



Major OST Program Areas

- **Technology-based Standards**
- **Human Health and Ecological Criteria Development**
 - Emerging Contaminants
 - Recreational Criteria
 - Pesticides
- **Water Quality Standards, Fish & Beach Programs**
 - State standards review
 - Beach monitoring and Notification
 - Fish Advisory and Fish Tissue Analyses

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Technology-based Standard Priorities

- **Industrial Effluent Guidelines**
 - Construction and Development – 2008
 - Airport Deicing – 2008/2009
 - Cooling Water Intake for large power plants – 2008/2009
 - Industry Studies
 - Health Services, Steam Electric, Coal Bed Methane
- **Secondary Treatment**
 - NRDC Nutrients Petition
- **Analytical Measurement Methods**
 - Pharmaceuticals

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Technology Standards-related Science

- **Treatment Effectiveness Studies**
 - PPCP removals and loading reductions at POTWs
 - Nutrient (nitrogen & phosphorous) removals at POTWs
 - C&D - TSS BMPs, filtration, and loadings reduction
 - Cooling Water Intakes - Fish impingement and entrainment
- **Occurrence**
 - POTW effluent study
 - Updated metals/toxics effluent loadings
 - Targeted National Sludge Survey
- **Methods Development**
 - Method 1694 - 74 PPCPs
 - Method 1698 - 27 Steroids and Hormones
 - Method 1699 - 60 Pesticides

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Health and Ecological Criteria Priorities

- **Human Health**
 - Pharmaceutical and Personal Care Products (PPCPs)
 - Revised recreational water quality criteria by 2012
 - Six Year Review and Contaminant Candidate Listings
- **Aquatic Criteria**
 - Pharmaceutical and Personal Care Products (PPCPs)
 - Nutrients
 - Selenium and Atrazine criteria under development
 - Ammonia - reviewing data and key studies
 - CWA/FIFRA – exploring a common effects assessment approach

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Human Health and Ecological-related Science

- **Human Health**
 - PPCP exposure pathways and health effects
 - Development of risk screening and assessment tools
 - Recreational Criteria Critical Path Science Plan
 - Ongoing drinking water contaminant health effects review
- **Aquatic Criteria**
 - Selenium over-wintering study
 - Revised criteria derivation methodology for PPCPs
 - Scoping paper to support alternative options for common CWA/FIFRA effects assessment
 - Mesocosm studies to support atrazine criteria

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Water Quality Standards Program Priorities

- 🔍 **Timely EPA decisions on State standards packages** - Partnering with States to keep the backlog down
- 🔍 **ESA consultation** – working toward a more effective consultation process
- 🔍 **Numeric nutrient standards** – supporting States and Regions to get numeric nutrient standards in place
- 🔍 **Recreational criteria** - implementation & follow through on NRDC consent decree and settlement agreement
- 🔍 **Continued emphasis on a flexible and responsive program** – addressing wet weather issues, broader use of UAAs, and timely guidance for new or revised criteria

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Water Quality Standards Program Science

Critical Path Science Plan Research Categories

- 🔍 Epidemiological & Quantitative microbial risk assessment (QMRA) studies
- 🔍 Indicators of fecal contamination & related genetic and culture based methods
- 🔍 Predictive modeling
- 🔍 Site characterization studies
- 🔍 Research to support extrapolation to inland waters

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Beach and Fish Program Priorities

Beach Monitoring and Notification

- 🔍 Reauthorized Beach Act pending before Congress
- 🔍 Continued emphasis on sanitary surveys and source control actions to reduce need for Beach Advisories

Fish Advisories and Fish Tissue Analysis

- 🔍 EPA Report on Old Mercury Advisories -- late 2008/early 2009.
- 🔍 Journal Publication of Lake Fish Tissue Study -- late 2008.
- 🔍 Journal Publication of Pilot study of pharmaceuticals in fish at five sites - 2009
- 🔍 Ongoing collection of fish tissue at an additional 154 urban sites nationally in 2008 to analyze for 40+ pharmaceuticals as follow-up to pilot study

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Sound Science Drives Sound Policy

Science is helping us better protect human health

- 🔍 From epidemiology studies at beaches to investigations of the occurrence of PPCPs in fish tissue, EPA is investing in science to improve public health protection

Science is helping us better protect aquatic life

- 🔍 From scientific studies to better understand the effects of Selenium exposure on over-wintering fish to investigations of endocrine disrupting compounds and nutrients in water, EPA is investing in science to better protect aquatic life

Science is providing us with the tools for making real-time risk management decisions

- 🔍 From studies to better understand the effectiveness of POTW treatment for removal of nutrients and PPCPs to development and validation of new analytical methods, EPA is investing in science to help make risk management decisions

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Sound Science Depends on Strong Partnerships

- Many priority issues for the national water program are being informed by ongoing, specific, and cutting-edge research.
- And.....OST believes that EPA has not cornered the market on sound science
- Our mission is to work collaboratively to share and learn in the important work of developing and applying sound science to support sound environmental decisions.

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For More Information

General

epa.gov/waterscience

Recreational Criteria

epa.gov/waterscience/criteria/recreation

Climate Change

epa.gov/water/climate change

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