



Regulatory & Legal Framework for Water

Water Quality Workgroup

Environmental Commission – City of Ann Arbor

Presented by Sara Nedrich – September, 26, 2024

Presentation Outline

1. Governmental agencies and regulations
2. Other authorities and delegated entities
3. Case studies
 - Nutrient pollution
 - Pesticide regulation
 - PFAS in the Huron

Layers of Government



Federal



State



County

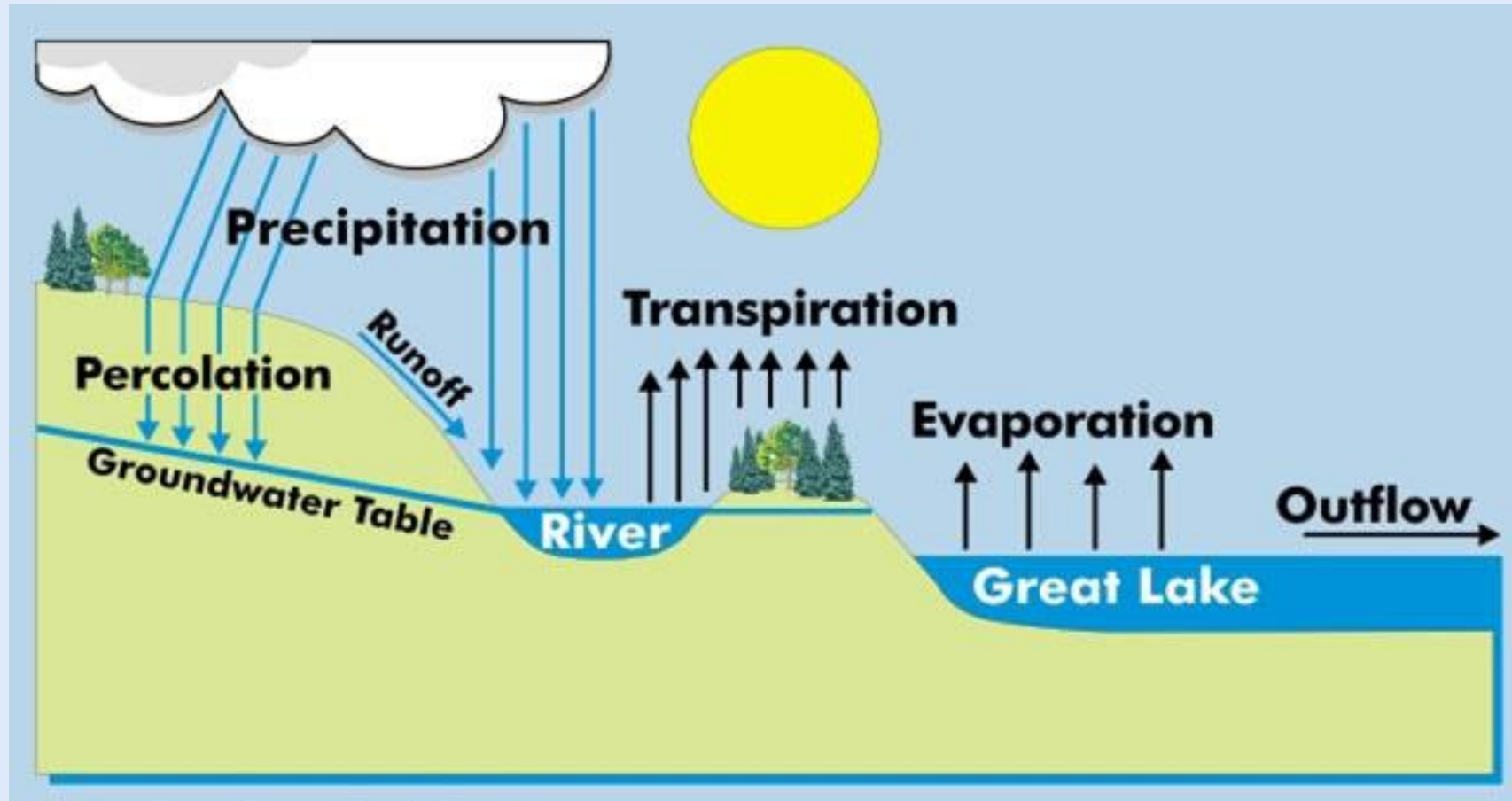


City

Learning objectives

1. Gain familiarity with the agencies with responsibility for water quality within the City of Ann Arbor
2. Multiple agencies on the state, federal, and local levels may be needed to achieve optimal environmental outcomes.
3. Participation by local activists and governments is essential to enhancing communication between agencies and to align their myriad priorities toward beneficial local outcomes.

Hydrologic Cycle



Hydrologic cycle is split between regulatory authorities

Limitations on agencies & regs

Not all regulations have “teeth” 

- Laws with sufficient “teeth” allow agencies to enforce their laws

Not all agencies are sufficiently funded and staffed

- Understaffing and underfunding prevents staff from having the ability to enforce the laws and act proactively

Agencies & Regs Overview

Aka – Alphabet Soup



Federal Agencies



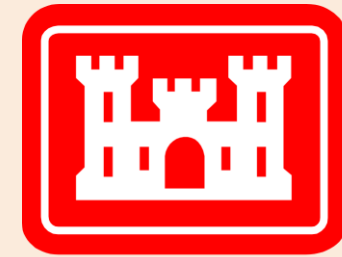
US Environmental Protection Agency
Clean Water Act

- Office of Water
 - Drinking water & infrastructure
 - Surface water – monitoring & impairment listings
- Office of Land and Emergency Management - Groundwater remediation
 - Superfund, Areas of Concern, CERCLA, RCRA
- Office of Pesticide Programs - pesticide labelling & approvals



US Department of Agriculture/
Natural Resources Conservation
Service

- 7 CFR: Water Bank Act, Farms of the Future Act 1990
- Conservation Restoration Program
 - Wetland Protection Program
 - Agriculture soil and water conservation programs



**US Army Corps
of Engineers®**

Army Corps of Engineers
Rivers and Harbors Act

- Dredge permitting
- Floodplain work and stabilization

Federal Agencies Continued



US Fish and Wildlife Service

- Migratory Bird Act
Endangered Species Act
- T&E species protection
 - Species listings
 - Avian protections
 - Natural resources damages assessment



National Oceanic and Atmospheric Administration

- Great Lakes monitoring
- Hydrological monitoring
- GLERL - research
- Office of Response and Restoration



US Geological Survey

- The Organic Act of 1879
- Riparian surveying
 - Hydrological monitoring stations
 - Research



US Coast Guard

- Oil spill response

State Agencies



Environment, Great Lakes, and Energy (formerly DEQ)
Natural Resources Environmental Protection Act (NREPA)

Water Resources Authorities

- Surface water monitoring
- Point source discharge (NPDES)
- Non-point source funding/evaluation
- Permitting

Drinking Water

- Safe Drinking Water Act; Pb and Cu Rule
- Inspections of DW facilities
 - Set maximum contaminant levels (MCL's)
 - Permitting

Remediation & Redevelopment

- Part 201 and 213
Superfund, Brownfield
- Groundwater contaminants
 - Hazardous materials spills response
 - Clean-ups

Materials Management

- Part 111 and 115
- Beneficial reuse
 - Stockpiling
 - Hazardous waste disposal
 - Landfills permitting and oversight

State Agencies



Department of Health and Human Services

Public Health Code, Section 400.277

- Fish advisories
- Water Assistance Program



Department of Natural Resources

- Fish and game licenses
- Stream & wetland restoration
- Management of parks
- State listed species
- Aquatic monitoring



Department of Agriculture and Rural Development

- Pesticides applicator training
- Ability to monitor pesticide use
- Special use authorizations
- Guidance for Ag. Ventures (marijuana)

County Agencies



- Health Department
 - Groundwater use permits (mostly outside city limits)
 - Private well sampling
- Water Commissioner
 - MS4 – stormwater runoff permit holder
 - Natural Area Preservation (NAP)
 - Permits - for soil erosion and drain use
 - Stormwater grant
 - Rain garden program

City Compliance Programs: A Few Examples



The City maintains complex compliance programs related to a broad range of water resources protection at the federal and state level

Water Treatment Plant

- Water quality standards, operation, monitoring and reporting, source water assessment & more (SDWA)
- Laboratory certification
- Sludge pond management (NPDES)

Water Resource Recovery Facility

- Effluent water quality, operation, monitoring and reporting, & more (NPDES)
- Residuals Management (e.g. biosolids) (NPDES)

Systems Planning

- Stormwater management via education, TMDL implementation, best management practices, & more (MS4)
- Floodplain management (FEMA Flood Insurance Program)

Public Works

- Distribution and conveyance (NPDES and SDWA)
- Asset management
- Landfill management (Part 115)



City Government Continued

- The City serves as the regulatory authority for local permits, regulations, and/or City codes that help support larger compliance programs.
 - WRRF Industrial Pre-treatment Program
 - Stormwater Erosion and Sediment Control Permits
 - Site plan reviews to ensure compliance with floodplain and stormwater code
- The City also maintains voluntary water resources protection programs to achieve City priorities
 - Stormwater infiltration guideline for public street construction/reconstruction



Other water authorities & advocates

- Universities (UM and others)
 - Environmental Health and Safety (EH&S)
 - Research/Advocacy - CIGLR, MI Sea Grant, Institute of Water Research
- Environmental non-governmental and non-profit orgs (NGO/NPOs)
 - Local: Huron River Watershed Council (HRWC), SE Michigan Council of Governments (SEMCOG), etc...
 - Regional/National: Alliance for the Great Lakes, The Nature Conservancy, Trout Unlimited, etc...

Case Studies

City of Ann Arbor – Water Issues



PFAS in the Huron

- MCLs passed by Drinking Water, PFAS detections in Ann Arbor Water
- Rule 57 values developed, PFAS first detected in surface water by EGLE Water Resources
- Source identification by MPART (multi-agency), found Tribar upgradient
- Compliance action against Tribar
- Fish sampling conducted by Water Resources
- MDHHS set fish advisory
- Future Action?? Enforcement for damages with USFWS through natural resources damage assessment?



Drinking Water

Water Resources

MPART

RRD/MMD

Water Resources



Nutrient pollution in Ford & Belleville Lake



- Harmful algal blooms (HABs) in Ford & Belleville Lakes
- 1994: Lakes 303(d) impairment listing for phosphorus (P)
- 2004: EGLE sets P limit (TMDL) to the lakes (0.05 mg P/L)
- Middle Huron Partners group created (MS4 and TMDL P group) and develop TMDL implementation plans
- 2007: City of Ann Arbor Phosphorus Ordinance & Lawn Fertilizers
- 2012: Michigan Fertilizer Law
- 2019: EGLE updates TMDL (0.03 mg P/L)
- 2023: Current implementation plan: [LINK](#)
- Present - continued P reduction efforts & monitoring



Pesticide Regulation (neonics)



- EPA - 1994 initial registration and labelling
- 2006 - first publication on colony collapse disorder (pollinator impacts)
- USGS/WRD - surface water monitoring for neonics, set water limits
- EPA “15 year review” complete in 2020
- MDARD - limited authority, can request records on applications with a 2-year time window
- USDA/NRCS - conservation practices, integrated pest management
- Washtenaw County Conservation District provides conservation education
- Current - impairment listings?? Monitoring?



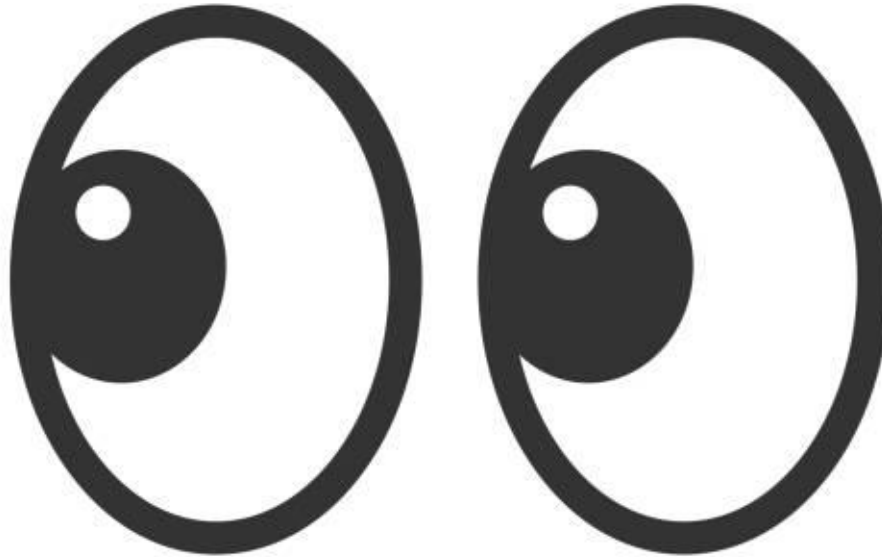
Learning objectives

1. Gain familiarity with the agencies with responsibility for water quality within the City of Ann Arbor
2. Multiple agencies on the state, federal, and local levels may be needed to achieve optimal environmental outcomes.
3. Participation by local activists and governments is essential to enhancing communication between agencies and to align their myriad priorities toward beneficial local outcomes.

Who to Contact...& Their Contacts

...ran out of time...

...future deliverable of the WQ workgroup...



A scenic landscape photograph of a lake at sunset. The sky is filled with dramatic, colorful clouds in shades of orange, yellow, and grey. The sun is low on the horizon, casting a warm glow over the water. In the foreground, a gravel path leads towards the water, flanked by green grass. A wooden bench is visible on the path. In the distance, a dense line of trees borders the lake. The overall mood is peaceful and serene.

Thank You!

Questions & discussion if time...

Supplemental Slides

Michigan's Water Resources Policies (FYI)

- ***Great Lakes Regional Agreements Controlling Water Resources:***
- Great Lakes Water Quality Agreement
 - Agreement b/n US and Canada to improve water quality
- Great Lakes Resource Compact Agreement
 - 8 Great Lakes States signed on
 - Bans any new diversions of water from the GL basin

- ***Policy Making Groups (or stakeholders)***
- Conference of Great Lakes Governors and Premiers
- International Joint Commission
- Great Lakes Commission
- Great Lakes Fishery Commission
- Several Others

If other neighboring states were in need, would you share GL freshwater resources by allowing a new diversion?

