***Pre-Spill SCAT Arctic River Segment / Reach Survey Form***

**1 GENERAL INFORMATION**

Area: Location: Survey Date: Survey Time:

Segment:

Water Level: low / mean / bank full / overbank flow

Observer Name: Weather/Wind: Participants:

Ice and Snow Conditions:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2 PHYSICAL CHARACTER**  Segment Length: m  Left – Right Bank (Circle)  Channel Width (water): m  Bank Width: \_\_\_\_\_ m  (water line to top of UB)  *POTENTIAL OIL BEHAVIOR:*  natural alongshore movement barrier: yes / no man-made alongshore barrier: yes / no  slough or embayment: yes / no  shoals: yes / no  meander with point bar: yes /no | **SUBSTRATE TYPE (from list below)**  Bedrock Cliff/Ramp: Man-Made Solid  Solid Ice  Bedrock Platform  Sand Bank/Beach  Coarse-grained Sand Bank/Beach  Mixed Sand, Pebble, Cobble Bank/Beach  Pebble, Cobble Bank/Beach  Boulder/Riprap: Ice Floes  Man-Made Impermeable (wharf: pilings)  Mud or Sand Flat  Peat  Wetland / Low-Lying Tundra | | **\*LB** | **\*UB** | **\*OB** |
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| \* OB = overbank; UB = upper bank; LB = lower bank | | | | |
| meander with cut banks: yes / no  flood-plain valley: yes / no  pebble-cobble shoreline/penetration potential: yes / no  riprap, boulder shoreline/penetration-remobilization potential: yes / no tundra potential for oiling during overbank flow: yes / no  other: | | **VALLEY - CHANNEL CHARACTER**  cliff \_\_\_\_flood plain riffle  canyon braided pool  straight ox bow \_\_\_\_glide  leveed cascade \_\_\_\_point bar  meander rapids \_\_\_\_vegetated | | | |

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| --- | --- | --- | --- |
| **3** | **RESOURCE ISSUES:** | | |
|  | *Primary Resource(s) at Risk* | *Response Constraints* |
| Environmental |  |  |
| Cultural |  |  |
| Human Use/ Economic |  |  |

**4 OPERATIONAL CHARACTERISTICS**

Surrounding Human Use Activities (if any): Natural / Commercial / Residential / Recreational

Potential nearby access: fixed-wing\_ ; helo pad/landing ; boat landing\_ ; ATV Access constraints/limitations: Describe the amount of pre-impact debris pickup/relocation work? (light / moderate / heavy) No. of bags?

(estimate # of bags)

|  |  |  |
| --- | --- | --- |
| remote: yes / no | channel bars/shoals: yes / no / ? | narrow river bank: yes / no |
| staging areas: yes / no | deep water: yes / no / ? | river bank suitable for machinery: yes / no / ? |
| road access: yes / no / ? | strong currents: yes / no | backshore cliff: yes / no |
| alongshore access: yes / no / ? | Wetlands / low Tundra: yes / no | tundra cliff/backshore: yes / no |

Comments:

**5 OPERATIONAL SAFETY CONSIDERATIONS**

*Note Safety Constraints beyond Normal — or N/A:*

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***Pre-Spill SCAT segment survey form (page 2)***

**GENERAL INFORMATION** Survey Date: Area: Location: Segment: \_

**6 RESPONSE GOALS**

*SEGMENT PROTECTION OBJECTIVES: SHORELINE CLEANUP/TREATMENT OBJECTIVES:*

**Prevent contact with shore or resource(s) at risk Allow natural recovery**

**Minimize contact**

Prevent oil movement to adjacent segment(s)

Contain stranded oil

Prevent oil transport into inlet, estuary, or channel

Other:

*SEGMENT PROTECTION STRATEGIES:*

**Restore shore to pre-oiling condition**

**Accelerate natural recovery**

Restore with minimal removal of material

Minimize oil remobilization

Minimize damage to dune, marsh, or peat bog

Other:

Contain/recover oil on water *SHORELINE CLEANUP/TREATMENT STRATEGIES:*

Alter direction of movement of oil on water

Prevent oil movement (landward) on flooding tides

Trap/contain and collect oil at the shoreline

Prevent remobilization of stranded oil

Prevent overwash into the backshore or a lagoon

Pre-impact shoreline debris removal

Other:

Monitor

Act quickly to remove stranded oil before burial

Remove bulk oil only

Minimize waste generation using *in-situ* treatment methods

Manual techniques preferred

Salt-marsh fringe/meadow treatment strategies

Man-made backshore riprap treatment techniques

Other:

**7 METHODS** *---------- (check all that are appropriate and feasible) -----------*

(mark “?” if possibly useful; mark “X” if not recommended or inappropriate)

*POTENTIAL CLEANUP/TREATMENT OPTIONS:*

*POTENTIAL PROTECTION OPTIONS:*

\_1. Nearshore containment/recovery

\_2. Nearshore redirection (away)

\_3. Nearshore redirection (towards)

\_4. Exclusion boom

\_5. Shoreline (intertidal) protection boom

\_6. Shoreline barrier/berm

\_7. Contact barrier

\_8. Channel boom/barrier

1. Natural recovery

2. Flooding

3. Low-pressure, cold wash

4. Low-pressure, hot/warm wash

5. High-pressure, cold wash

6. High-pressure, hot/warm wash

7. Steam cleaning

8. Sandblasting

9. Manual removal

10. Vacuums



11. Mechanical removal

12. Vegetation removal

13. Passive sorbent

14. Tilling/Aeration

15. Surf washing/Sediment reworking

16. Burning

17. Dispersants

18. Shoreline cleaners

19. Solidifiers

20. Bioremediation/Nutrient enrichment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **8** | **OPERATIONAL ISSUES**  *SPILL SITE ACCESS: (Enter “No” or “Yes”)* | | | | | | | |
| To/From: | Trucks | Heavy Equip. | 2X4 P/U | Backhoes | ATVs | > 50 ft. Vessel | < 15 ft. Runabouts |
| Staging Area/  Backshore |  |  |  |  |  |  |  |
| Intertidal |  |  |  |  |  |  |  |
| Subtidal Water |  |  |  |  |  |  |  |
| *HEAVY EQUIPMENT USE FEASIBILITY: (Enter “Good”, “Fair”, “Poor”, or “No” based on ability to operate)* | | | | | | | |
|  | Grader | Bulldozer | Front-end  Loader | Backhoe | Bobcat | 4x4 P/U | ATVs |
| Access Alongshore |  |  |  |  |  |  |  |
| Bearing Capacity |  |  |  |  |  |  |  |
| Beach Slope/Width |  |  |  |  |  |  |  |
| Maximum Distance to Temporary Storage from Cleanup Site? (metres) | | | | | | | |

**9 COMMENTS**

**10 VISUALS**

SKETCH Attached: yes / no PHOTOS Attached: yes / no

VIDEO: yes / no tape #

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