MINNESOTA POLLUTION CONTROL AGENCY

MPCA overview

Peter Tester | Deputy Commissioner

Greta Gauthier | Assistant Commissioner

Verlynn Schmalle | Chief Financial Officer

January 21, 2021

Our mission

Protect and improve the environment and human health.

MINNESOTA POLLUTION CONTROL AGENCY

Core products and services

- Monitor air, land, and water for contaminants
- Issue permits and enforce regulations
- Educate to prevent pollution
- Find and clean up contamination
- Respond to emergencies and spills
- Set environmental rules and policies

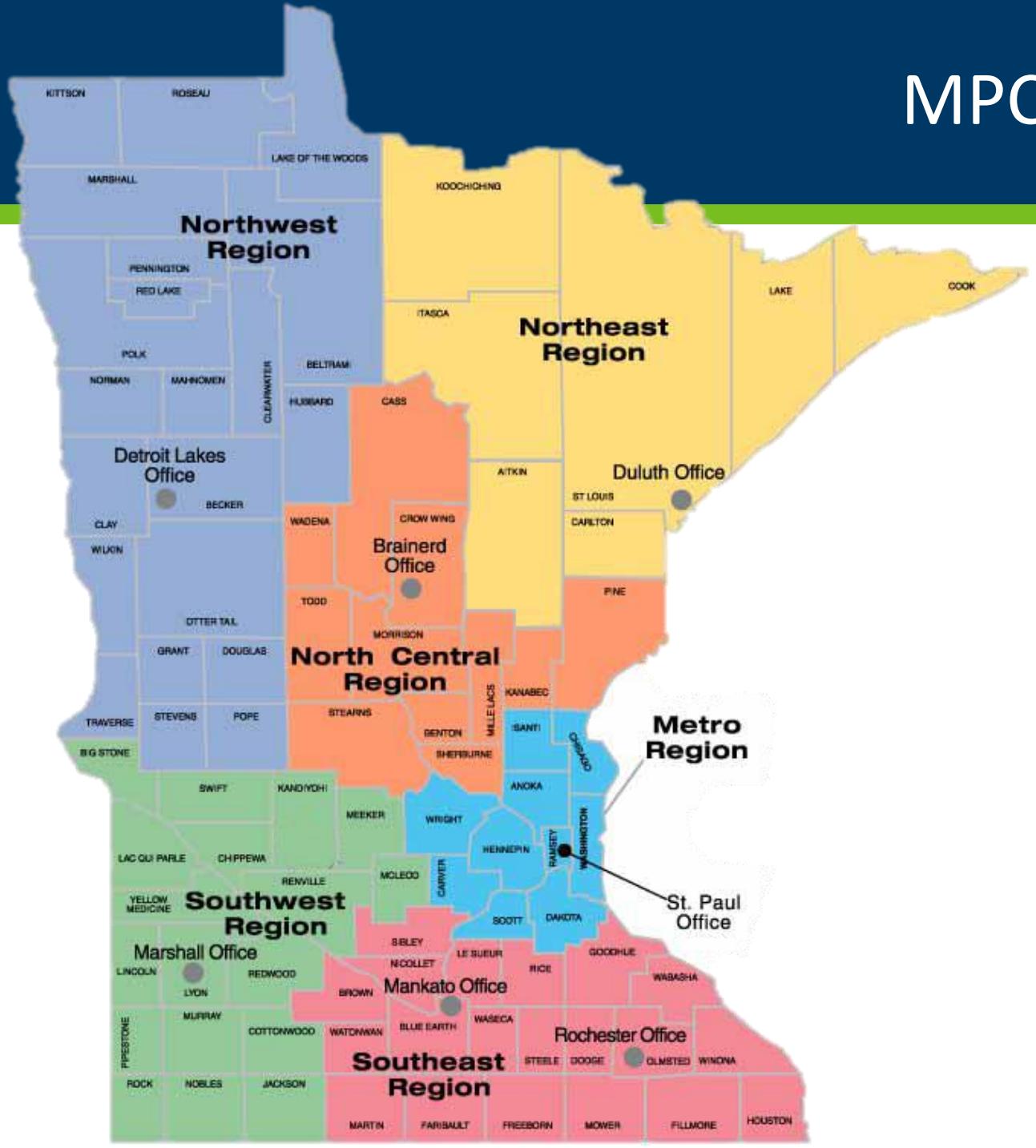
Statutory authority

State Laws	**229 state laws** (not including appropriations) apply to the MPCA and direct program operations.
Federal delegations (EPA)	▪ Air programs: Outdoor air monitoring, permitting, air toxics, compliance & enforcement, regional haze, rules, etc. ▪ Water programs: Monitoring, permitting, Total Maximum Daily Loads, Compliance & enforcement, stormwater, feedlot, septics, etc. ▪ Land programs: Solid waste, hazardous waste monitoring & enforcement, Resource Conservation and Recovery Act (RCRA), etc.

Our partners

- Minnesota residents
- All levels of government (federal, state, county, municipal)
- Tribal Nations
- Citizen water monitors
- Non-governmental organizations
- Business large and small

MPCA Organizational Structure



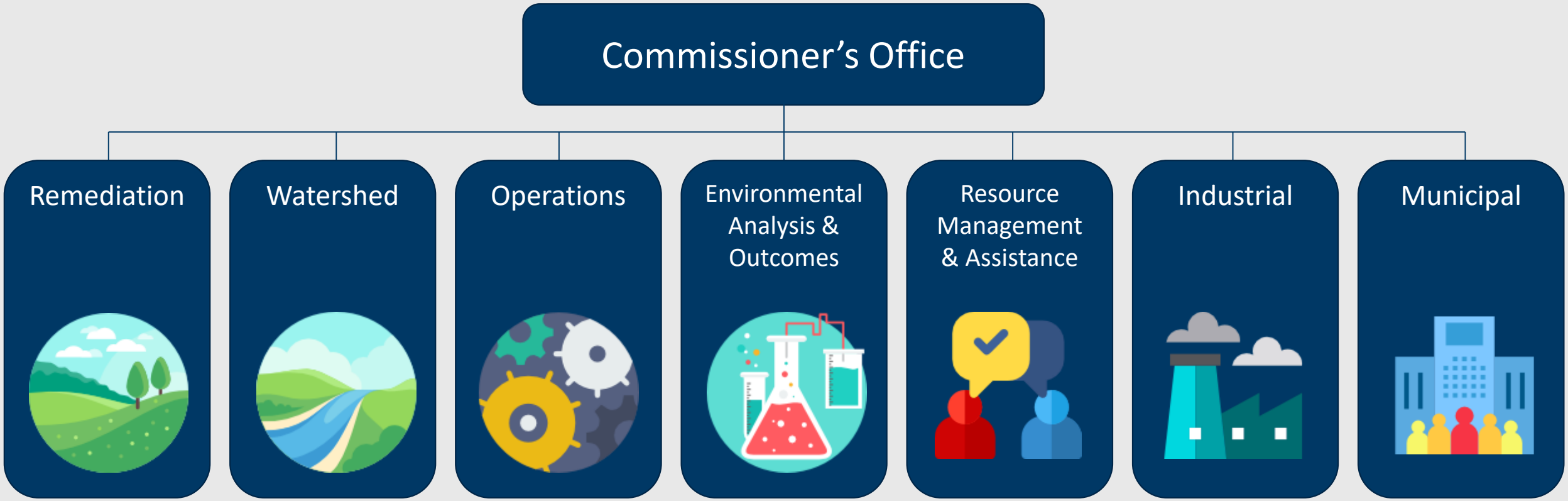
Six Regional Offices:

- Duluth
- Detroit Lakes
- Brainerd
- Marshall
- Mankato
- Rochester

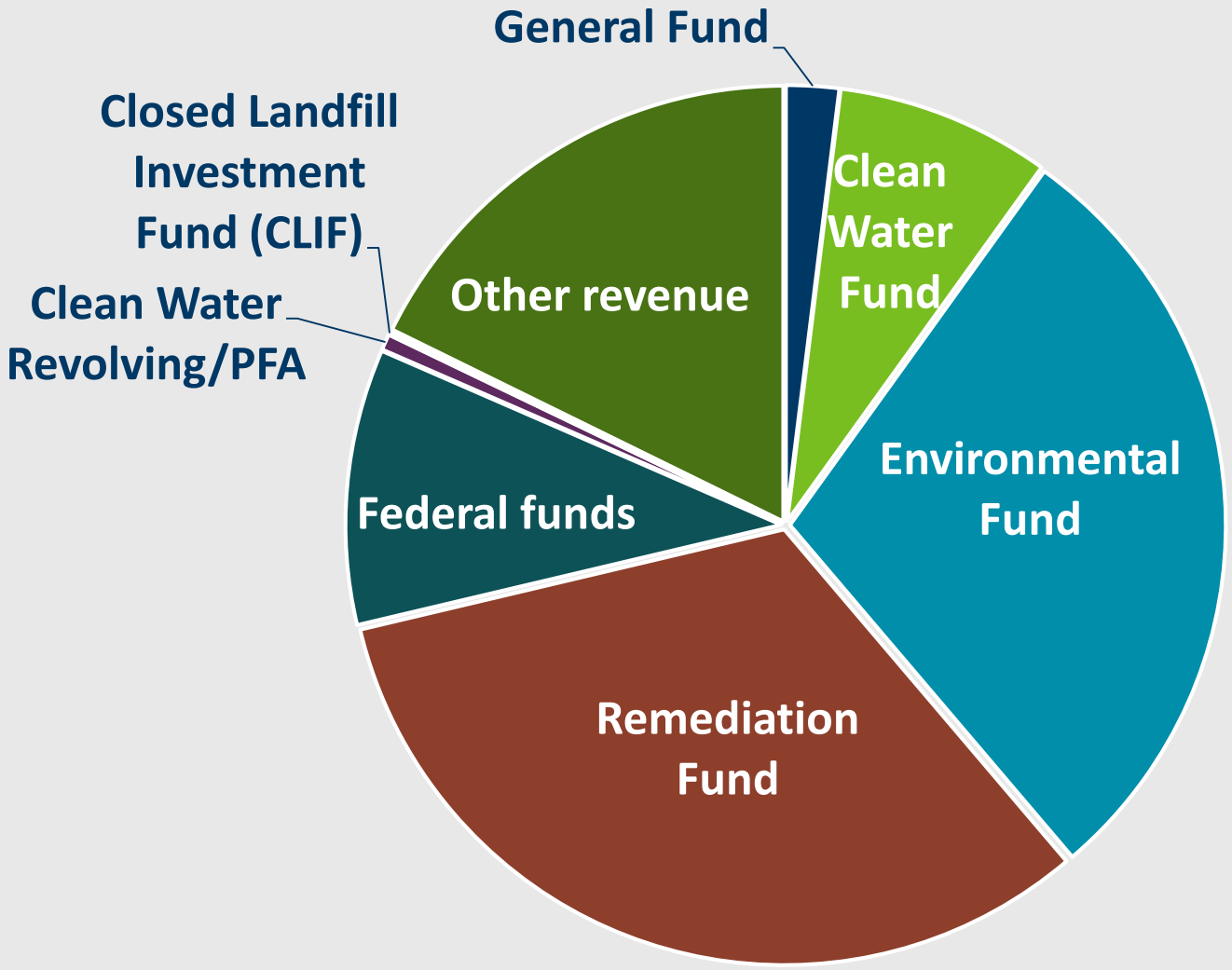
Mostly Scientists

- Established in 1967
- Medium-sized agency (approx. 864 FTE)
- Low turnover rate (2.5%)
- 48% women
- 70% of staff are scientists
  - Engineers
  - Hydrologists
  - Soil Scientists
  - Chemists
  - Biologists
  - Environmental Specialists

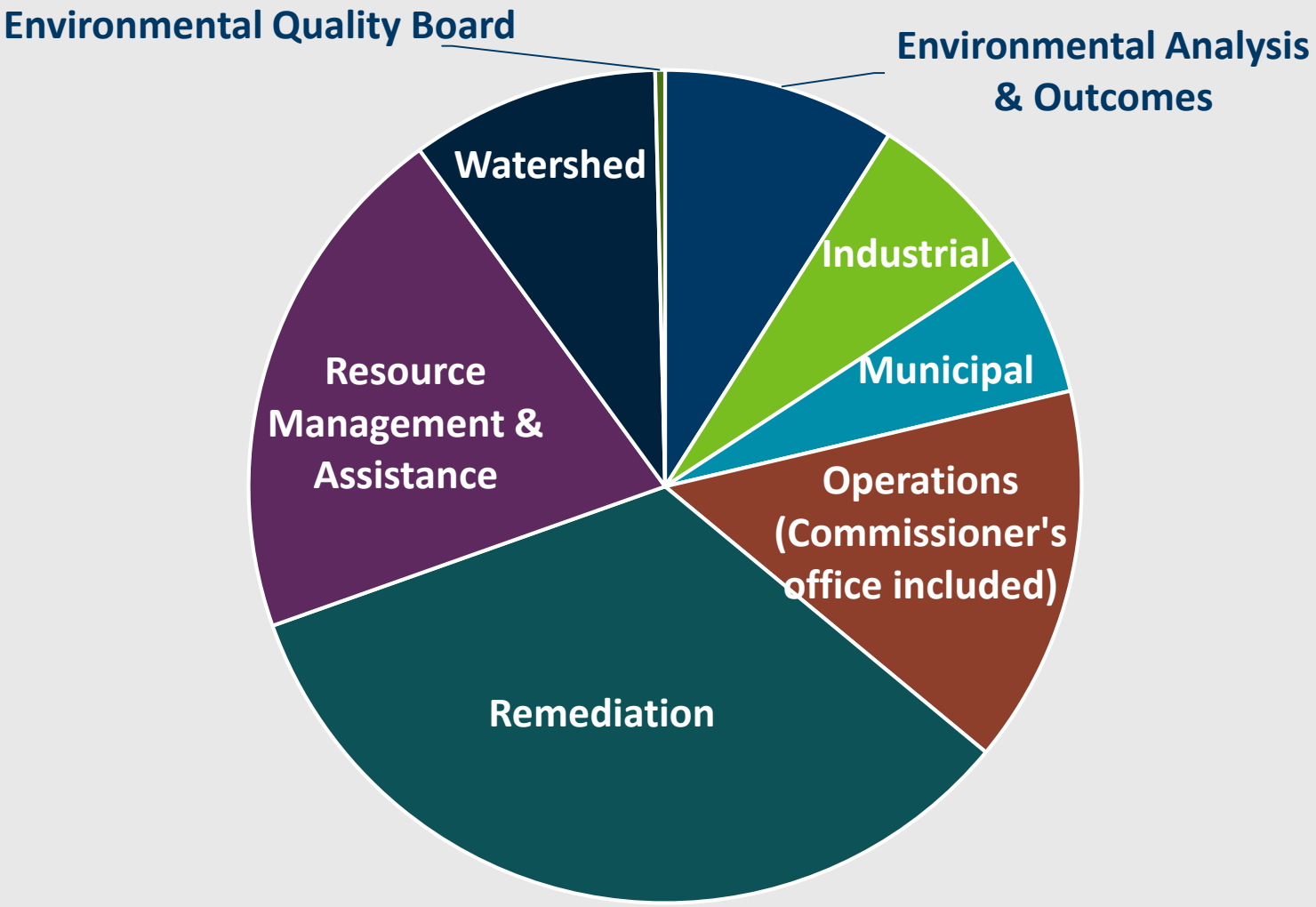
MPCA Organizational Structure



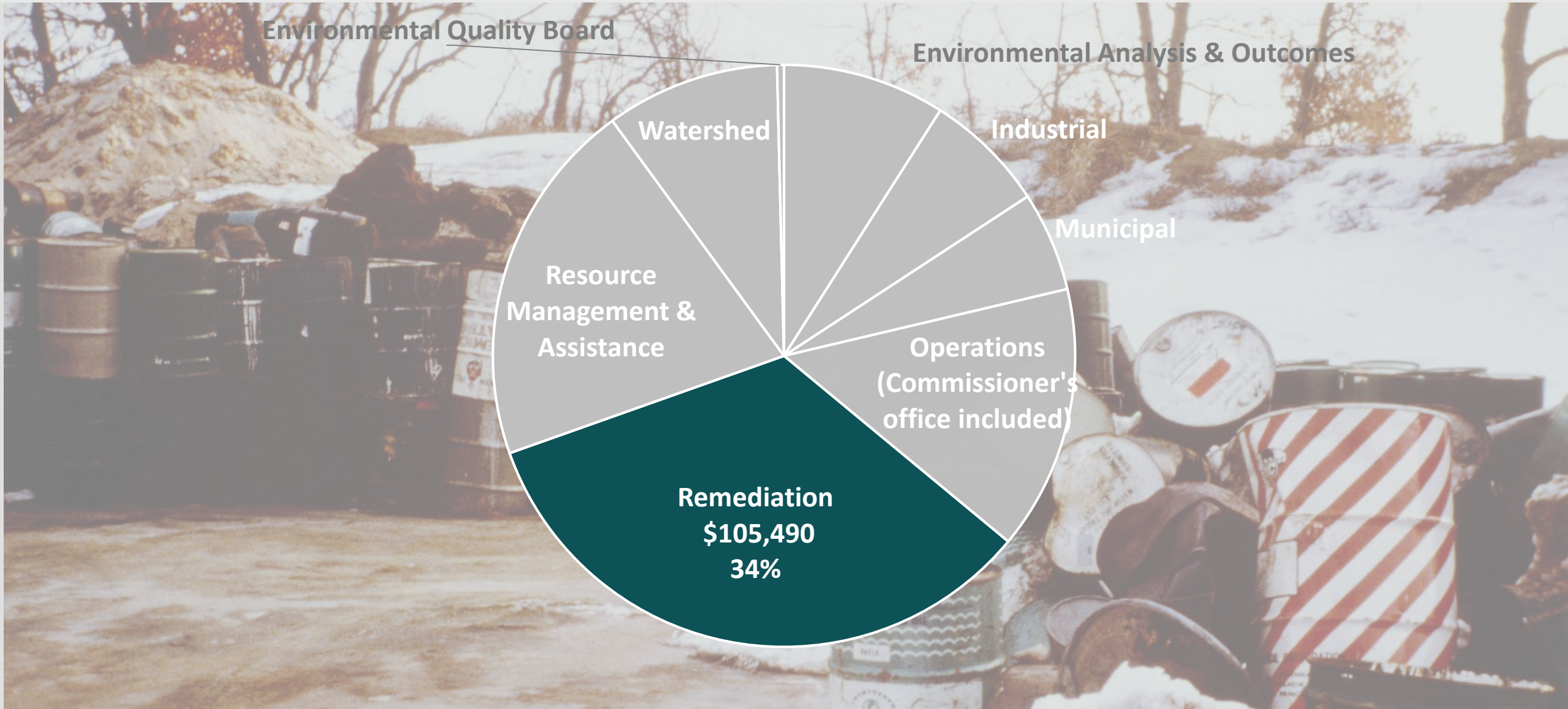
Where the money comes from



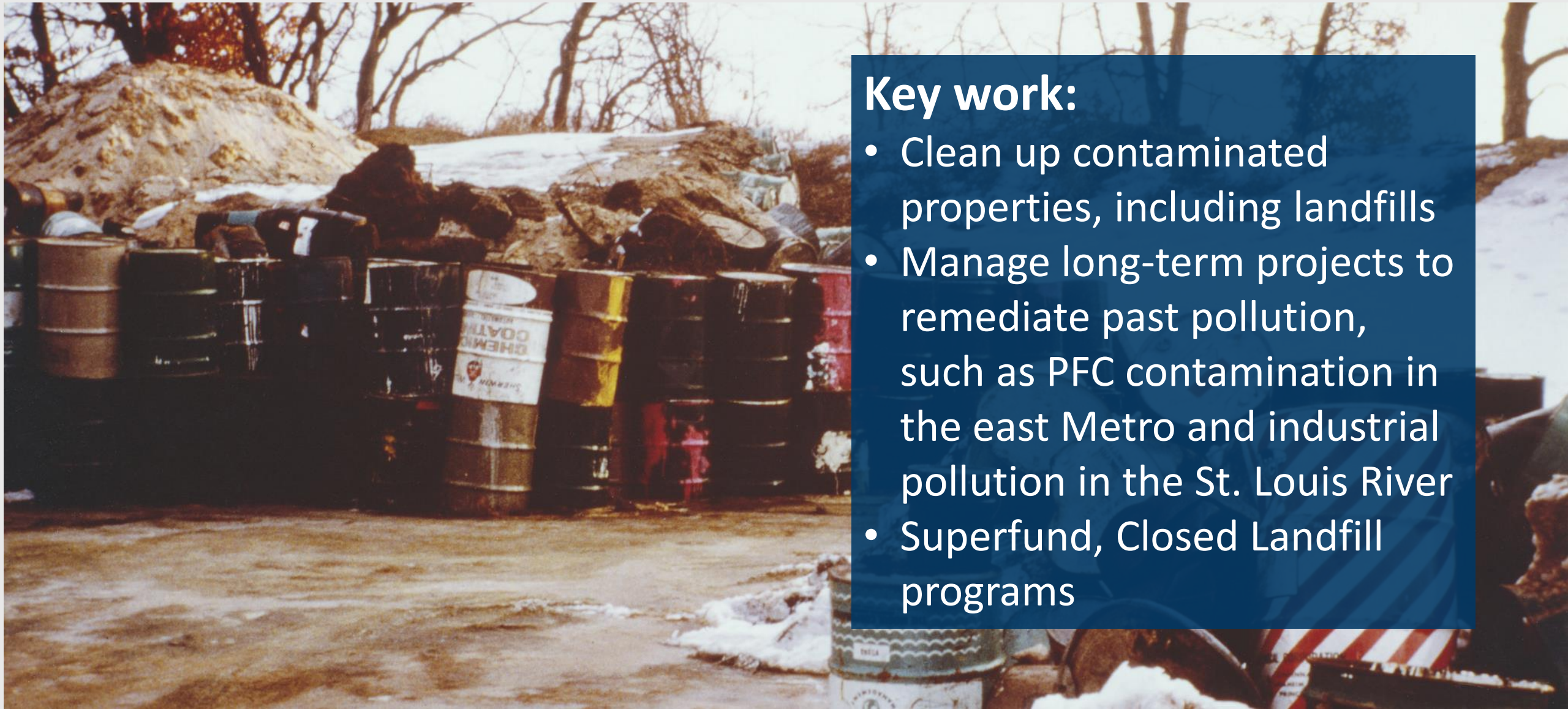
Where the money goes



Remediation Division FY21



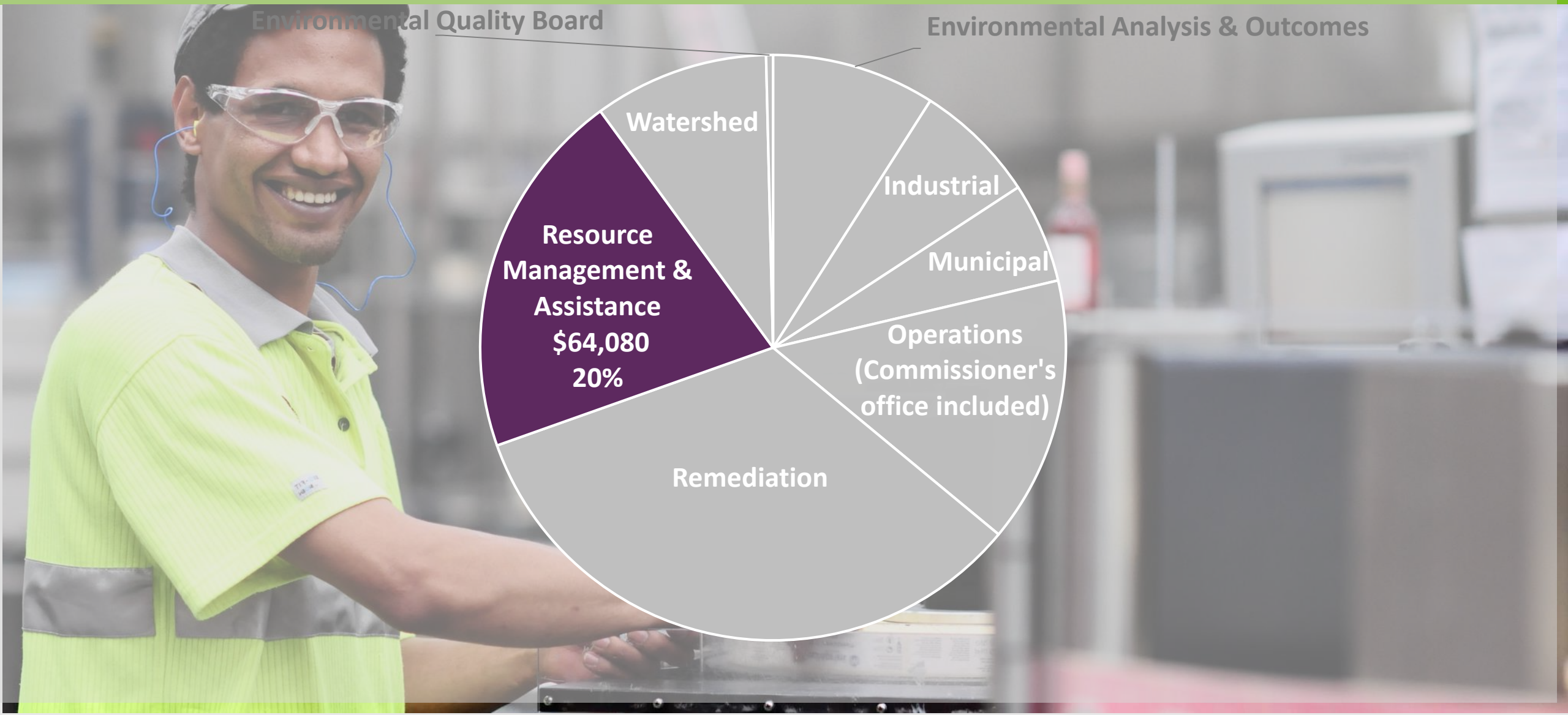
Remediation Division



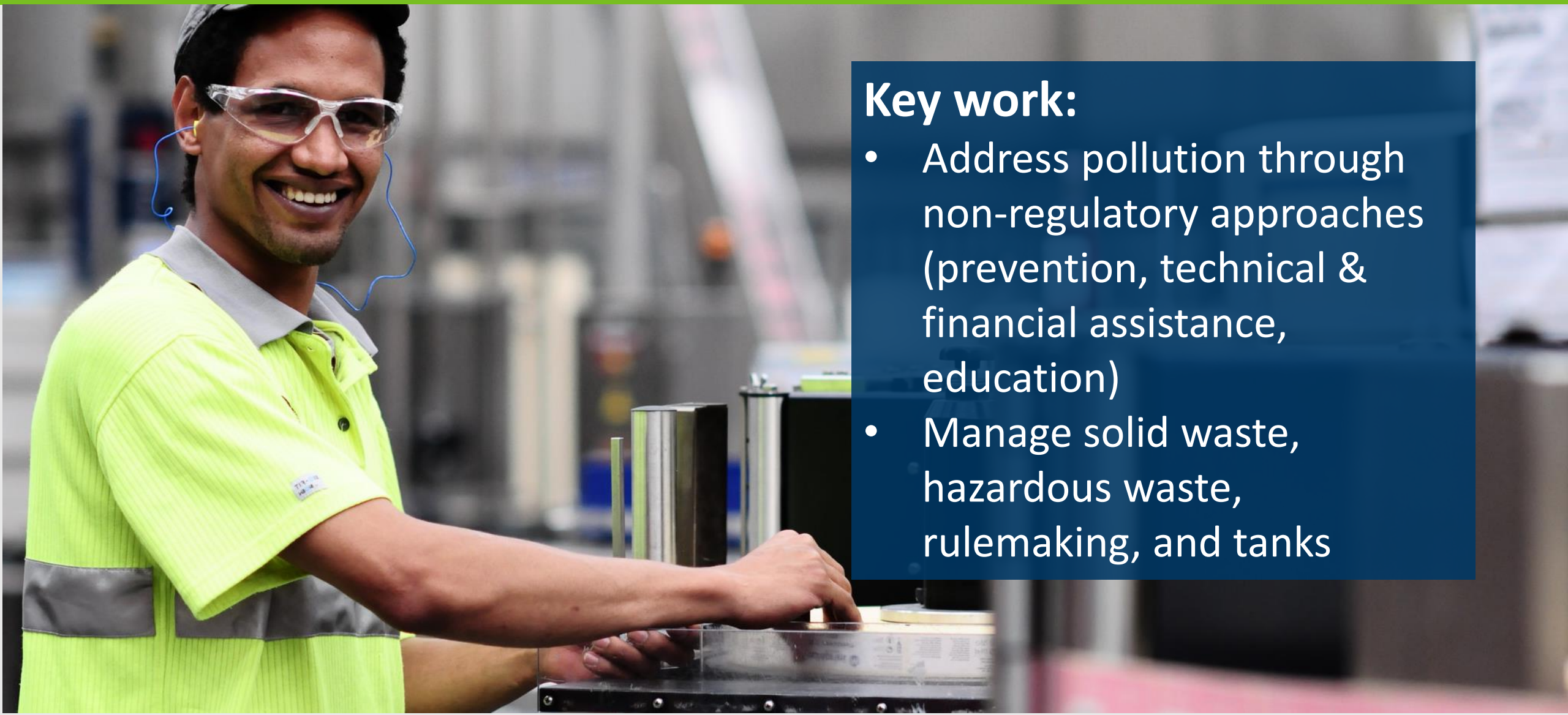
Key work:

- Clean up contaminated properties, including landfills
- Manage long-term projects to remediate past pollution, such as PFC contamination in the east Metro and industrial pollution in the St. Louis River
- Superfund, Closed Landfill programs

Resource Management & Assistance Division FY21



Resource Management & Assistance Division



Key work:

- Address pollution through non-regulatory approaches (prevention, technical & financial assistance, education)
- Manage solid waste, hazardous waste, rulemaking, and tanks

Watershed Division FY21

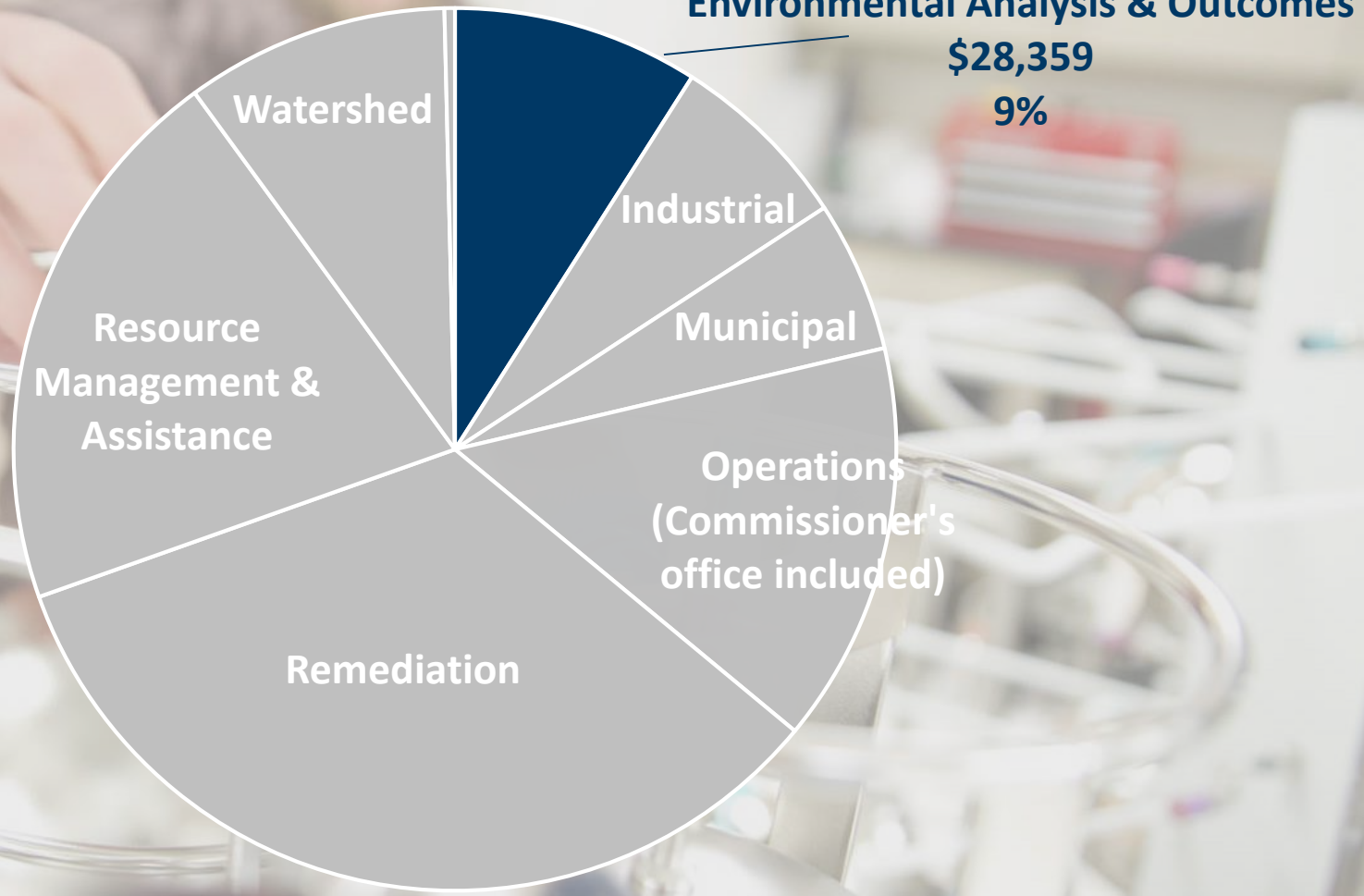
Watershed Division

Key work:

- Investigate causes, sources, and potential solutions for water pollution problems
- Issue permits for animal feedlots
- Manage several grant programs that benefit local partners

Environmental Analysis and Outcomes Division

Environmental Quality Board

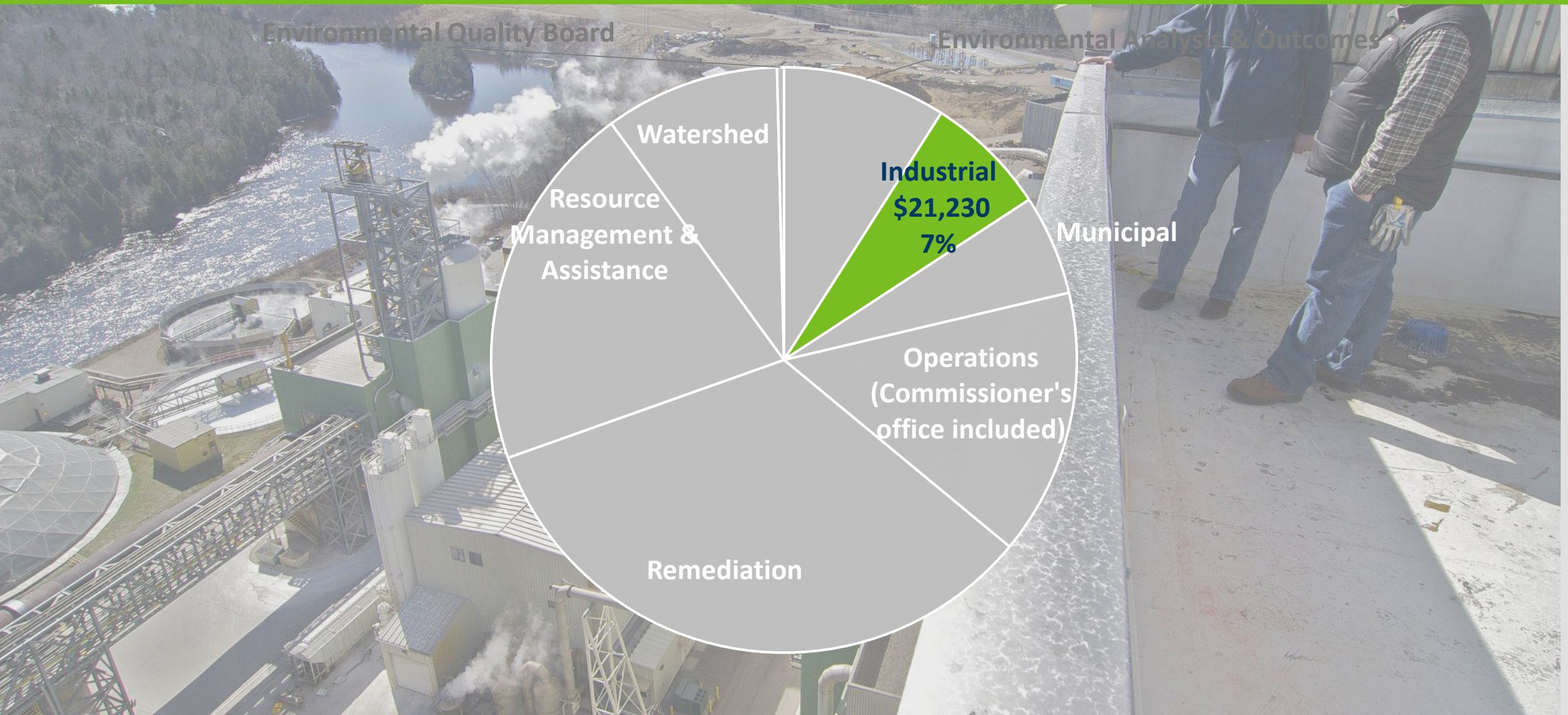


Environmental Analysis and Outcomes Division

Key work:

- Monitor and evaluate environmental conditions
- Develop environmental standards
- Make environmental data broadly accessible to stakeholders & the public

Industrial Division FY21

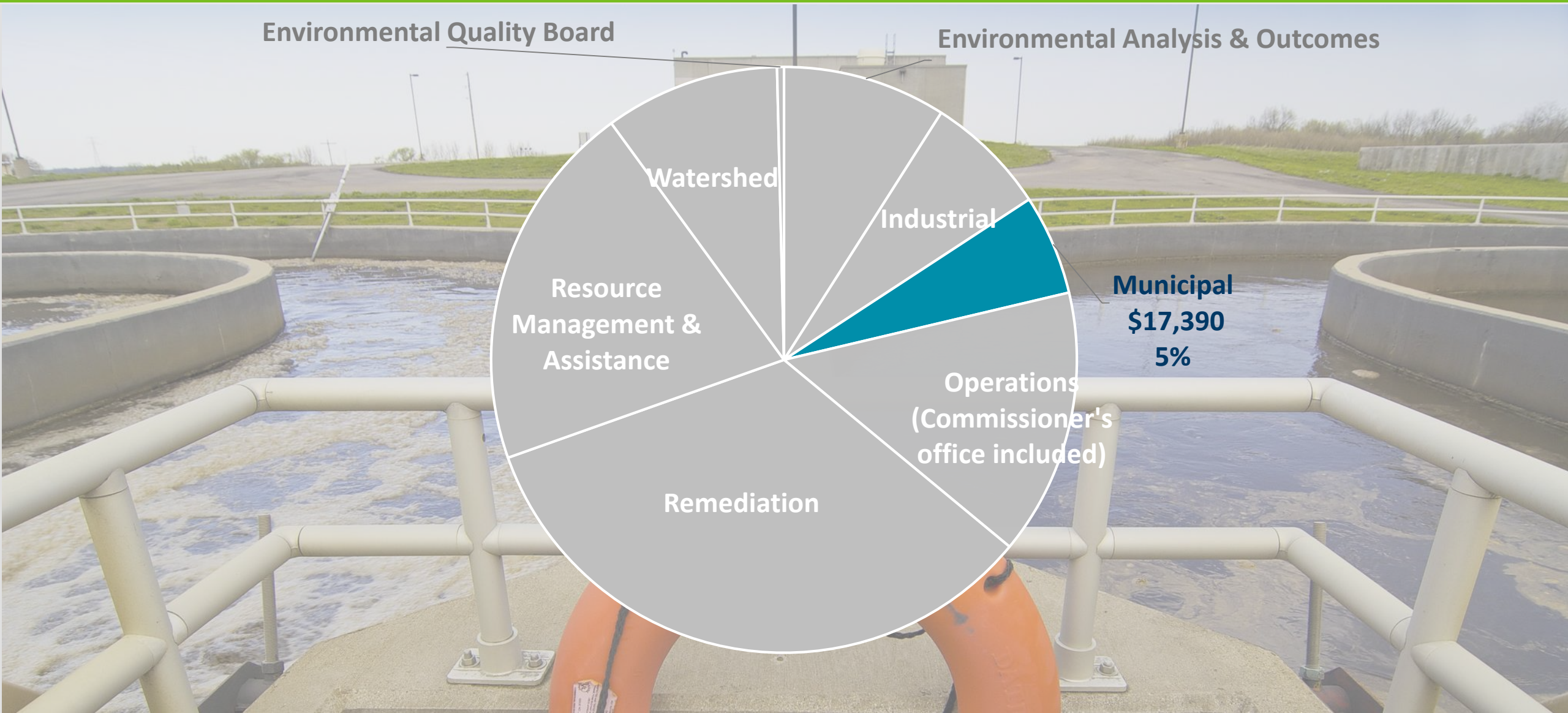


Industrial Division

Key work:

- Work with larger private industrial facilities on permitting, compliance, and enforcement
- This work encompasses regulations on air quality, water quality, hazardous waste, and underground storage tanks.

Municipal Division



Municipal Division

Key work:

- Work with cities and towns to ensure proper management of wastewater, stormwater, and septic systems
- This work includes technical assistance, permitting, compliance & enforcement, and development of policy

Operations Division FY21

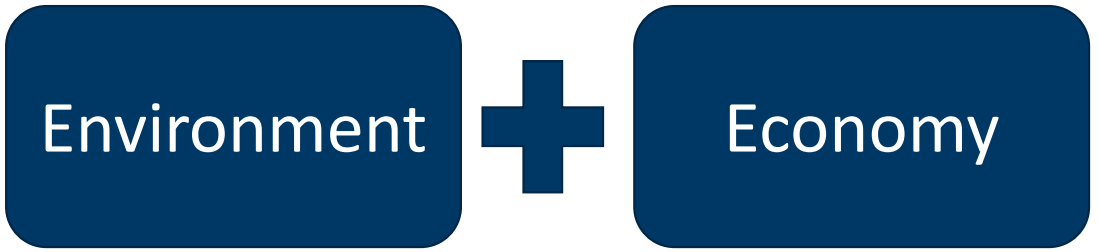
Operations Division

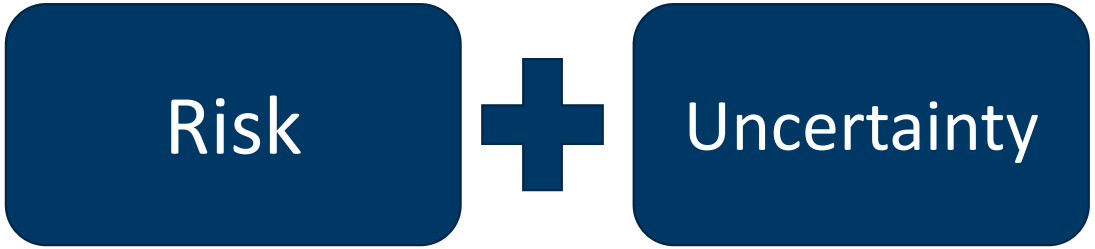
Key work:

Provide services that benefit all agency programs:

- Fiscal & contracting
- Human resources
- Legal services
- Communication
- Data management
- Emergency management
- Facilities & fleet

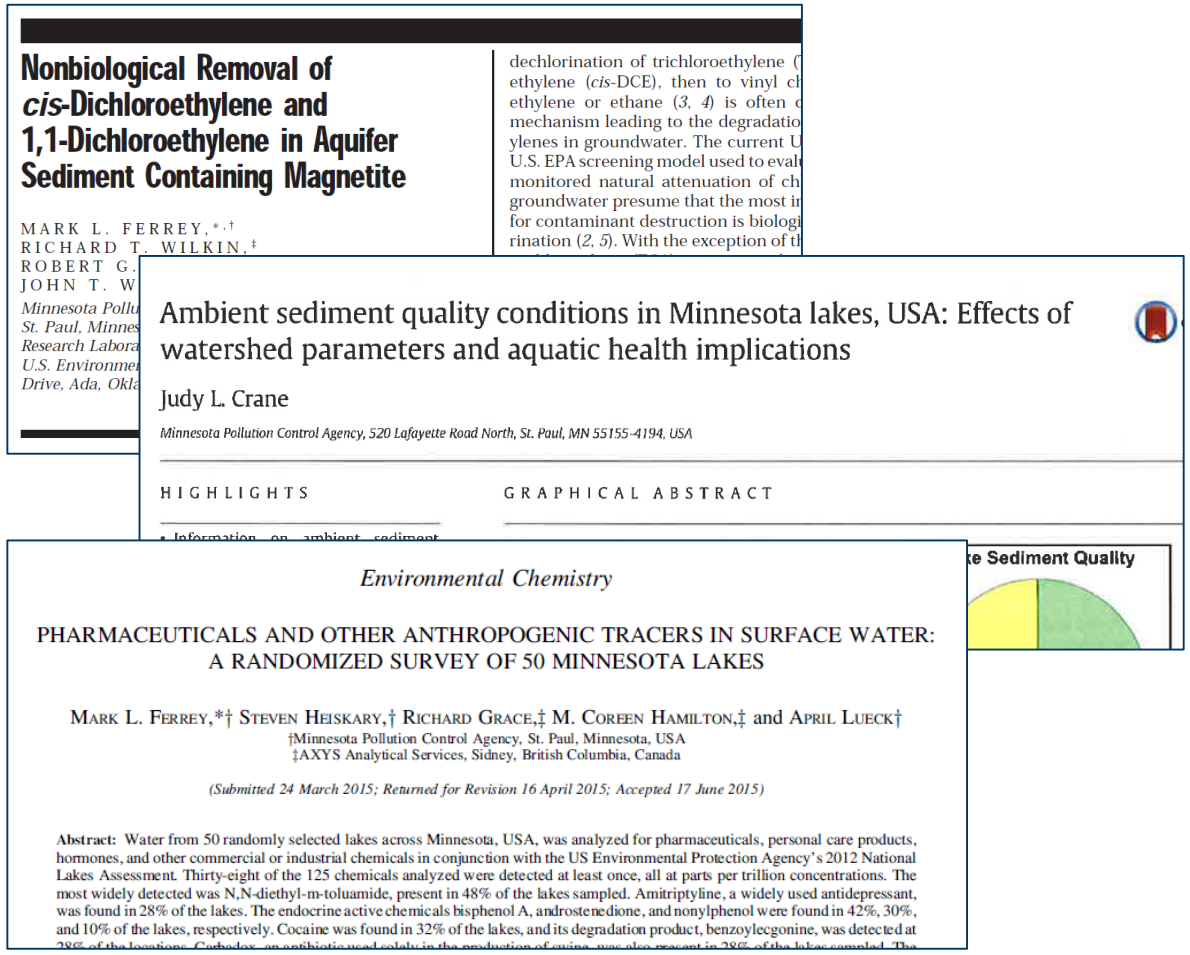
Trade-offs and Tandems





21st Century Tradeoffs

- Environmental and Human Health Science is constantly evolving
- Detection technology has accelerated much faster than cleanup technology
- What we can measure versus what we can manage



Nonbiological Removal of *cis*-Dichloroethylene and 1,1-Dichloroethylene in Aquifer Sediment Containing Magnetite

MARK L. FERREY,*,† RICHARD T. WILKIN,‡ ROBERT G. … JOHN T. W…

Minnesota Pollu… St. Paul, Minnes… Research Labora… U.S. Environmen… Drive, Ada, Okl…

dechlorination of trichloroethylene (… ethylene (*cis*-DCE), then to vinyl ch… ethylene or ethane (*3*, *4*) is often … mechanism leading to the degradatio… ylenes in groundwater. The current U… U.S. EPA screening model used to eval… monitored natural attenuation of ch… groundwater presume that the most i… for contaminant destruction is biologi… rination (*2*, *5*). With the exception of t…

Ambient sediment quality conditions in Minnesota lakes, USA: Effects of watershed parameters and aquatic health implications

Judy L. Crane

Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, MN 55155-4194, USA

HIGHLIGHTS

GRAPHICAL ABSTRACT

…ambient sediment…

…e Sediment Quality

Environmental Chemistry

PHARMACEUTICALS AND OTHER ANTHROPOGENIC TRACERS IN SURFACE WATER: A RANDOMIZED SURVEY OF 50 MINNESOTA LAKES

Mark L. Ferrey,*† Steven Heiskary,† Richard Grace,‡ M. Coreen Hamilton,‡ and April Lueck†

†Minnesota Pollution Control Agency, St. Paul, Minnesota, USA
‡AXYS Analytical Services, Sidney, British Columbia, Canada

(Submitted 24 March 2015; Returned for Revision 16 April 2015; Accepted 17 June 2015)

Abstract: Water from 50 randomly selected lakes across Minnesota, USA, was analyzed for pharmaceuticals, personal care products, hormones, and other commercial or industrial chemicals in conjunction with the US Environmental Protection Agency's 2012 National Lakes Assessment. Thirty-eight of the 125 chemicals analyzed were detected at least once, all at parts per trillion concentrations. The most widely detected was N,N-diethyl-m-toluamide, present in 48% of the lakes sampled. Amitriptyline, a widely used antidepressant, was found in 28% of the lakes. The endocrine active chemicals bisphenol A, androstenedione, and nonylphenol were found in 42%, 30%, and 10% of the lakes, respectively. Cocaine was found in 32% of the lakes, and its degradation product, benzoylecgonine, was detected at …

Thank you!

Peter Tester

Peter.Tester@state.mn.us

MINNESOTA POLLUTION CONTROL AGENCY