



**The Basics of
Natural Resource Damage
Assessment & Restoration (NRDAR)**



What is NRDAR?

Natural Resource Damage Assessment & Restoration

- Specialized process of assessing injuries, producing damage claims and conducting restoration
- Under CERCLA, OPA, CWA and HSCA, certain agencies are entitled to recover damages for injuries to natural resources and natural resource services as a result of a release of a hazardous substance.
- Funds or other compensation received for these injuries are used to restore the lost resources and resource services.
- NRDAR is over & above any requirements for remediation of a hazardous substance release.

Trustee Agencies

- DNREC
- U.S. Department of the Interior
- U.S. Department of Commerce
- Native American Tribes

Each agency has jurisdiction over a specific set of natural resources. Jurisdiction is shared when there is overlap.



Natural Resources



- Biological
- Surface Water
- Groundwater
- Air
- Geological



Natural Resource Services

- Benefits that natural resources provide to the ecosystem or to humans
- Groundwater provides:
 - Drinking water supply & storage
 - Replenishment of surface water in waterways & wetlands

NRDAR under HSCA



- Pre-assessment Phase
- Assessment/Restoration Planning Phase
- Post-assessment Phase



Pre-assessment Screen

- Release of a hazardous substance has occurred.
- Natural resources have been or are likely to have been adversely affected by the release.
- The quantity & concentration of the released hazardous substances is sufficient to cause injury.
- Sufficient data to pursue an assessment is readily available.
- Remedial actions will not sufficiently remedy the injury to natural resources without additional action.

Assessment Phase

- Injury Determination
- Quantification
- Damage Determination



Baseline



Conditions that would have existed for the natural resource and/or in the assessment area if the release of a hazardous substance had not occurred

Injury



The measurable adverse change (long term or short term) in the chemical, biological or physical qualities, or the viability of a natural resource as a result of a release of a hazardous substance, or the attempt to mitigate a release

Assessment Phase

- Injury Determination
- Quantification
- Damage Determination



Damage



The value of restoration needed to compensate for the injury to the natural resource or natural resource services

Post-Assessment Phase

- Compensation for injury
- Restoration Alternatives
- Restoration Plan
- Nexus to Injury



Indian River Oil Spill



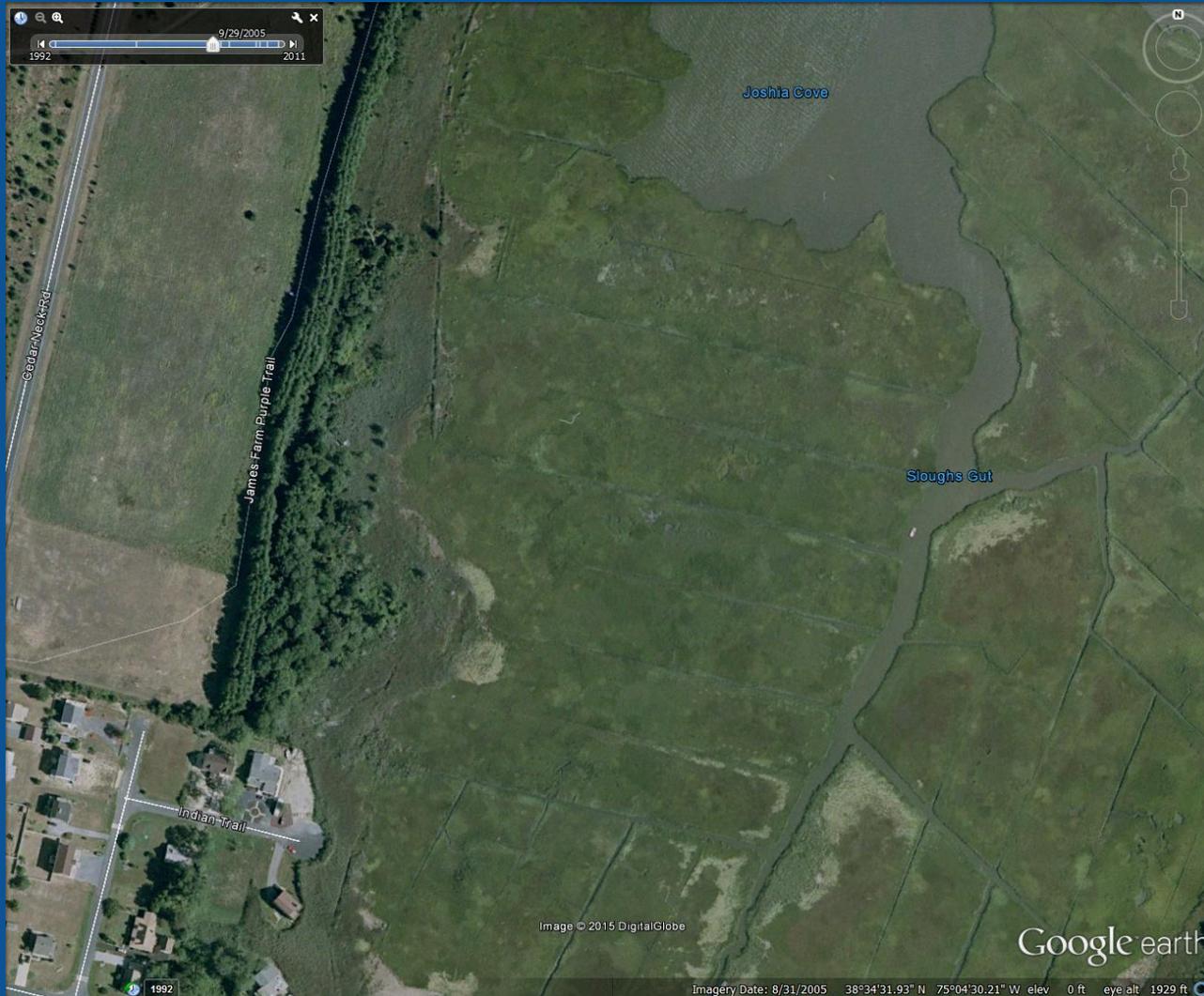
- Underground leak of No. 2 Fuel Oil into Indian River
- After oil was cleaned up, river bank was restored with plantings
- Another release to the river occurred due to a failure of the remedial action
- Compensatory restoration was required

Indian River Oil Spill

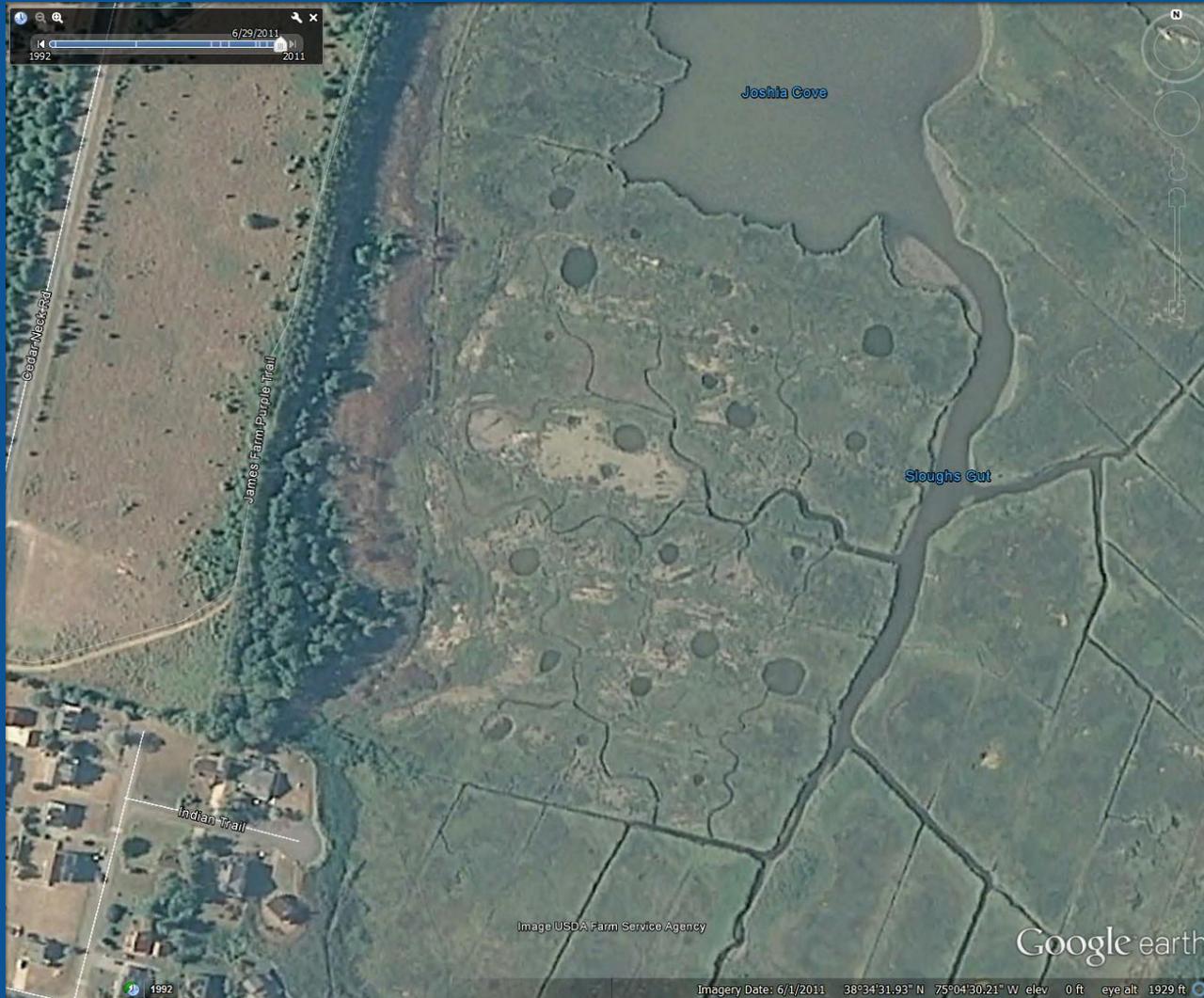


- Slough's Gut chosen as compensatory restoration location
- Transformed a salt marsh with mosquito ditching to a more natural salt marsh habitat

Slough's Gut Before



Slough's Gut After



Questions



For more information, please contact:

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