Overview of Settlement and Natural Resource Damage Assessment (NRDA)

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What is NRDA?





Natural Resource Damage Assessment

- Process of determining:
 - The injury (harm) caused by releases of hazardous chemicals/oil on natural resources and the services they provide, and
 - The amount of restoration necessary to compensate for natural resource and service losses over time, to "make the public whole"
- Authorized under federal and state laws

What Are Natural Resources?

Natural Resources:

- Land, fish, wildlife, biota, air, water, groundwater, drinking water supplies
- Typically categorized into five groups: surface water, groundwater, air, geologic, and biological resources









What Are Services?

Services:

The physical and biological functions performed by the resource, including the human uses of those functions







NRDA vs. Remediation

Remediation

Clean up contaminated areas to manage exposure and risk to human health and the environment



NRDA

Restore natural resources to compensate the public for harm that has occurred over time



What Is NRDA Restoration?

Restore, rehabilitate

Replace and/or acquire the equivalent







Restore/rehabilitate: Restore degraded habitat



Acquire: Purchase and restore habitat that provides similar services



Replace: Provide access to equivalent lands

Identifying Restoration Projects

- Projects will be identified through an RFP process
- Restoration projects are selected by the DNR and MPCA
- Funds flow to implementing parties through grants
- Trustees track projects and report benefits to the public

What are Per- and Polyfluoroalkyl Substances (PFAS)?

- Large class of surfactants with unique chemical & physical properties that make some of them (like PFOS & PFOA) extremely resistant to breakdown and mobile in the environment
- Used since 1940s in wide range of consumer and industrial applications
 - PFOS: Key ingredient in Scotchgard. Also used for textiles, wax, polishes, paints, varnishes
 - PFOA: Used to make Teflon, baking paper and food packaging
- Has been linked to certain health effects (see MDH website)











Source: open access images - bing.com

PFAS in the Environment – Why is this an Issue?



BIOMAGNIFICATION



- Once released into the environment, PFAS do not break down in typical environmental conditions ("forever chemicals")
- PFAS is then taken up by plants and invertebrates, which then are consumed by other organisms
- PFAS tend to bioaccumulate and biomagnifies in exposed wildlife species



Ecological Harm from PFAS

- PFAS releases to environment cause injuries to fish and wildlife
 - Acute toxicity of organisms (e.g., plants, invertebrates, amphibians, fish)
 - Other harm, including developmental, reproductive, immunological, morphological, and neurological effects
- Numerous studies in East Metro area on these injuries
 - For example, PFAS is causing reduced hatching success in tree swallows
- PFAS in fish is a concern for human health reflected by fish consumption advisories
- PFAS releases have resulted in injuries to vulnerable wildlife species and lost recreational opportunities
- Priority 2 is intended to replace, protect, enhance these natural resources and services that have been lost



Timeline of the 3M PFAS Settlement

- 2002: 3M informs MPCA of PFAS in production wells at Cottage Grove facility
- **2007:** MPCA and 3M agree to consent order outlining what 3M is responsible for under state Superfund (remediation program)
- **2010:** Attorney General files Natural Resource Damage lawsuit on behalf of State, with MPCA and DNR as trustees
- 2018: 3M settles lawsuit for \$850 million
- **2018:** Under the highest priority of ensuring safe and sustainable drinking water, Priority 1 work groups are formed
- 2021: Release of the Conceptual Drinking Water Supply Plan
- **2022:** Under the second highest priority of enhancing natural resources, Priority 2 internal agency planning begins
- 2023: Work groups created and will meet to provide feedback on Priority 2 planning

- 3M agreed to \$850 million settlement to the State to be used for long-term solutions in the East Metro Area (\$720M after legal and other expenses)
 - Priority 1: Safe and sustainable drinking water
 - Priority 2: Restoration and enhancement of natural resources (up to \$20M set aside immediately)
- Preserves 3M's obligations under the 2007 Consent Order to remediate disposal sites and provide safe drinking water
- Community participation through a Work Group is required

Priority 2 Settlement Language

"utilize the Grant on projects that restore and enhance aquatic resources, wildlife, habitat, fishing, resource improvement, and outdoor recreational opportunities in the East Metropolitan Area and in downstream areas of the Mississippi and St. Croix Rivers.

These projects may include, but are not limited to:

- (i) aquatic habitat and water resource protection and restoration;
- (ii) terrestrial and water trails;
- (iii) boat ramps and/or fishing piers along the Mississippi River, Lake Elmo, or other waterbodies in or downstream of the East Metropolitan Area;
- (iv) the restoration of wildlife habitat; and
- (v) implementation of other terrestrial conservation and recreational improvements in the same geographic area."



Local Participation

- MPCA and DNR will work collaboratively to evaluate proposed natural resource projects
- Government and 3M Work Group & Residents Work Group created to advise the co-trustees
 - Topics for Work Group discussion and feedback:
 - Priority 2 goals
 - Priority 2 screening and evaluation criteria
 - RFP scope and language
 - Integrating PFAS contamination status of proposed project sites



Questions?

 Clarifying questions from Work Group members about the Settlement or NRDA?

