

The Value of an Ephemeral Data Collection Plan (EDCP) for coastal facilities

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Ephemeral Data Collection Plan



Discussion Overview

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- Without pre-planning, the opportunity to collect baseline environmental data may be lost during the early stages of a spill
- These lost data could be critical should an NRDA occur following a spill
- An ephemeral data collection plan (EDCP) details sampling protocols and priority locations around a facility to enable quick response to an incident
- Working with local/state/federal regulators while developing an EDCP establishes pre-approval for sampling locations and procedures, and more importantly helps build trust between industry and agencies.

Ephemeral Data



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- Time sensitive information about current (pre-oiled) conditions that, if not collected, will be forever lost
- May be critical to the subsequent assessment of injuries to natural resources during an NRDA
- Ephemeral data generally include:
 - Source oil sample
 - Petroleum hydrocarbons in water column under the slick
 - Water, sediment (shoreline), invertebrate tissue samples in front of slick
 - Initial assessment of impacted wildlife
 - Initial assessment of shoreline and human use impacts

Ephemeral Data Collection Plan (EDCP)



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- **Primary Purpose**

- Describe notification procedures, sampling locations, sample media, sampling procedures, and chemical analyses in case of accidental release.
- Aids in understanding environmental conditions prior to a release (may be other sources of hydrocarbons present prior to release)
- Facilitate collection of critical data in the early stage of a response

- **Secondary Purpose**

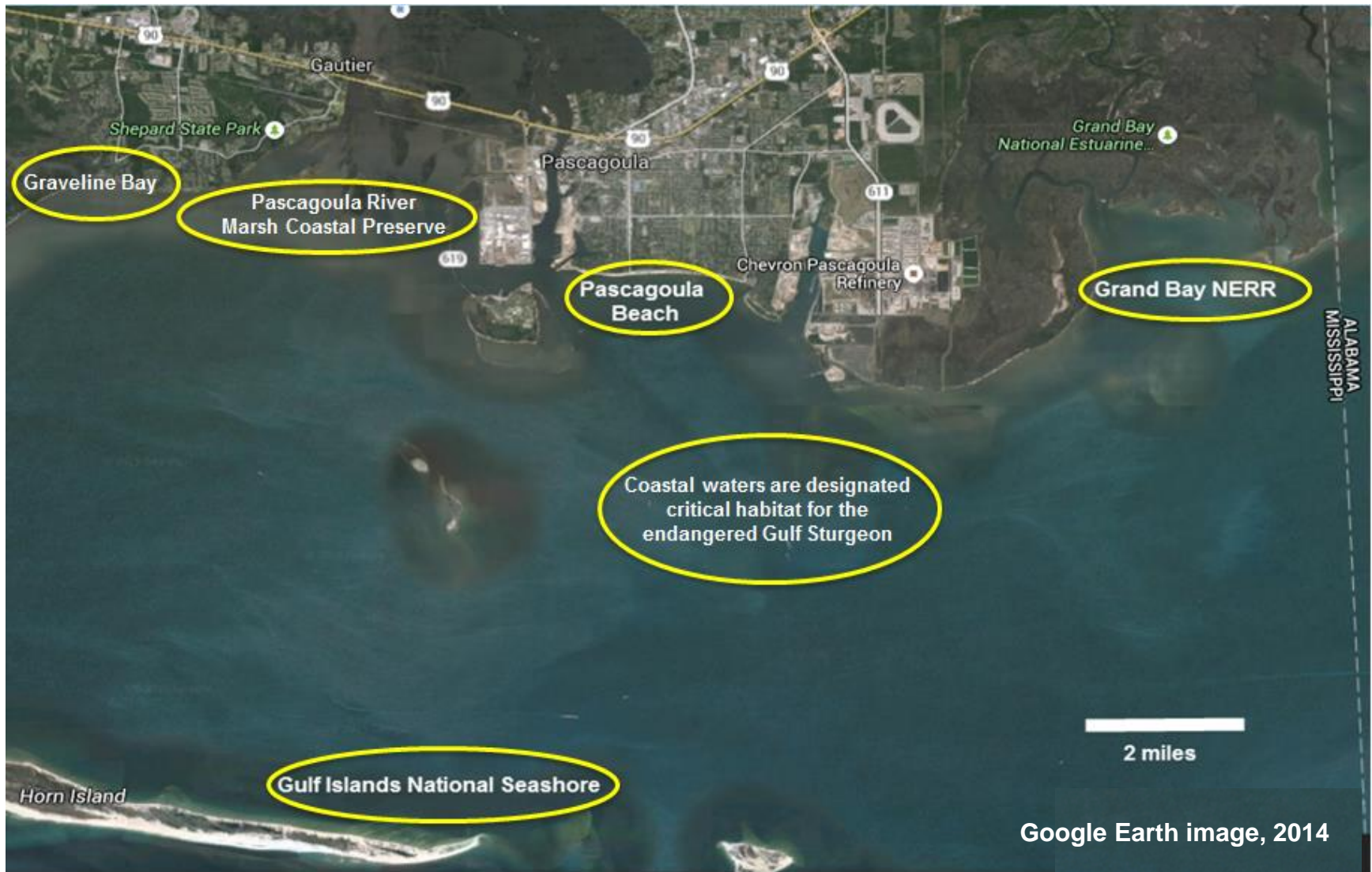
- Integration of local, state, and federal trustees
 - Relationship (trust) building
 - Agreement on sample locations and testing analyses
- Establish a biennial baseline or ambient monitoring plan
 - Documents other natural or anthropogenic sources of hydrocarbon
 - Shelf life of analyses may help cover immediate pre-spill conditions

Developing the EDCP

- starts with a table top exercise



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Developing the EDCP

- potential sampling locations



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Final EDCP Sample Location Map following field reconnaissance



Site sampling detail provided in EDCP

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Sampling Media

Types of sampling dependent on site location

Water

PAH (1 liter amber jars)

BTEX and VOAs (40 ml vial with acid)

Sediment

PAH (250 ml wide-mouth glass jar), composite

Tissue

PAH (30 g of tissue, or about 8-10 oysters)



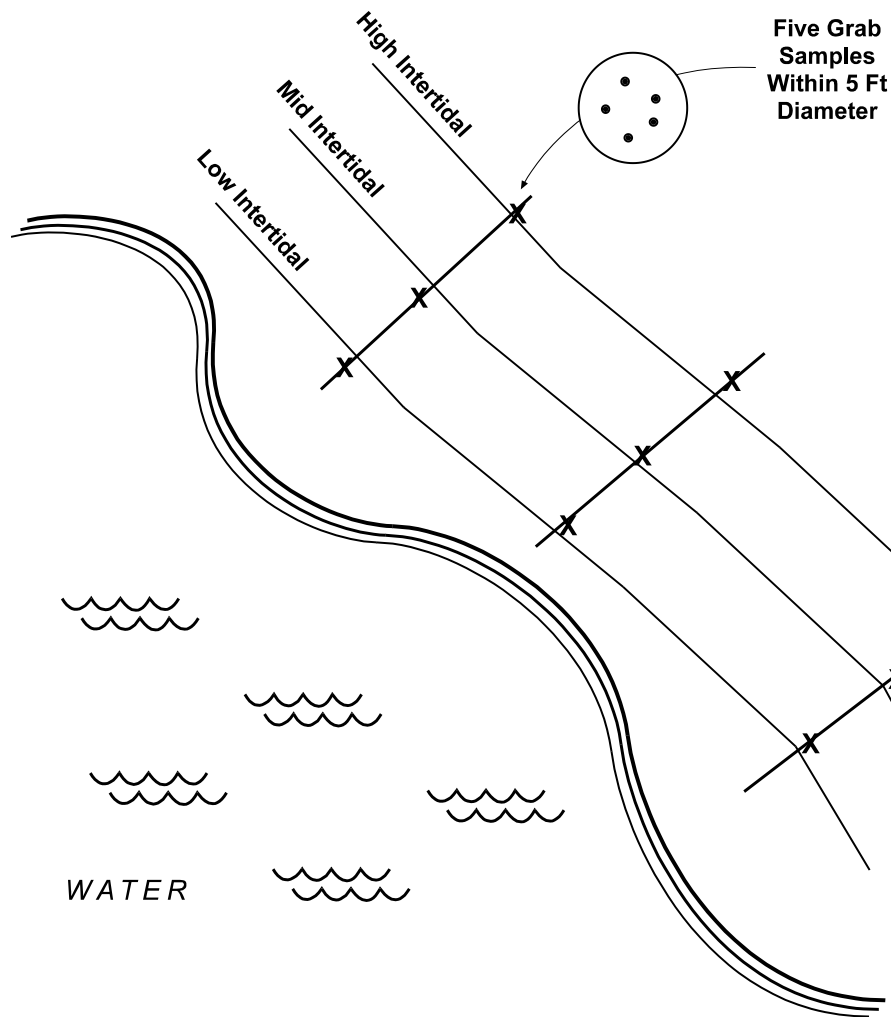
Methods/Media Collected Sediment Cores



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Tissue Sampling (Mussels and Oysters ~ 30g tissue)



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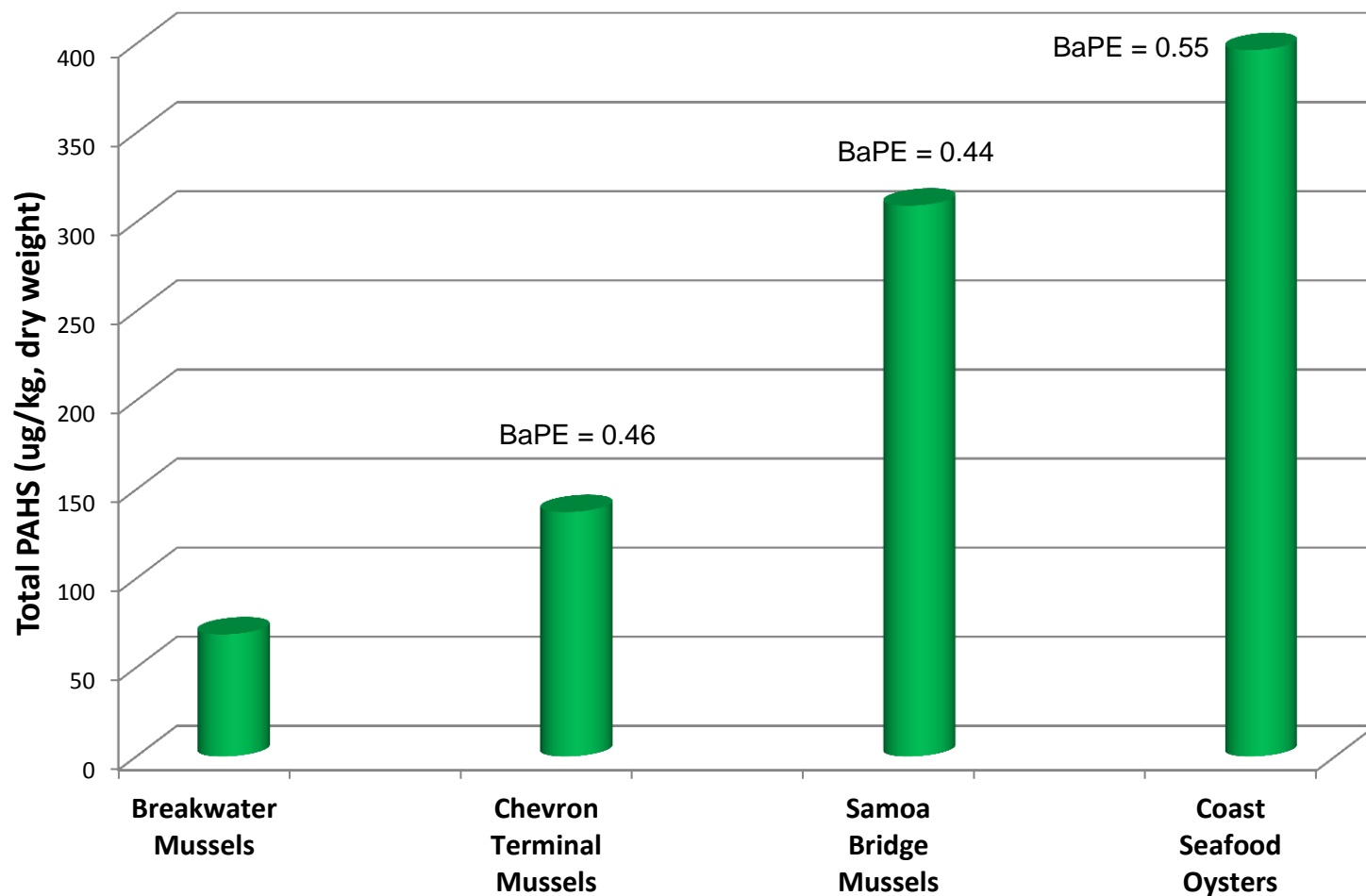


Mussel tissue Total PAH

(Example from Eureka Terminal, Humboldt Bay, CA)



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BaPE = benzo(a)pyrene eq
Public Health Protective Concen = 44 BaPE

Humboldt Bay Sampling Location

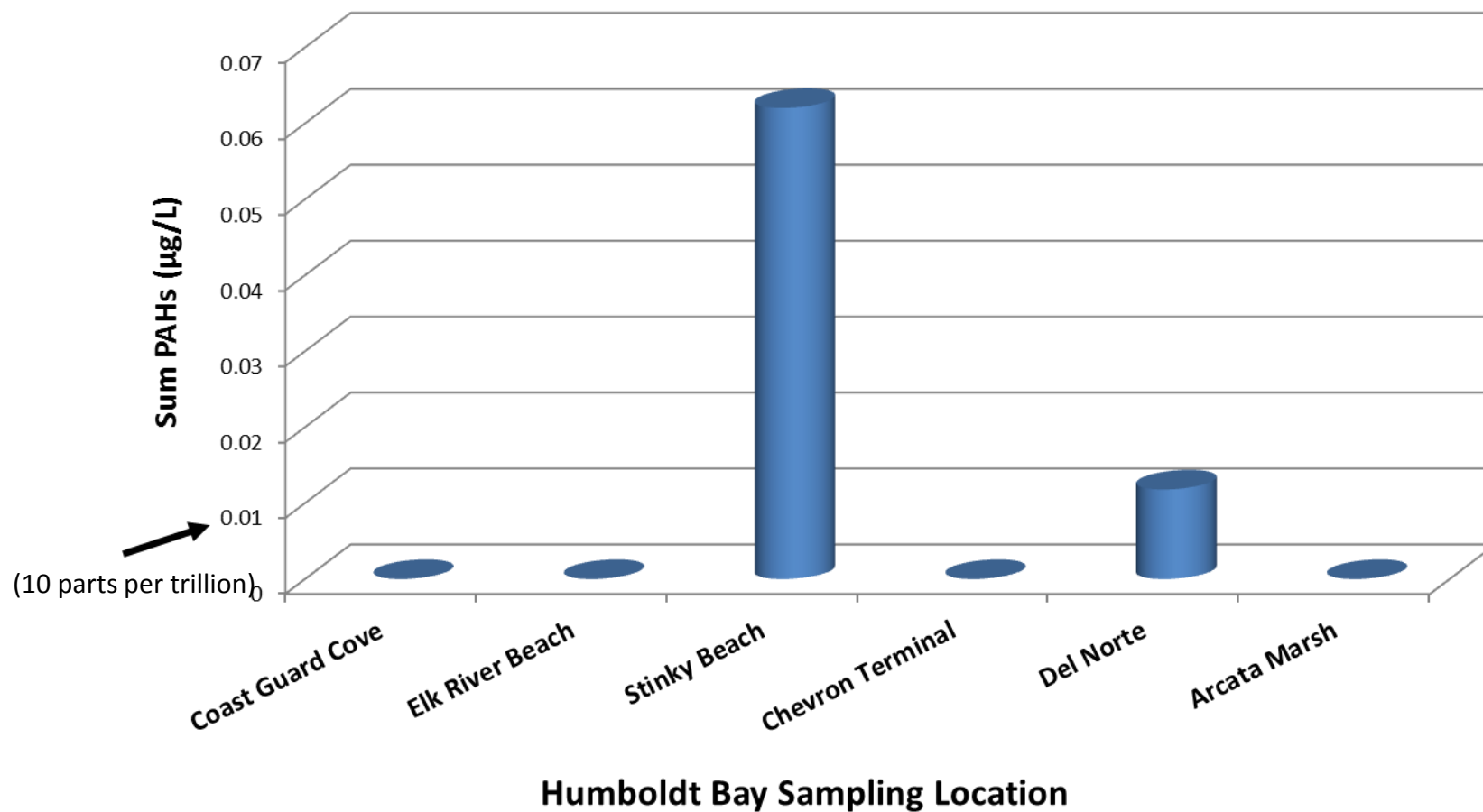
Surface water total PAH

(Example from Eureka Terminal, Humboldt Bay, CA)



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Surface Water (November 2011)



Ephemeral Data Collection Plan

Summary



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- Developing a facility EDCP will help obtain data that normally might be missed during a spill response.
- These data could be critical should an NRDA action occur following a spill, possibly saving considerable time, cost, and liability for the RP.
- Benefits of a facility Ephemeral Data Collection Plan include:
 - Training of responders for pre-approved sampling locations and protocols
 - Sampling materials on standby for quick response
 - Historical baseline data that could be valuable should some sample sites be missed during a spill response
 - Building trust with agencies that could be invaluable to both a spill response and any follow-up NRDA action