

Keene Creek Draft Goal Numbers

Advisory Committee

The background features a series of concentric, overlapping circles in light gray, some solid and some dashed, creating a ripple effect. A prominent red callout box is centered on the page, containing the text 'Watershed Map'.

Watershed Map

Watershed Information

- **Second Largest tributary to Lake Superior between Duluth and Two Harbors**
- **37.75 square miles watershed**
- **23 mile long river with 50 miles of tributaries**
- **Major roads in the watershed area:**
 - **HWY 61, McQuade, Ryan, Bergquist and the Fox Farm.**

A red speech bubble graphic with a white outline, containing the text 'Surface Water Quality'. The bubble has a tail pointing downwards and to the left.

Surface Water Quality



X% of municipalities
with identified bacteria
impairments are
implementing plans to
reduce bacteria in
surface waters.

Add map


- **Keene Creek is impaired for aquatic life and aquatic recreation due to E. coli.**

Add map

Who are the “municipalities”?

- **City of Duluth**
- **City of Hermantown**

- **Both Cities must comply to MS4 requirements.**



100% of municipalities with identified bacteria impairments are implementing plans to reduce bacteria in surface waters.



1. Manage chlorides reaching surface and ground water from road salts and water softener salts by ensuring **X%** of municipalities have Smart Salt Certified Staff
2. **X%** Communities achieved Level 2 Certified
3. Education & outreach to **X%** of priority landowners.

Add map

Road Authorities

- **City of Duluth**
- **City of Hermantown**
- **St. Louis County**

- **All entities have Smart Salt(or the equivalent) Certified staff.**
- **No entities have staff with Level 2 certifications.**

Add map

Priority Landowners for education and Outreach

- Commercial landowners with **more than 3 acres** of land
- X in Duluth
- 4 in Hermantown

- We can reach X of these priority landowners.



1. Manage chlorides reaching surface and ground water from road salts and water softener salts by ensuring **100%** of municipalities have Smart Salt Certified Staff
2. **100%** Communities achieved Level 2 Certified
3. **Education & outreach to X% of priority landowners.**

A red speech bubble graphic with a white outline, containing the text "Land Use". The bubble has a tail pointing downwards and to the left.

Land Use



X% of communities have updated their ordinances to promote and implement low impact development techniques to reduce stormwater runoff volume and rate control.

Add map

Who are the “communities”?

- **City of Duluth**
- **City of Hermantown**



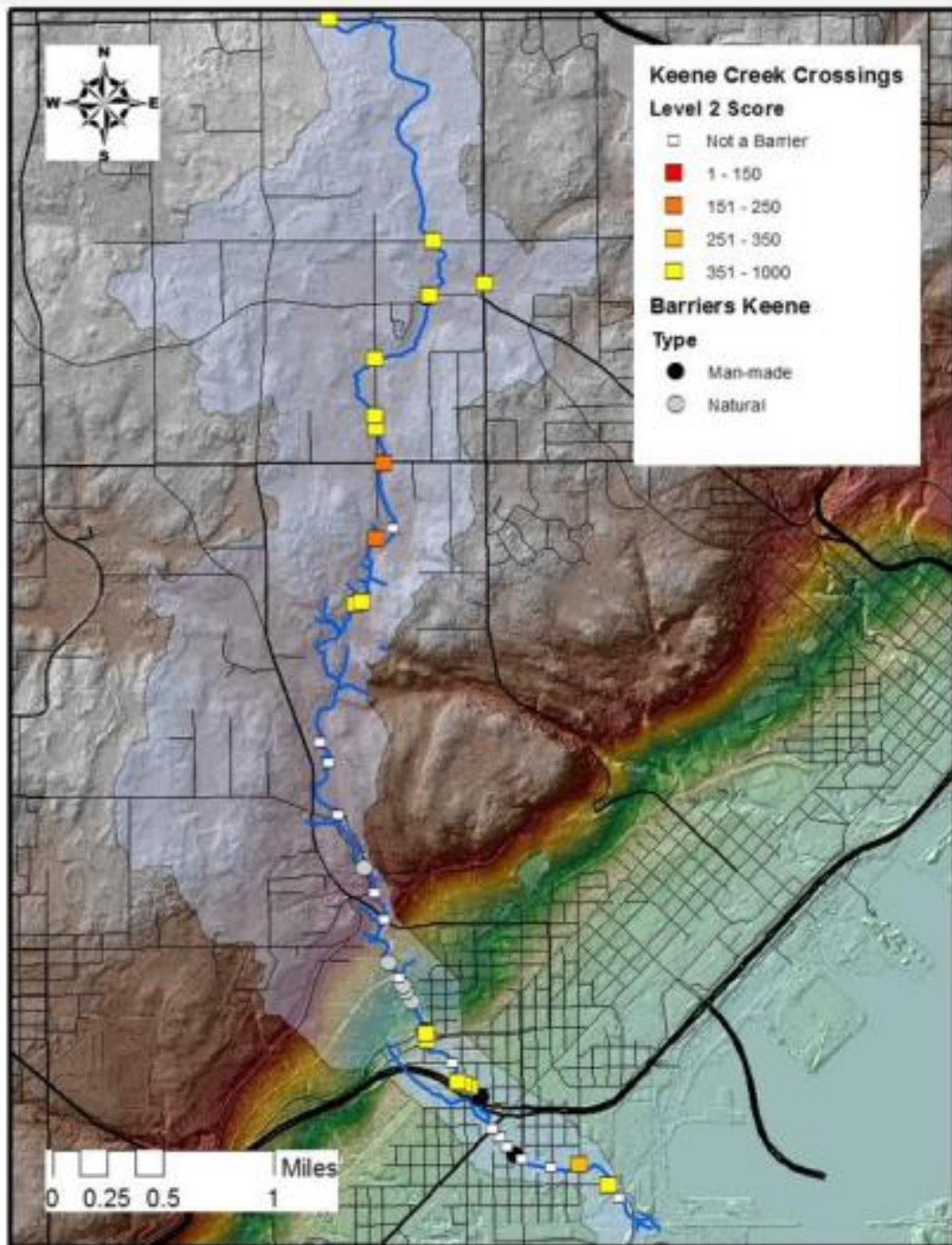
100% of communities have updated their ordinances to promote and implement low impact development techniques to reduce stormwater runoff volume and rate control.

A red speech bubble graphic with a white outline, containing the text "Altered Hydrology". The bubble has a tail pointing downwards and to the left.

Altered Hydrology



Reconnect **X miles** of priority streams and tributaries to benefit aquatic life and improve water quality.



- Inventoried and analyzed in 2016 by SSL SWCD staff
- Data collected using the DNR data form
- Prioritized based on fish passability (width of culvert, outlet drop, sediment present)

○ Crossing	○ Distance Opened (miles)
○ Okerstrom Road (w/in Keene Creek Park)	○ 0.21
○ South Central Ave	○ 1.35
○ Dog Park – lowhead dam	○ 0.14

Reconnect **1.7 miles (the top 2 crossings and dog park dam)** of priority streams and tributaries to benefit aquatic life and improve water quality.




Restore stream reaches that have been altered by human activity, including impounded, straightened, and incised stream reaches on **X Linear Feet** of high priority streams and tributaries.

A large red rectangular box with a white border and a small red triangle pointing downwards at the bottom center, serving as a placeholder for a map.

Add map

- **Geomorphic data collected in 2016 by SWCD staff, confirmed in 2019**

○ Location	○ Reach Length (linear feet)
○ Within Irving Park, downstream of 57th Ave West (3)	○ 690
○ Between 57th Ave West and Grand Ave (4)	○ 2008
○ Between Grand Ave and Green Street (includes dog park) (5)	○ 1905
○ Between Green Street and Cody Street (6)	○ 760
○ Downstream of Highland Street (8)	○ 732
○ Adjacent to Okerstrom Road upstream of Morris Thomas Rd.	○ 1200
○ Engwall's Pond	○ 1200



Restore stream reaches that have been altered by human activity, including impounded, straightened, and incised stream reaches on **5,000 Linear Feet (addressing 4 priority reaches)** of high priority streams and tributaries.



Increase **X square feet** of watershed storage by connecting streams to the floodplain in identified priority areas where incision has occurred due to land use changes, ditching or development activities.

○ Location	○ Reach Length (linear feet)
○ Within Irving Park, downstream of 57th Ave West (3)	○ 690
○ Between 57th Ave West and Grand Ave (4)	○ 2008
○ Between Grand Ave and Green Street (includes dog park) (5)	○ 1905
○ Between Green Street and Cody Street (6)	○ 760
○ Downstream of Highland Street (8)	○ 732
○ Adjacent to Okerstrom Road upstream of Morris Thomas Rd.	○ 1200
○ Engwall's Pond	○ 1200



**5,000 linear feet X 50 foot
wide floodplain (average)**



Increase **2,500 square feet (addressing 4 priority reaches)** of watershed storage by connecting streams to the floodplain in identified priority areas where incision has occurred due to land use changes, ditching or development activities.



Habitat



Shoreline ordinances are updated, developed, and enforced for **X%** of municipalities with priority resource shoreline areas.

Add map

Who are the “municipalities”?

- **City of Duluth**
- **City of Hermantown**



Shoreline ordinances are updated, developed, and enforced for **100%** of municipalities with priority resource shoreline areas.



X% of shoreline in prioritized lakes and streams have natural buffers and near shore areas are protected and restored to reduce erosion using bank stabilization, bioengineering, etc. techniques.

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Protect/Restore **X%** of high priority wild rice stands/populations (water levels, disturbance, shoreland development).

What We Know

- Currently, there are no rice stands, but soil remediation was just completed.
- A starting point for seeding would be 5 to 10 acres.
 - Let's say this is the amount of high priority area.
 - And say we will address all of it = 100%



Protect/Restore **100%** of high priority wild rice stands/populations (water levels, disturbance, shoreland development).