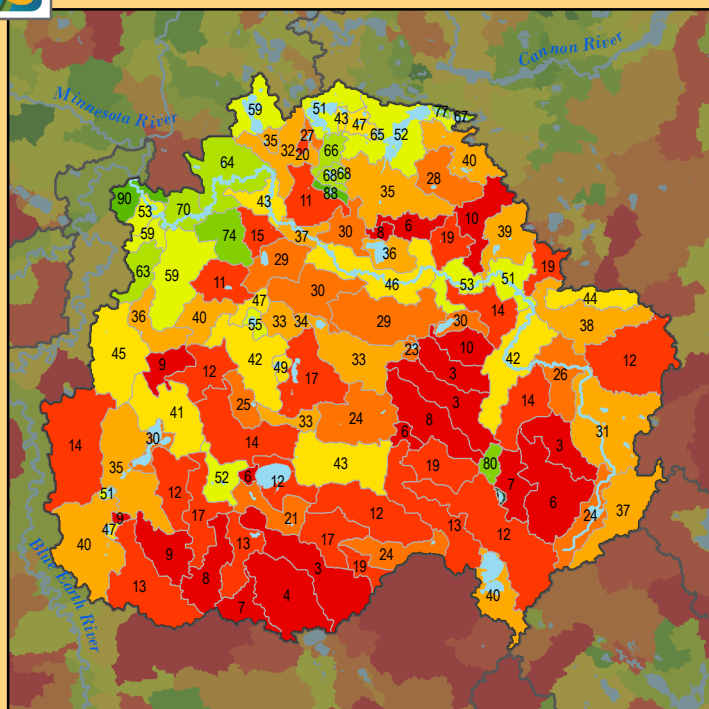
### Health Score Distributions:

Le Sueur River

Min: 20  
Max: 100  
Median: 90.0  
Mean: 83.65  
Standard Dev: 19.55



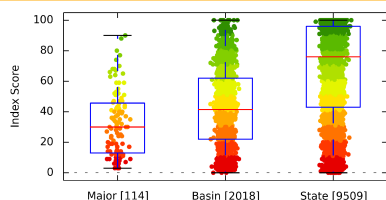
## Riparian Connectivity



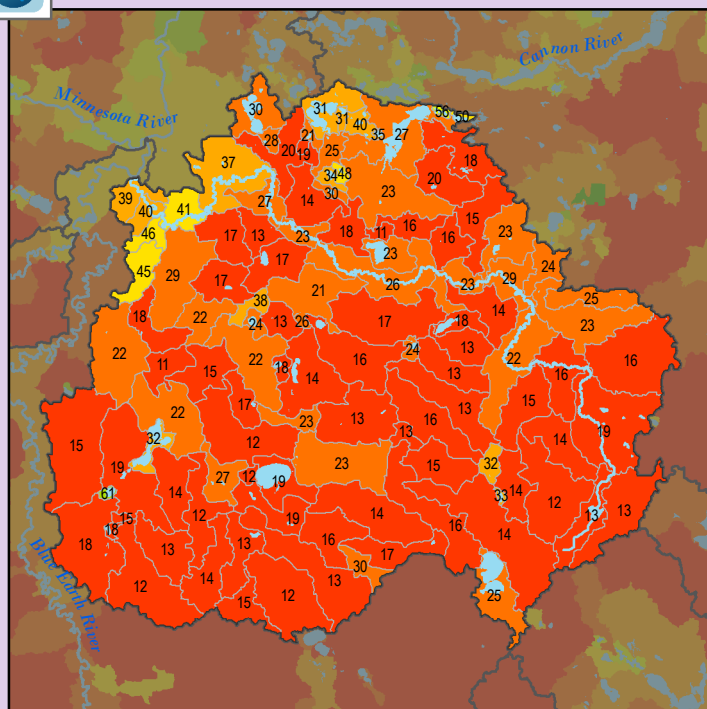
### Health Score Distributions:

Le Sueur River

Min: 3  
Max: 90  
Median: 30.0  
Mean: 32.23  
Standard Dev: 21.05



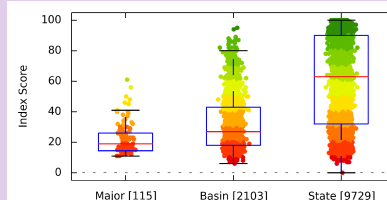
## Non-Point Source - Phosphorus Risk



### Health Score Distributions:

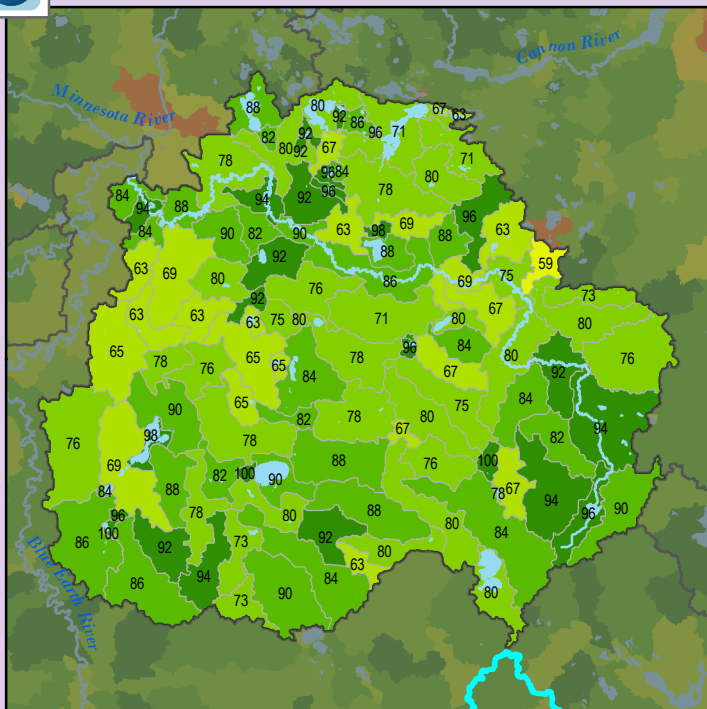
Le Sueur River

Min: 11  
Max: 61  
Median: 19.0  
Mean: 22.03  
Standard Dev: 10.06



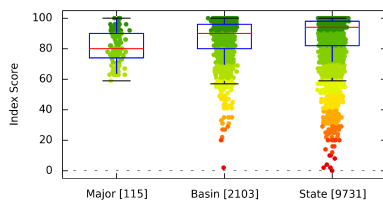


## Localized Pollution Sources

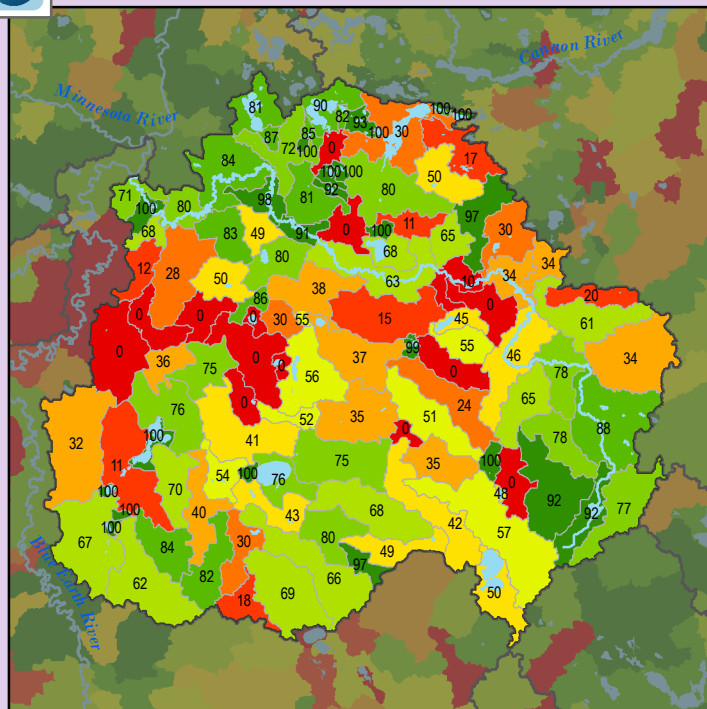


### Health Score Distributions:

Le Sueur River  
Min: 59  
Max: 100  
Median: 80.0  
Mean: 81.17  
Standard Dev: 10.57

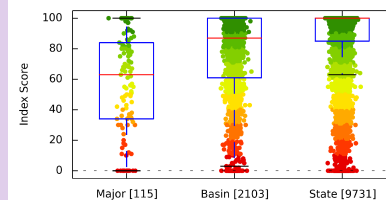


## Localized Pollution Sources - Animal Units

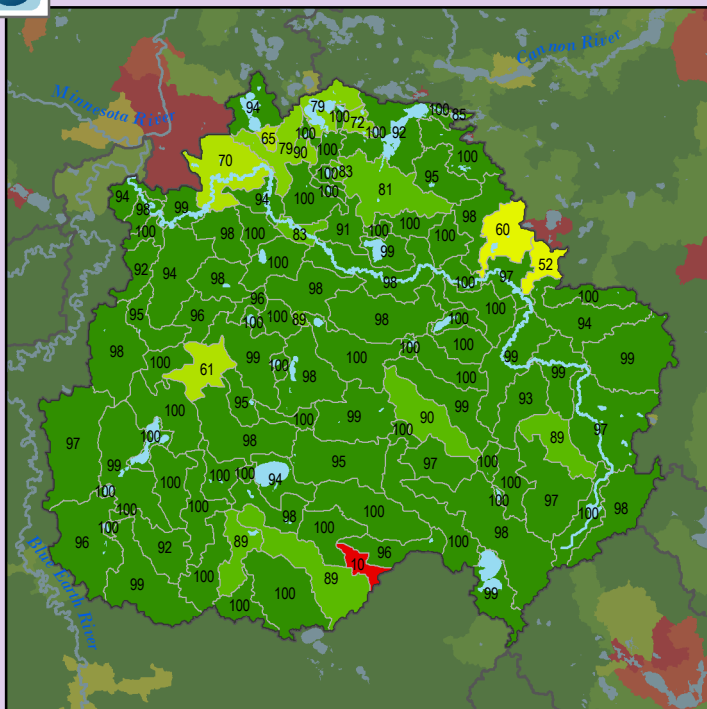


### Health Score Distributions:

Le Sueur River  
Min: 0  
Max: 100  
Median: 63.0  
Mean: 57.29  
Standard Dev: 32.55

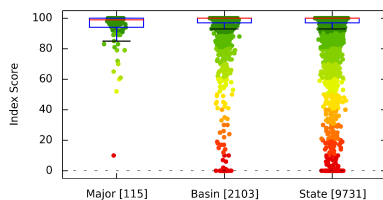


## Localized Pollution Sources - Potential Contaminants



### Health Score Distributions:

Le Sueur River  
Min: 10  
Max: 100  
Median: 99.0  
Mean: 94.37  
Standard Dev: 11.91

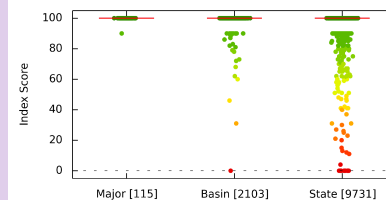


## Localized Pollution Sources - Superfund Sites



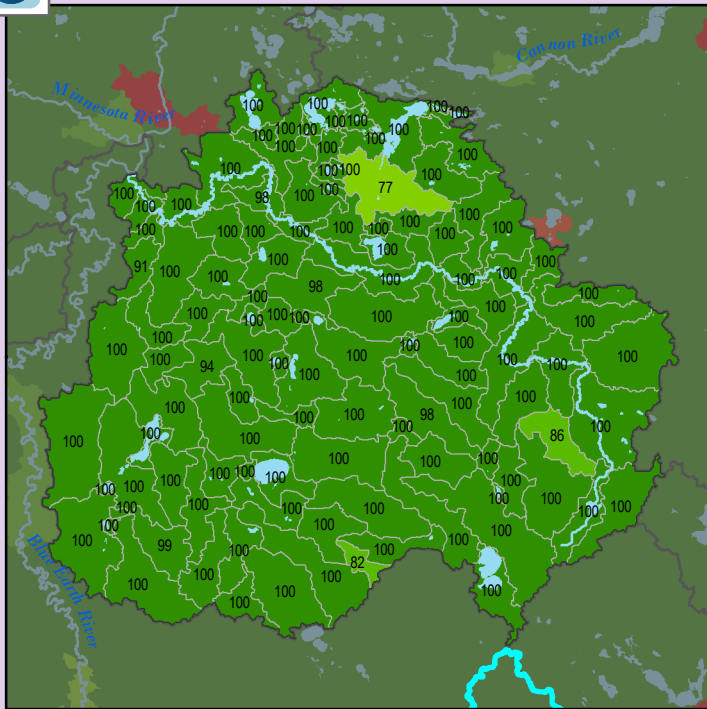
### Health Score Distributions:

Le Sueur River  
Min: 90  
Max: 100  
Median: 100.0  
Mean: 99.91  
Standard Dev: 0.93





## Localized Pollution Sources - Wastewater Treatment



### Health Score Distributions:

Le Sueur River

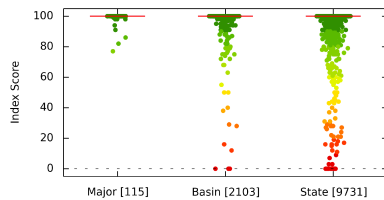
Min: 77

Max: 100

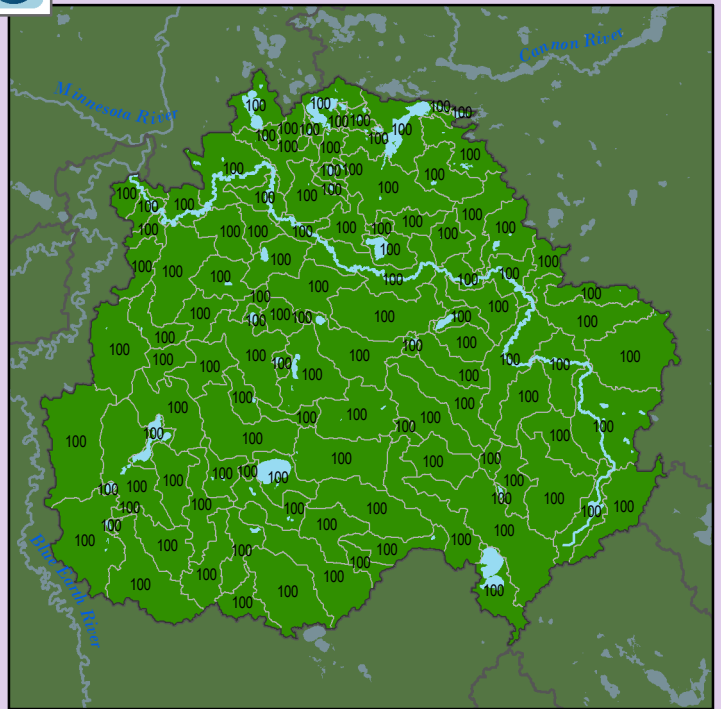
Median: 100.0

Mean: 99.33

Standard Dev: 3.13



## Localized Pollution Sources - Open Pit Mines



### Health Score Distributions:

Le Sueur River

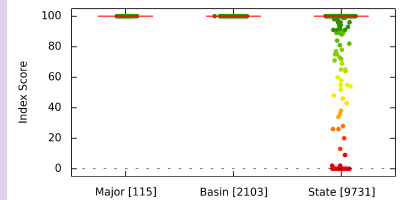
Min: 100

Max: 100

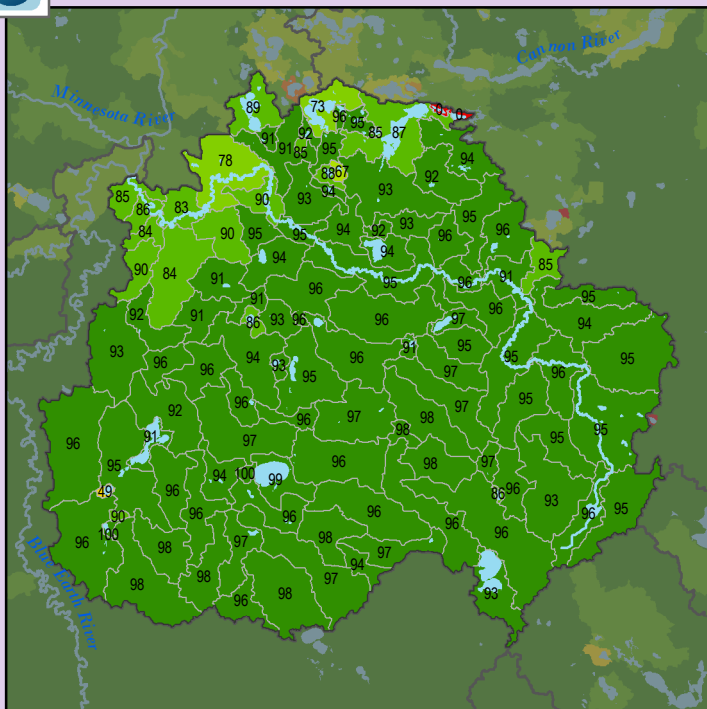
Median: 100.0

Mean: 100.0

Standard Dev: 0.0



## Localized Pollution Sources - Septic Systems



### Health Score Distributions:

Le Sueur River

Min: 0

Max: 100

Median: 95.0

Mean: 91.22

Standard Dev: 13.76

