Applicable High School Essential Content Standards and Expectations (HSCE)

Below is a list of content standards and expectations applicable to the program “Trip of a Drip.”

Grade Levels 9-12:

High School Essential Content Standards and Expectations (HSCE):

Earth Science
- Standard E3: The Solid Earth
  - E3.p1: Landforms and Soils (prerequisite)
    - E3.p1A Explain the origin of Michigan landforms. Describe and identify surface features using maps and satellite images. (prerequisite)
    - E3.p1B Explain how physical and chemical weathering leads to erosion and the formation of soils and sediments. (prerequisite)
- Standard E4: The Fluid Earth
  - E4.p1: Water Cycle (prerequisite)
    - E4.p1A Describe that the water cycle includes evaporation, transpiration, condensation, precipitation, infiltration, surface runoff, groundwater, and absorption. (prerequisite)
    - E4.p1B Analyze the flow of water between the elements of a watershed, including surface features (lakes, streams, rivers, wetlands) and groundwater. (prerequisite)
    - E4.p1C Describe the river and stream types, features, and process including cycles of flooding, erosion, and deposition as they occur naturally and as they are impacted by land use decisions. (prerequisite)
  - E4.p3 Glaciers (prerequisite)
    - E4.p3A Describe how glaciers have affected the Michigan landscape and how the resulting landforms impact our state economy. (prerequisite)
  - E4.1 Hydrogeology
    - E4.1C Explain how water quality in both groundwater and surface systems is impacted by land use decisions.

Biological Science
- Standard B1: Inquiry, Reflection, and Social Implication
  - B1.1: Scientific Inquiry
    - B1.1A Generate new questions that can be investigated in the laboratory or field.
  - B1.2: Scientific Reflection and Social Implication
    - B1.2g Identify scientific tradeoffs in design decisions and choose among alternative solutions.
    - B1.2k Analyze how science and society interact from a historical, political, economic, or social perspective.
- Standard B3: Interdependence of Living Systems and the Environment
  - L3.p4: Human Impact on Ecosystems (prerequisite)
    - L3.p4A Recognize that, and describe how, human beings are part of Earth’s ecosystems. Note that human activities can deliberately or inadvertently alter the equilibrium in ecosystems. (prerequisite)