

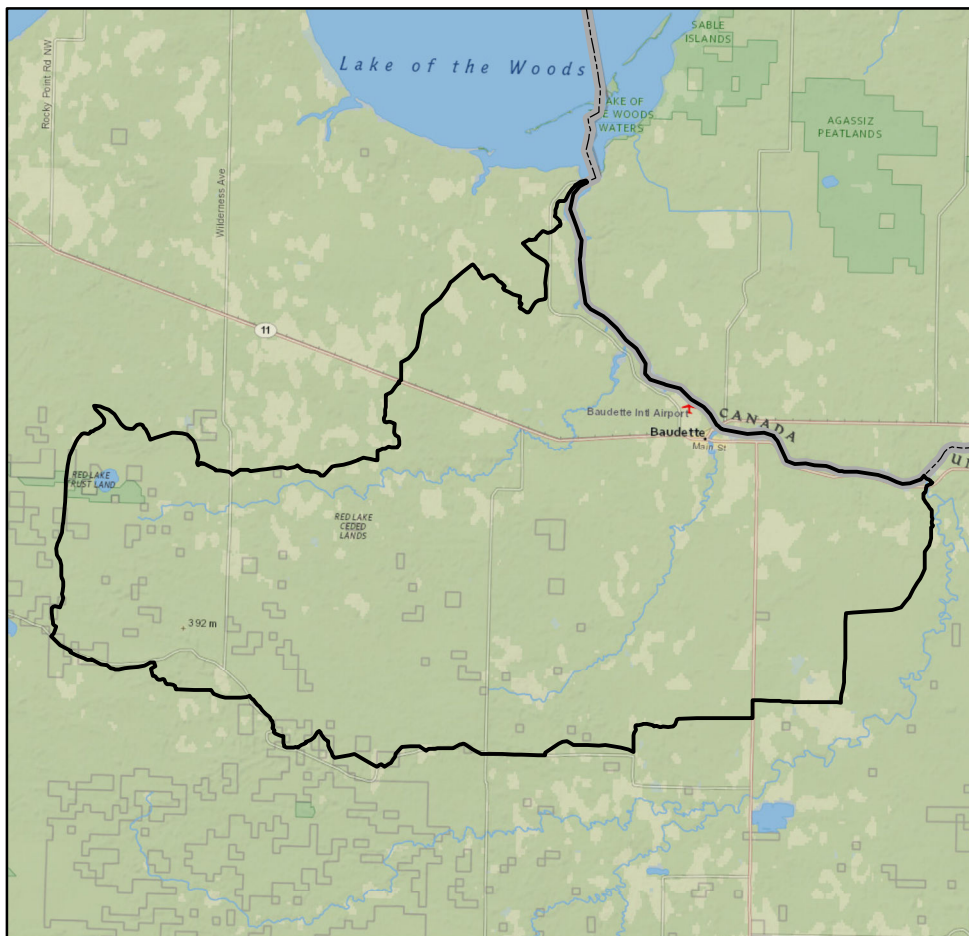


Watershed Health Assessment Framework

"Managing for System Health"



Watershed Report Card: Rainy R-Baudette



People and Places:

Watershed Population:

2000 census - 2,665

2010 census - 2,372

Largest Cities - Population:

Baudette - 1,106

Faunce - None

Clementson - None

Judy's East Side Trailer Park - None

Pitt - None

Counties - % of watershed:

Lake of the Woods - 100 %

Koochiching - 0 %

Watershed Area:

Watershed size:

196,592 acres

307 square miles

Watershed Surface Area:

Percent Land - 99 %

Percent Water - 1 %

HUC8 ID:

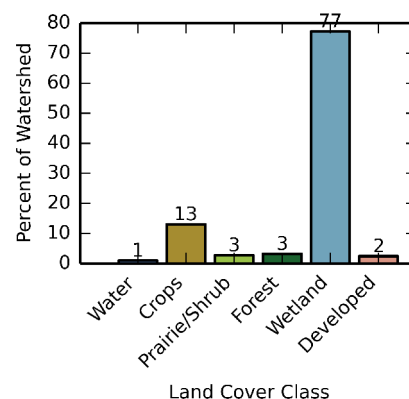
09030008

Basin Name:

Rainy River (0903)

Land Use:

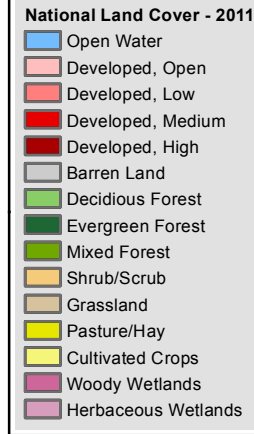
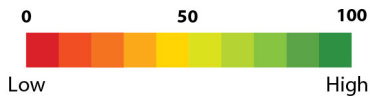
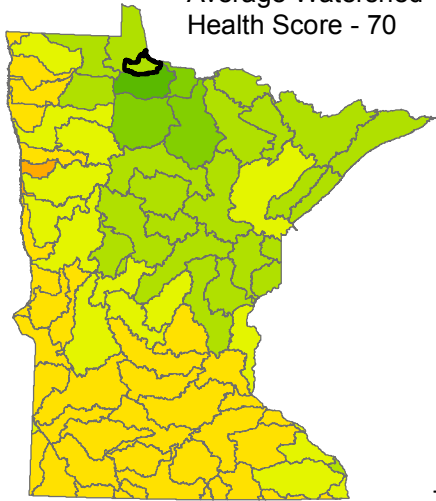
Percent of watershed area by land cover type:



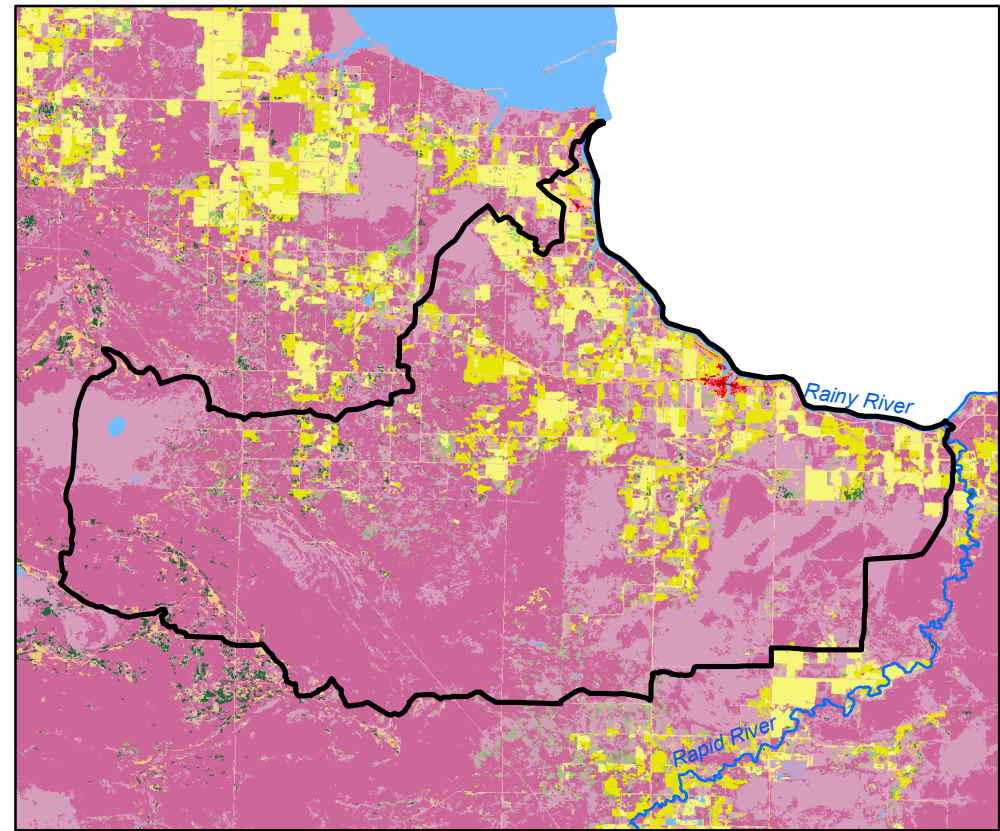
Watershed Health Report - Major Watershed

Rainy R-Baudette

Average Watershed
Health Score - 70



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) 77

Index Scores

Perennial Cover*	90
Impervious Cover*	90
Water Withdrawal*	99
Flow Variability	58
Hydrologic Storage	63
Sub-Scores	
Altered Streams*	30
Surface Storage	95



Geomorphology

Component Health Score
(index average) 84

Index Scores

Soil Erosion Potential*	91
Groundwater Susceptibility	71
Climate Vulnerability	90



Biology

Component Health Score
(index average) 50

Index Scores

Terrestrial Habitat Quality*	60
Stream Species Quality*	54
Species Richness	58
At-Risk Species Richness	27



Connectivity

Component Health Score
(index average) 66

Index Scores

Terrestrial Habitat Connectivity	73
Aquatic Connectivity*	68
Riparian Connectivity*	91



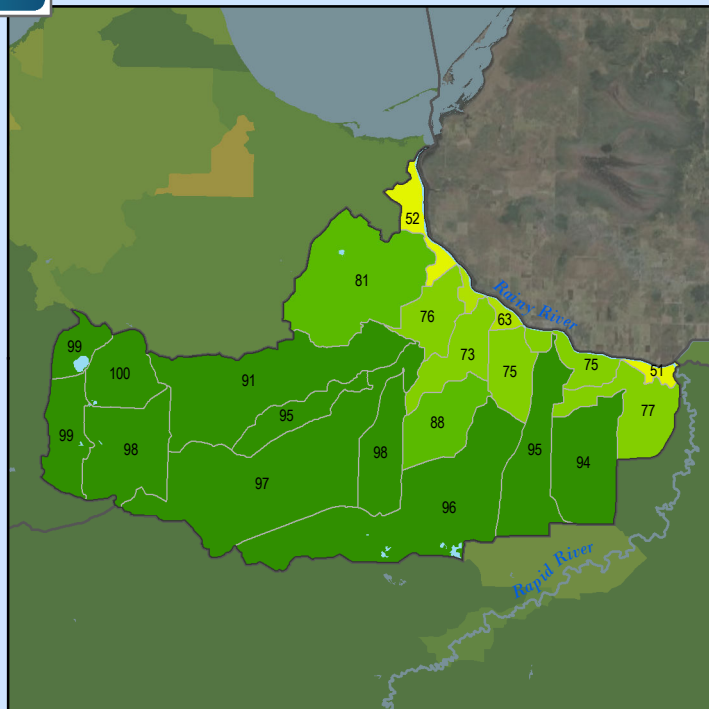
Water Quality

Component Health Score
(index average) 72

Index Scores

Non-Point Pollution Sources	63
Sub-Score	
Phosphorus Risk*	92
Localized Pollution Sources*	98
Assessments	56

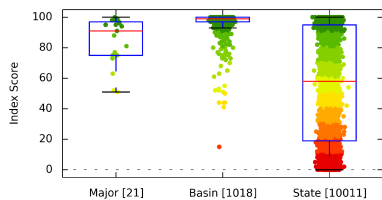
Perennial Cover (2011)



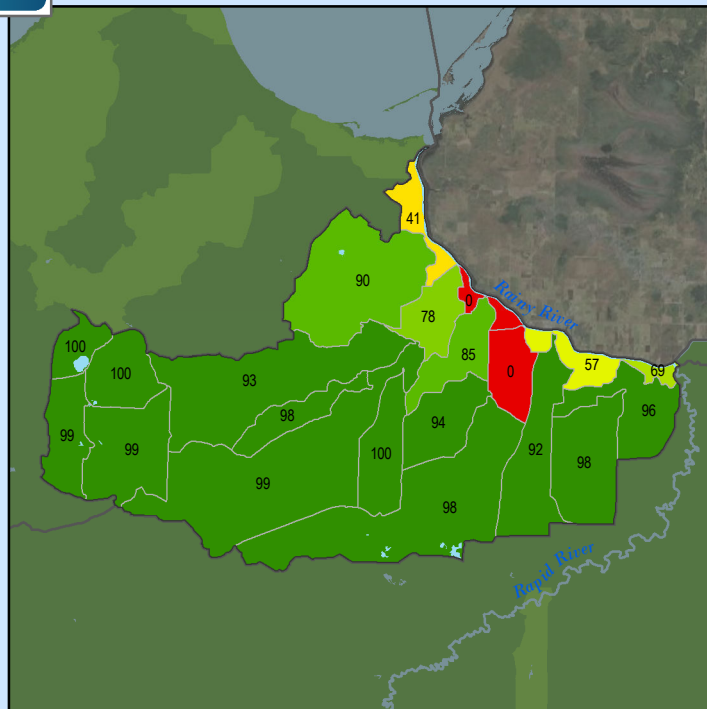
Health Score Distributions:

Rainy R-Baudette

Min: 51
Max: 100
Median: 91.0
Mean: 84.43
Standard Dev: 15.08



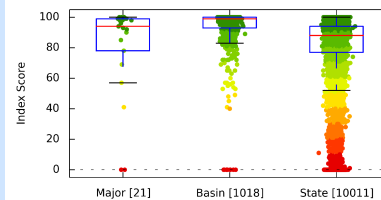
Impervious Cover (2011)



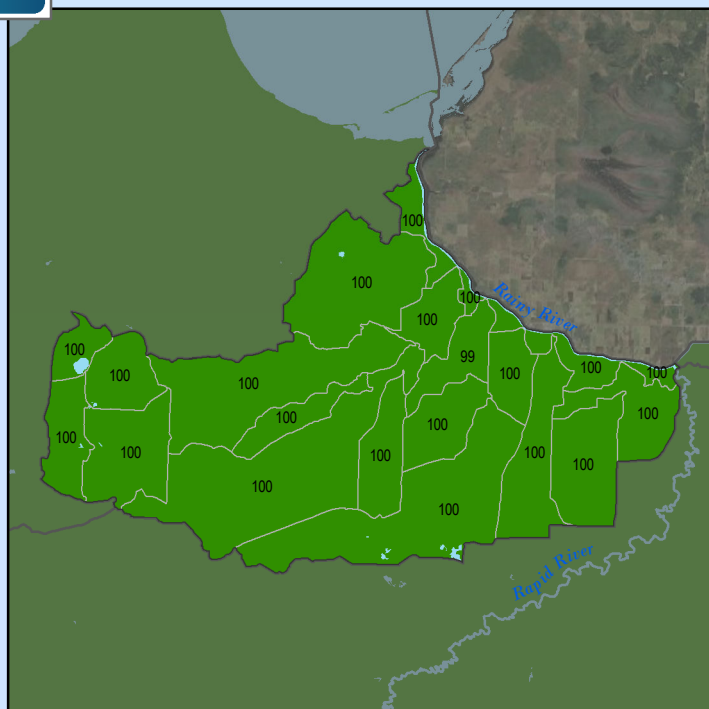
Health Score Distributions:

Rainy R-Baudette

Min: 0
Max: 100
Median: 94.0
Mean: 80.29
Standard Dev: 30.17



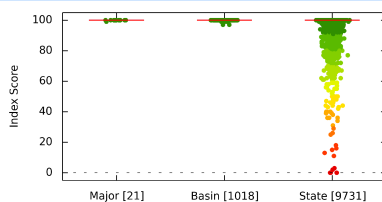
Water Withdrawal Index



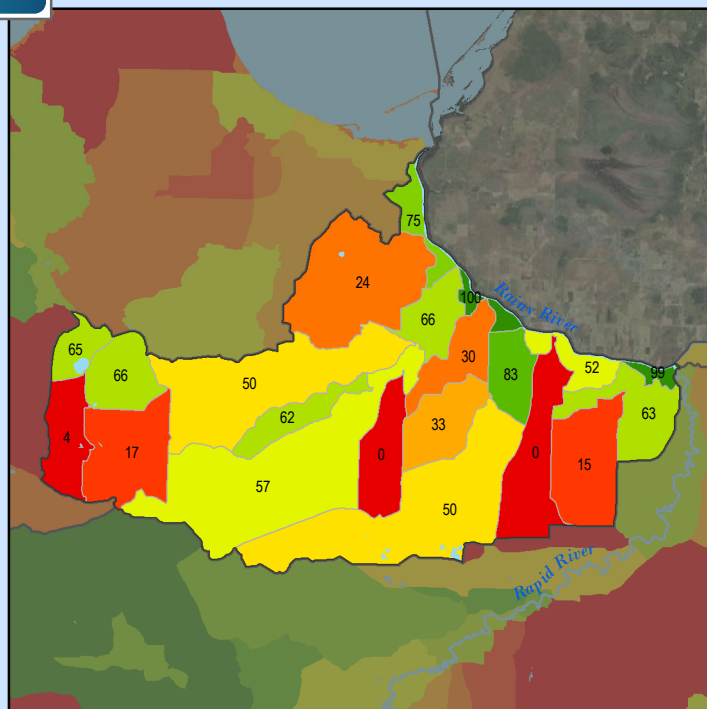
Health Score Distributions:

Rainy R-Baudette

Min: 99
Max: 100
Median: 100.0
Mean: 99.95
Standard Dev: 0.21



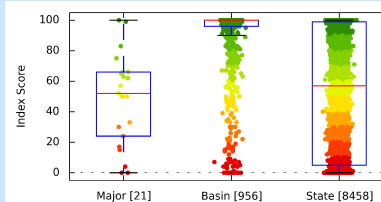
Altered Streams



Health Score Distributions:

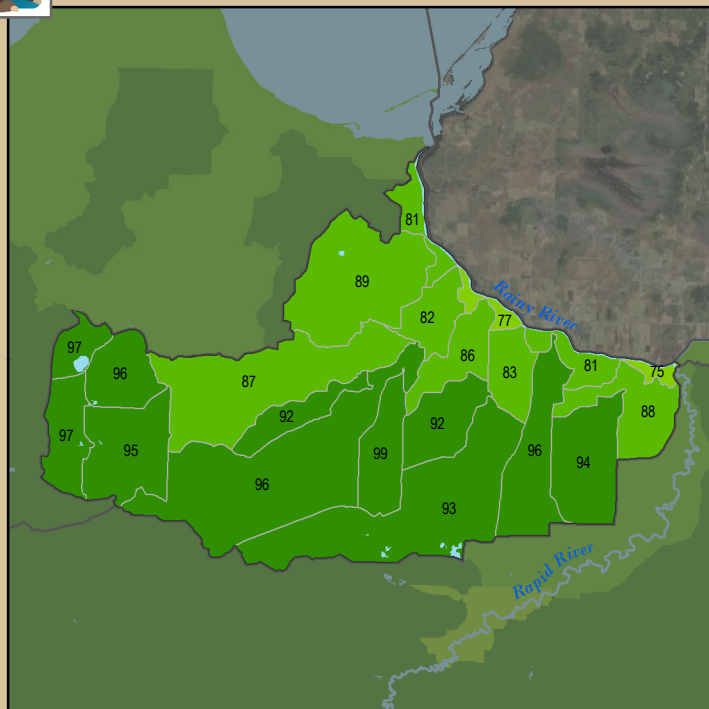
Rainy R-Baudette

Min: 0
Max: 100
Median: 52.0
Mean: 48.14
Standard Dev: 29.63





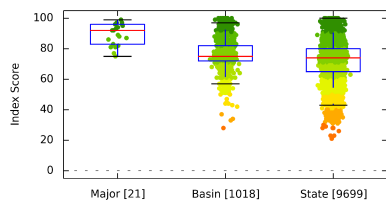
Soil Erosion Potential



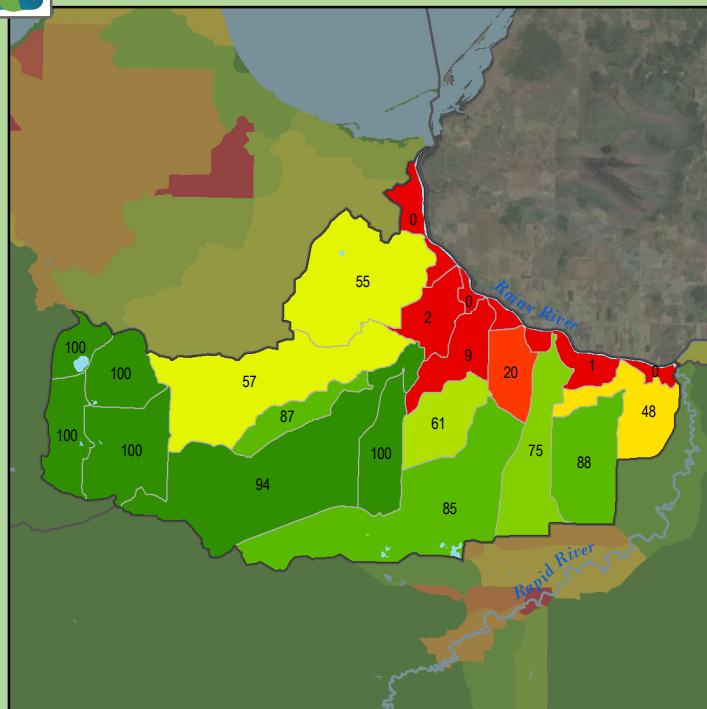
Health Score Distributions:

Rainy R-Baudette

Min: 75
Max: 99
Median: 92.0
Mean: 89.33
Standard Dev: 7.02



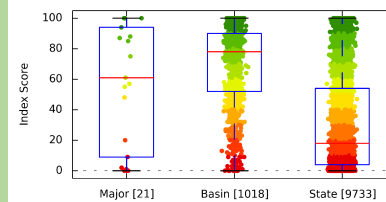
Terrestrial Habitat Quality



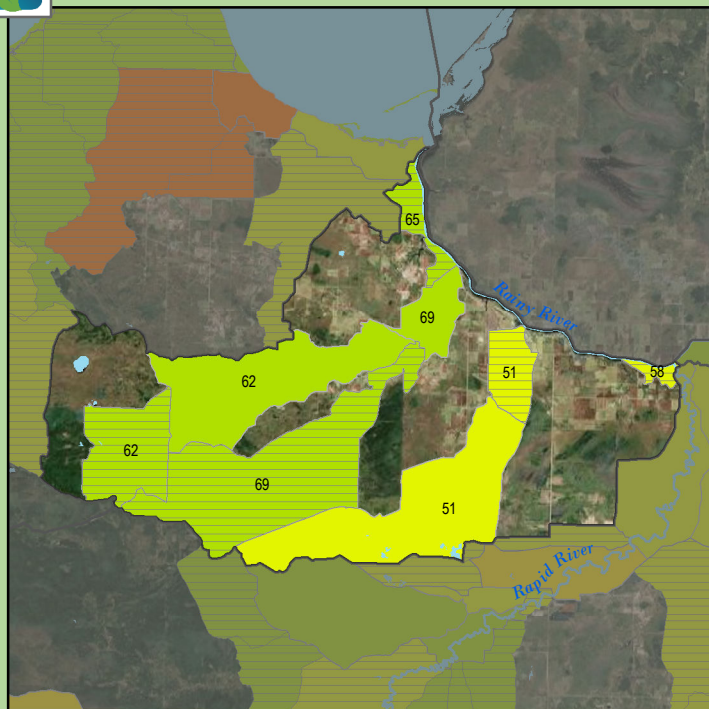
Health Score Distributions:

Rainy R-Baudette

Min: 0
Max: 100
Median: 61.0
Mean: 56.29
Standard Dev: 39.79



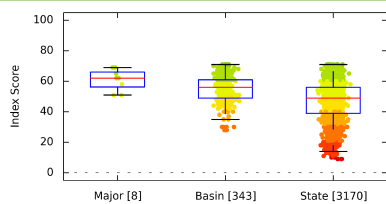
Stream Species Quality - Mussel Score



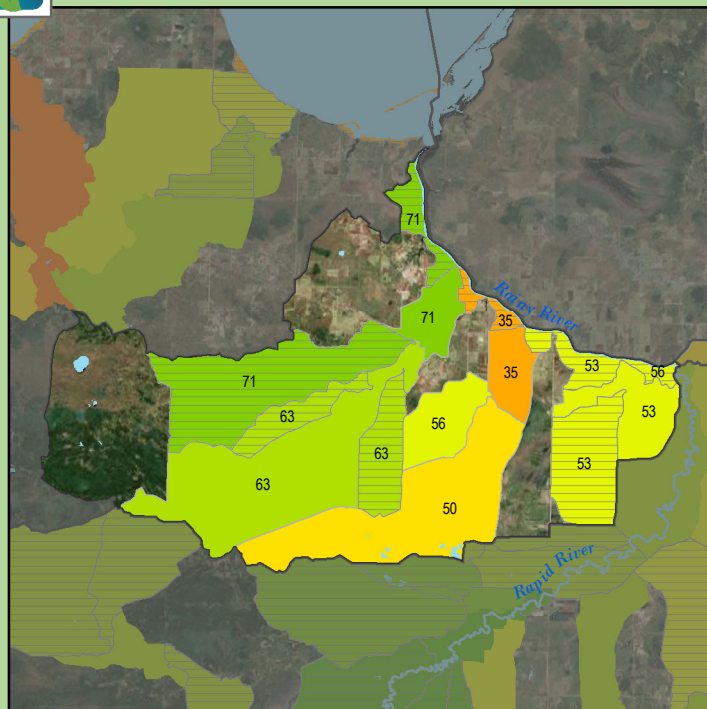
Health Score Distributions:

Rainy R-Baudette

Min: 51
Max: 69
Median: 62.0
Mean: 60.88
Standard Dev: 6.66



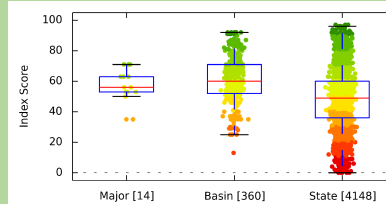
Stream Species Quality - Aquatic Invertebrate IBI



Health Score Distributions:

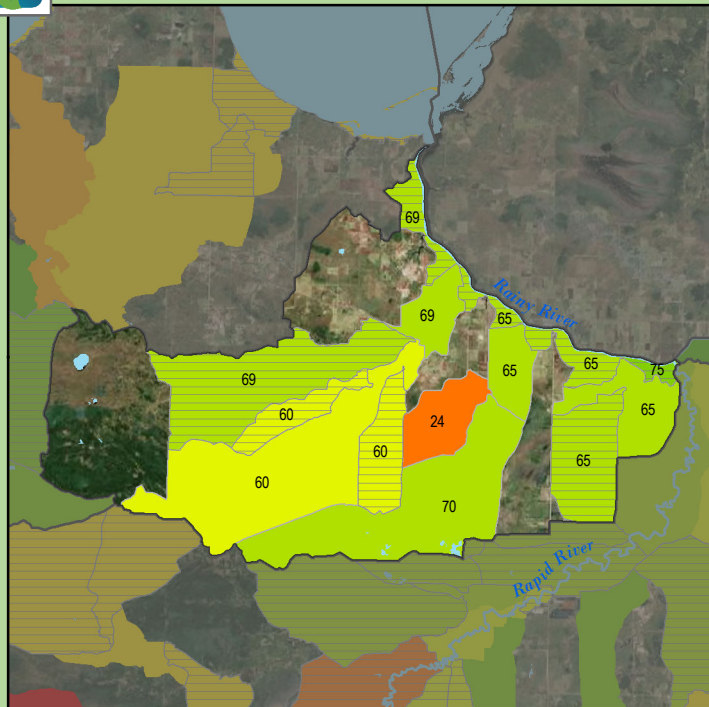
Rainy R-Baudette

Min: 35
Max: 71
Median: 56.0
Mean: 56.64
Standard Dev: 11.22





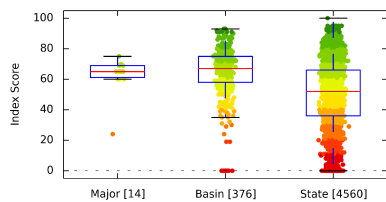
Stream Species Quality - Fish IBI



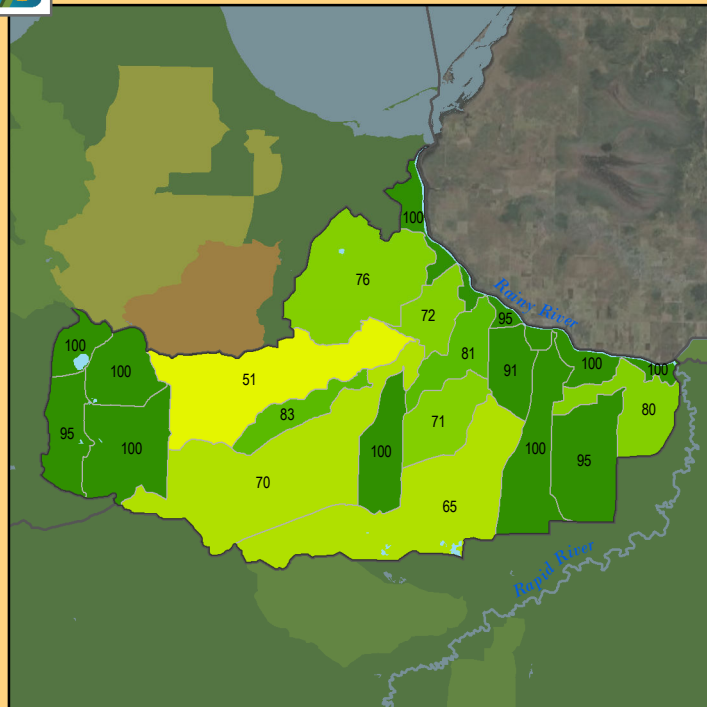
Health Score Distributions:

Rainy R-Baudette

Min: 24
Max: 75
Median: 65.0
Mean: 62.93
Standard Dev: 11.55



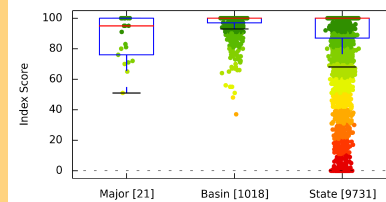
Aquatic Connectivity



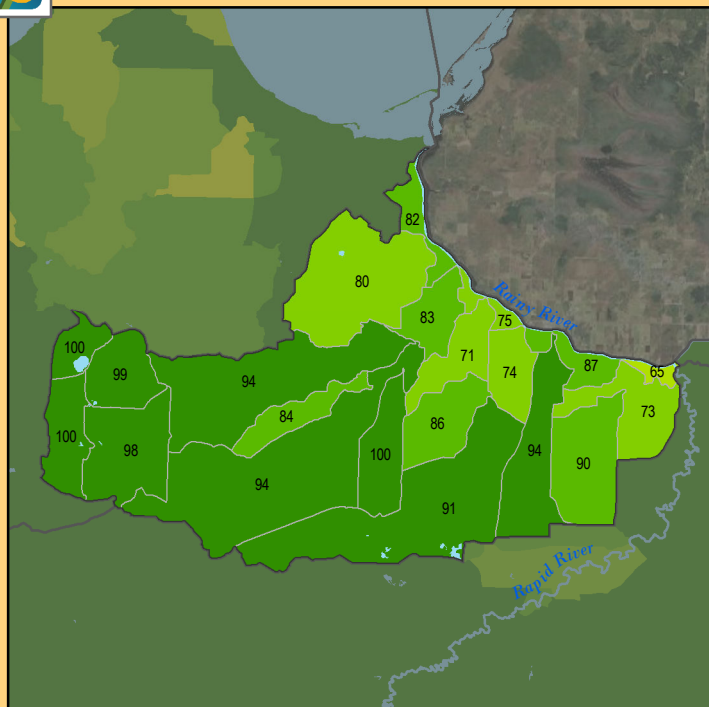
Health Score Distributions:

Rainy R-Baudette

Min: 51
Max: 100
Median: 95.0
Mean: 86.9
Standard Dev: 14.36



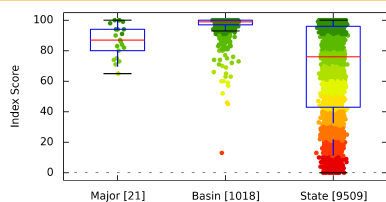
Riparian Connectivity



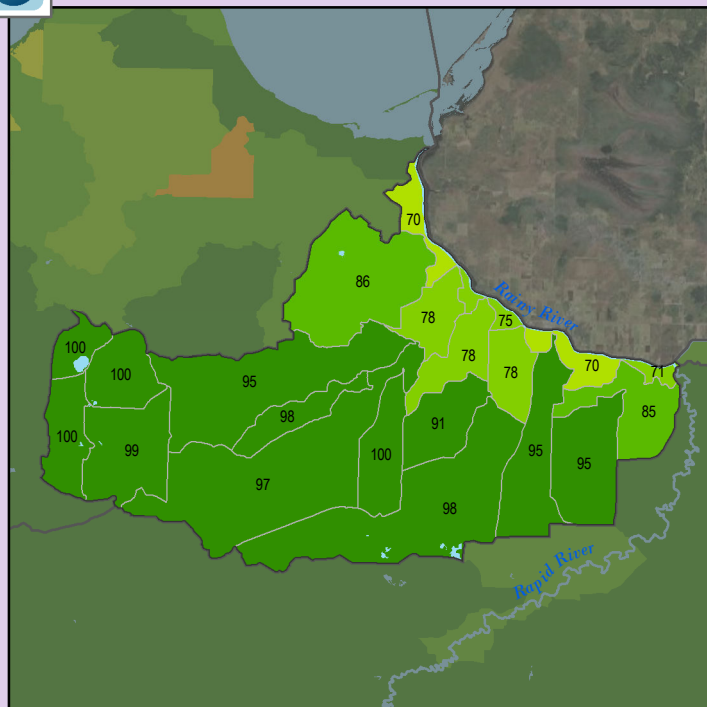
Health Score Distributions:

Rainy R-Baudette

Min: 65
Max: 100
Median: 87.0
Mean: 86.67
Standard Dev: 10.44



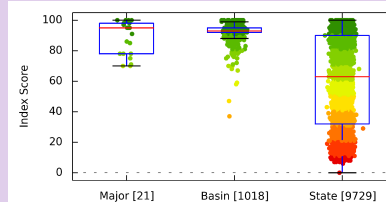
Non-Point Source - Phosphorus Risk



Health Score Distributions:

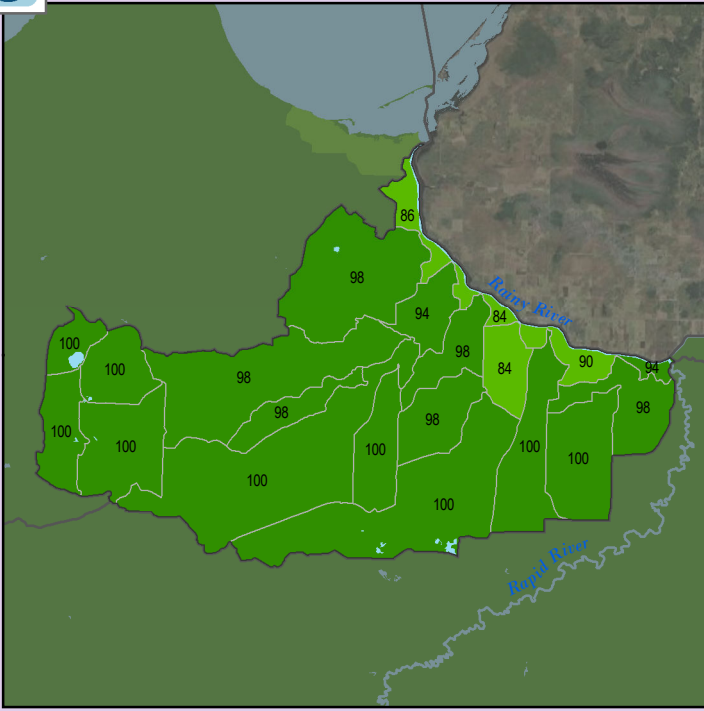
Rainy R-Baudette

Min: 70
Max: 100
Median: 95.0
Mean: 88.52
Standard Dev: 11.01





Localized Pollution Sources



Health Score Distributions:

Rainy R-Baudette

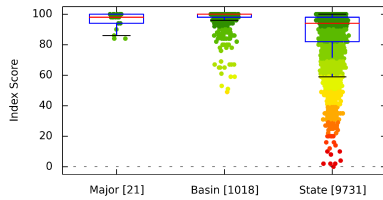
Min: 84

Max: 100

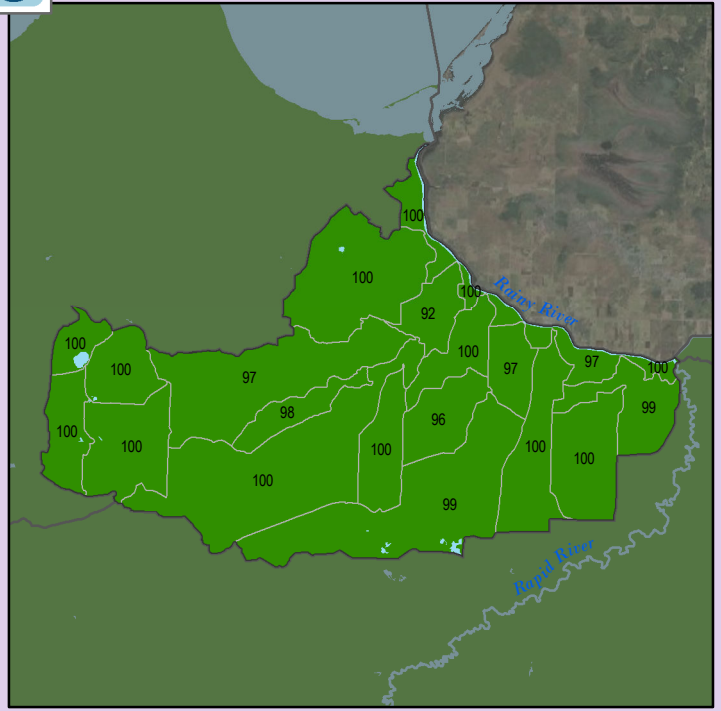
Median: 98.0

Mean: 96.19

Standard Dev: 5.34



Localized Pollution Sources - Animal Units



Health Score Distributions:

Rainy R-Baudette

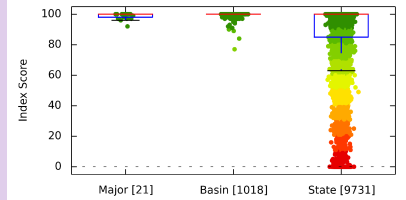
Min: 92

Max: 100

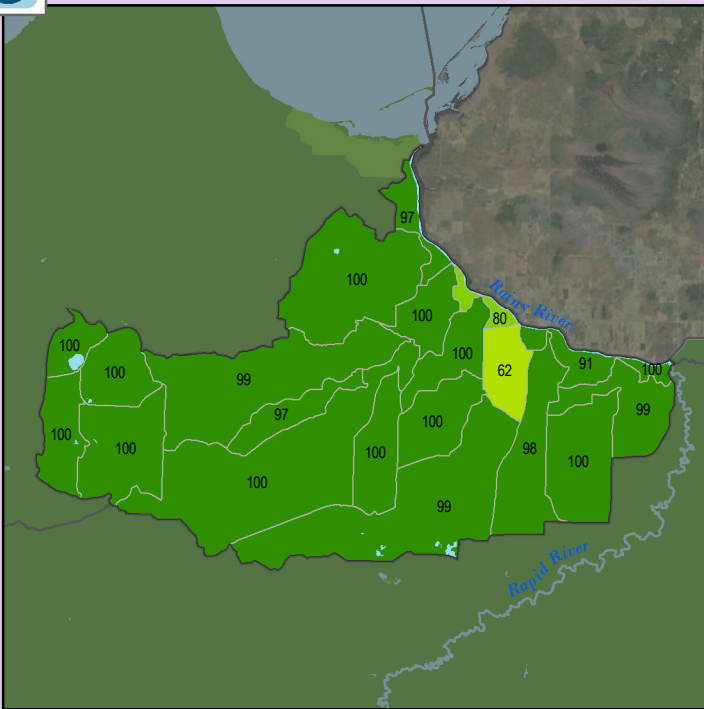
Median: 100.0

Mean: 98.81

Standard Dev: 1.99



Localized Pollution Sources - Potential Contaminants



Health Score Distributions:

Rainy R-Baudette

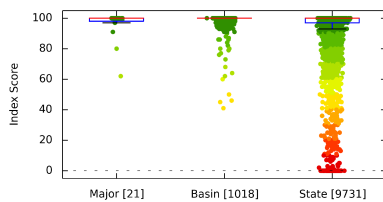
Min: 62

Max: 100

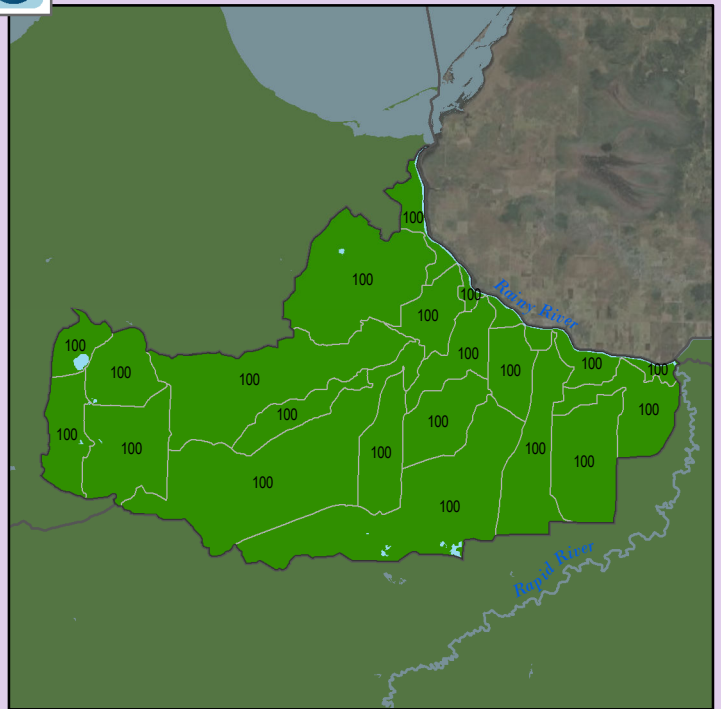
Median: 100.0

Mean: 96.29

Standard Dev: 8.89



Localized Pollution Sources - Superfund Sites



Health Score Distributions:

Rainy R-Baudette

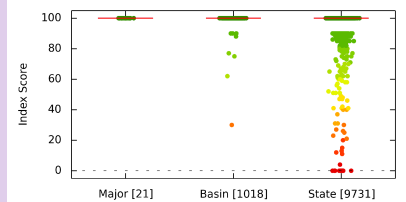
Min: 100

Max: 100

Median: 100.0

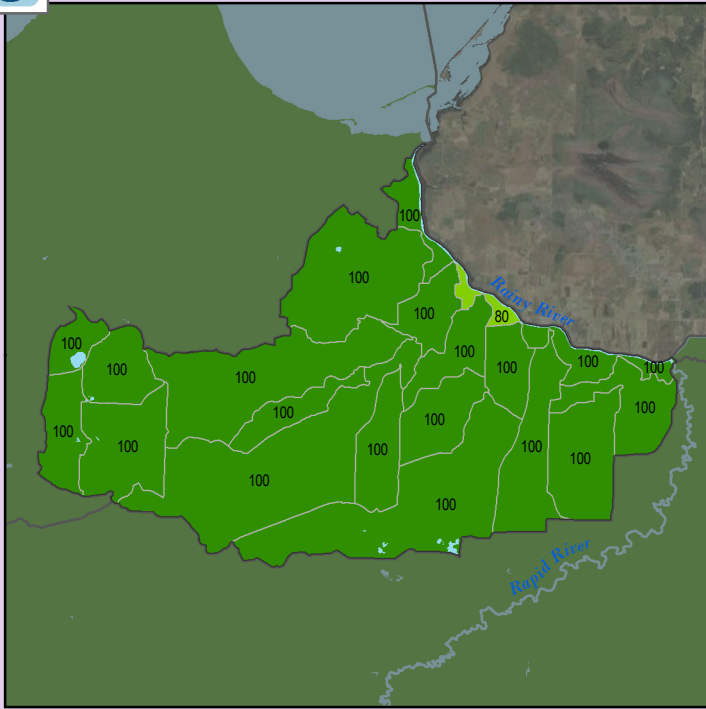
Mean: 100.0

Standard Dev: 0.0





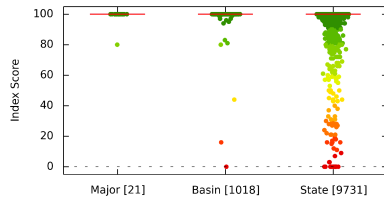
Localized Pollution Sources - Wastewater Treatment



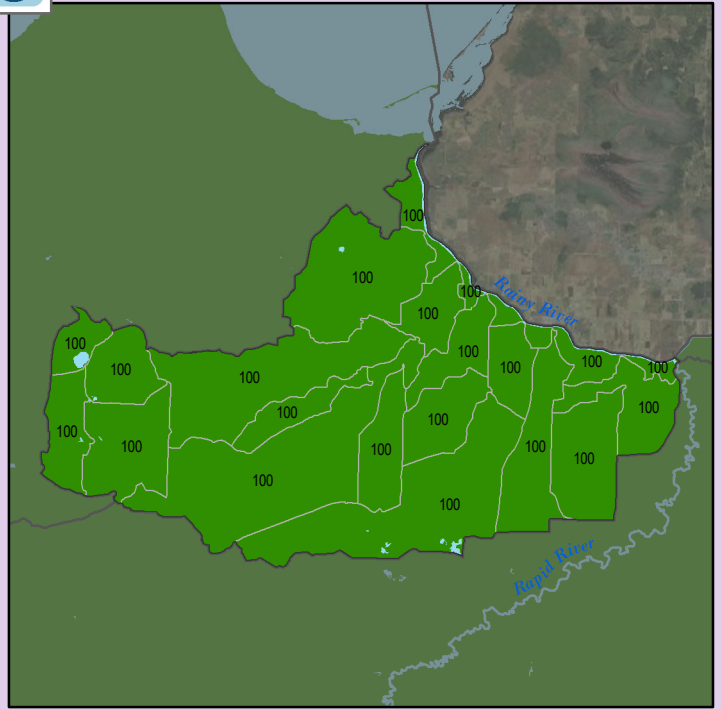
Health Score Distributions:

Rainy R-Baudette

Min: 80
Max: 100
Median: 100.0
Mean: 99.05
Standard Dev: 4.26



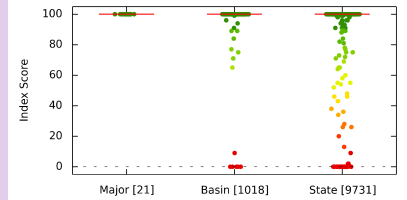
Localized Pollution Sources - Open Pit Mines



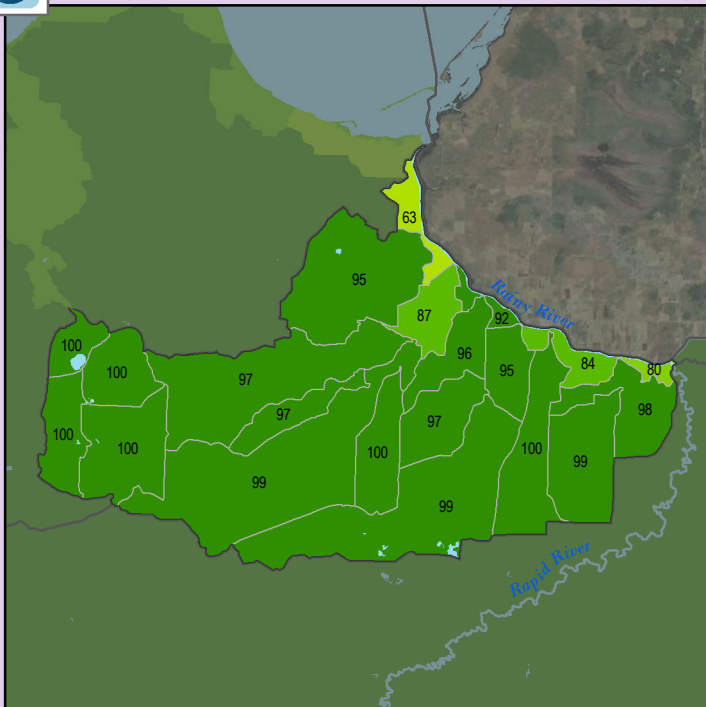
Health Score Distributions:

Rainy R-Baudette

Min: 100
Max: 100
Median: 100.0
Mean: 100.0
Standard Dev: 0.0



Localized Pollution Sources - Septic Systems



Health Score Distributions:

Rainy R-Baudette

Min: 63
Max: 100
Median: 97.0
Mean: 94.19
Standard Dev: 8.86

