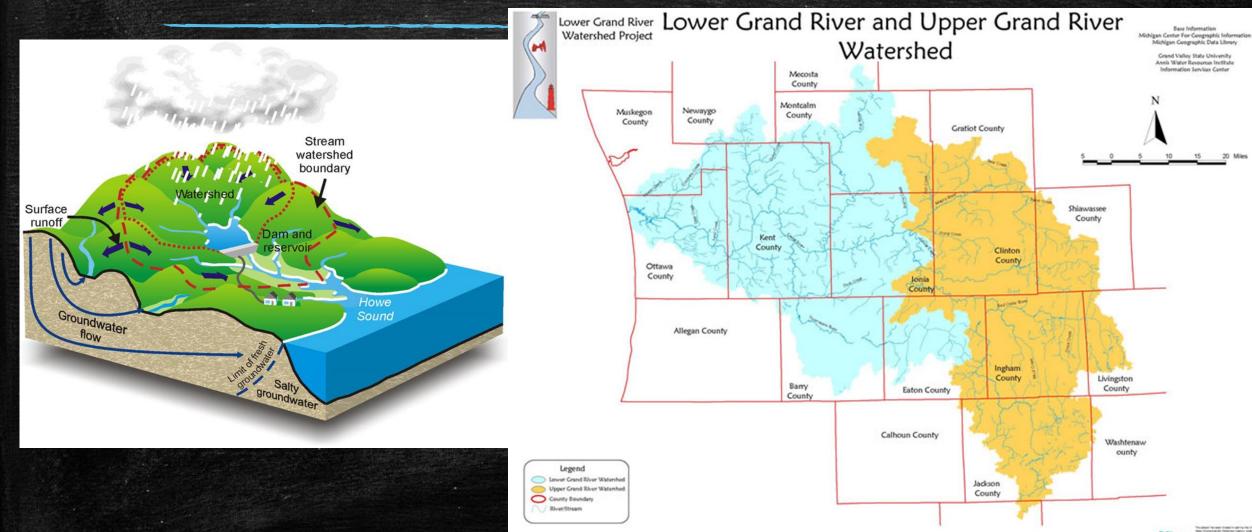
watershed quiz

February 4, 2016 Groundswell Teacher PD Day

1. What is a watershed? Name two watersheds you live in.



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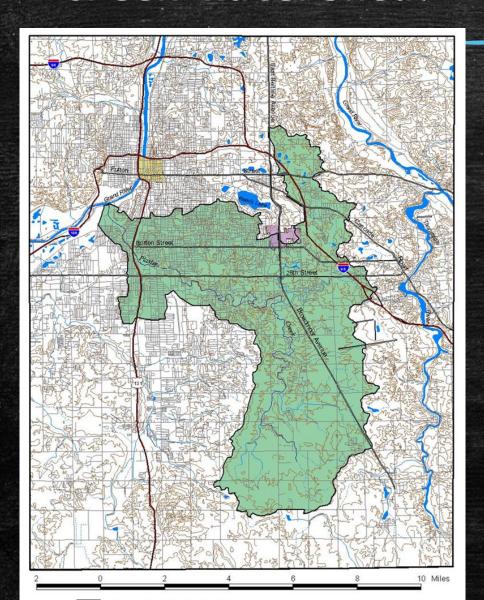
GVMC

planning@gvmc.org

2. What is the translations of Plaster Creek's Native American name?

- a. Water of the Sparkling Rockb. Water of the Walleye **Kee-No-Shay**
- c. Water of the Clouds

How big in square miles is the Plaster Creek Watershed?



Basic statistics:

Stream Length: ~ 14 miles

Watershed area: 58 mi2

Historic land cover: forest

Present land cover: urban commercial & residential, rural residential & agricultural



Main Issues:
Flow Dynamics
Sediment
Bacterial Contamination
Thermal Pollutions
Trash and Toxins



Choose the correct "Impaired Designated Uses" and their causes:

Designated Uses

- a) Agriculture
- b) Body Contact
- c) Aquatic Biodiversity
- d) Swimming
- e) Fishing
- f) Water sports

Pollutants:

- a) Heavy metals
- b) E. coli bacteria
- c) Parasitic aquatic worms
- d) Hydrocarbons
- e) Sediment
- f) Prescriptions medication contamination



How many gallons of water a day does a mature tree "drink"?



30-100 gallons/day

If I pull out a plant in a prairie and a plant in a wetland, which one will have longer roots and why?



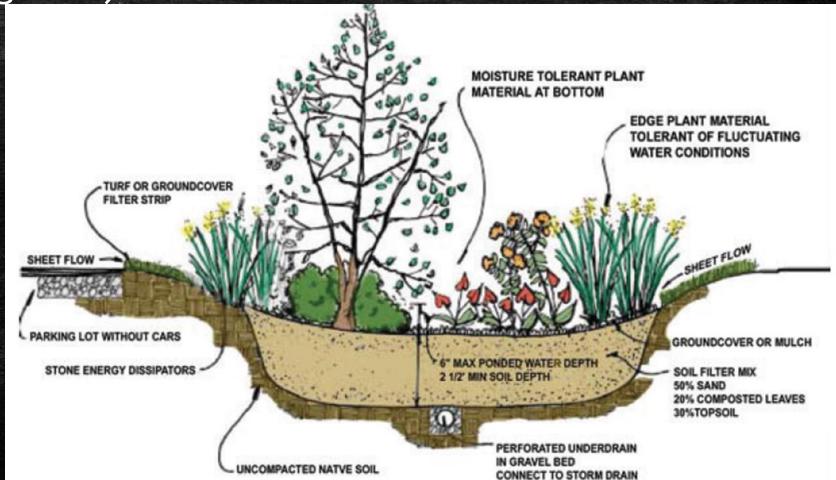
The bulk of the wood's dry-weight can be linked to one source: which one?

Soil Water Sunlight Air



If I'm designing a rain garden that will "drain" a parking lot, how big should the rain garden be relative the parking lot? (give a % where 100% = the size the area of the parking lot)

20-25%



What other factors might go into the sizing, design, and layout of the rain garden?

What % of Grand Rapids is covered by tree canopy?

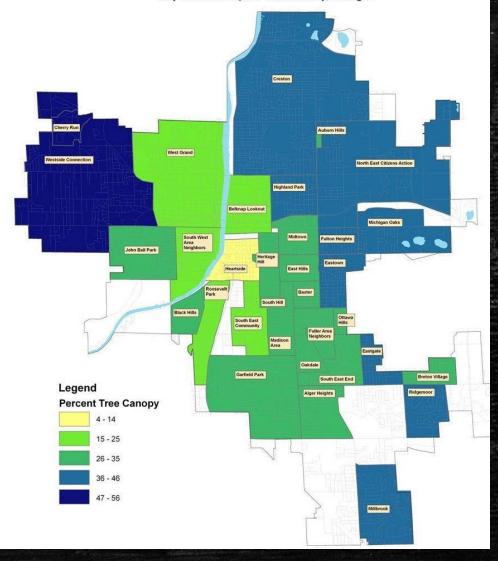
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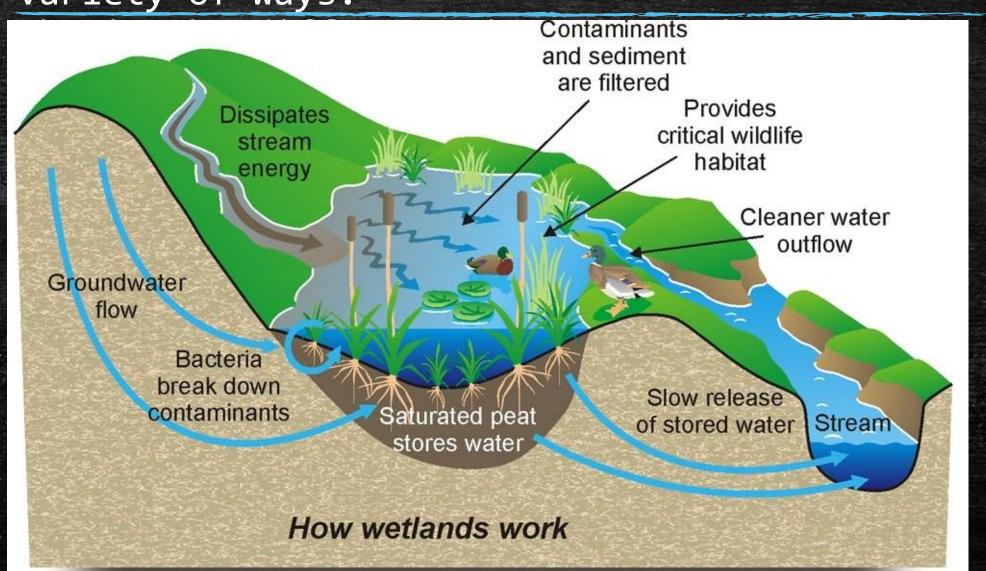
35-36%

Percent Urban Tree Canopy By Neighborhood Associations

City of Grand Rapids - Kent County, Michigan



There are all different types of wetlands that interact with their watersheds in a variety of ways.

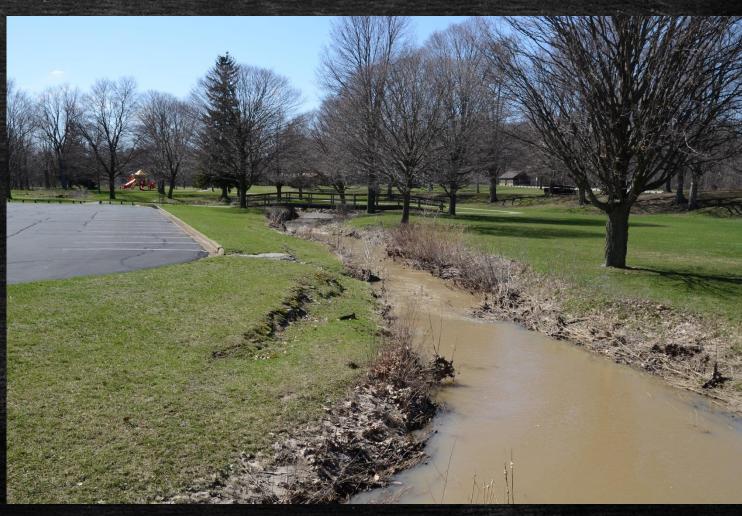


What's an ephemeral wetland? (hint: spring wildflowers are also called spring ephemerals...)



What is the difference between source and non-point source pollution?





How many lbs/year of sediment flows through Plaster Creek each year? (closest 3 teams to the actual number get credit!)



Bonus Points:

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Research, Education, Hands-on Restoration