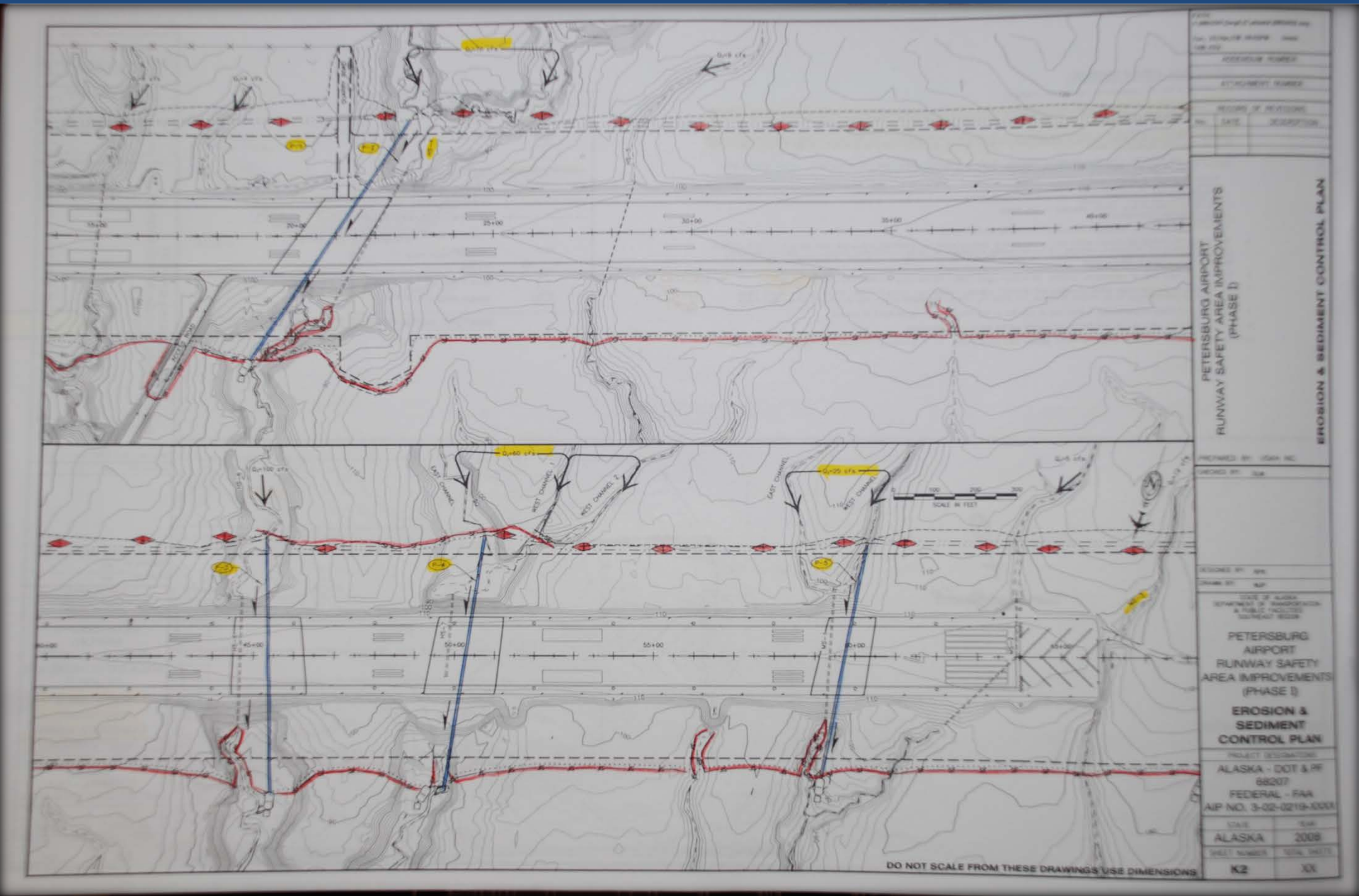
Alternate Perimeter Controls

Down-Slope Sediment Controls

Tasty BMP's

Sediment controls tight to the work area. Good, Bad, Both?



ALL DISTURBED AREAS (EVEN SMALL AREAS) MUST HAVE SEDIMENT CONTROLS INSTALLED

Silt Fence

BMP
WA C-233
OR SC-1
AK - 18

- Used down slope of disturbed areas
- Captures water and sediment
- Contains site soils
- At grade pond

Ft. Yukon

Silt Fences Should Not Be
Used for Concentrated Flows

Silt Fences are Not For V-Shaped Channels

Behold: The worlds most effective silt fence

Silt Fence Installed on Contour

Silt Fence Sedimentation

- Sedimentation Behind Silt Fences is Evidence of Proper Siltation
- Without Sedimentation Water is Perhaps Flowing Underneath or is Going Someplace Else
- When Sediment Accumulates up to 1/3 the Height of the Fence – Clean Out

Wire Backed Silt Fence
Sand Bag Toe & J Hooks
Ketchikan

Frozen Ground Installation

Photo Courtesy Michael Travis

Silt Fence Repair

Remove sediment from silt fences, check dams, berms or other controls before the accumulated sediment reaches one-half (½) the distance up the above-ground height (or it reaches a lower height based on manufacturer's specifications) of the control measure.

Fairbanks

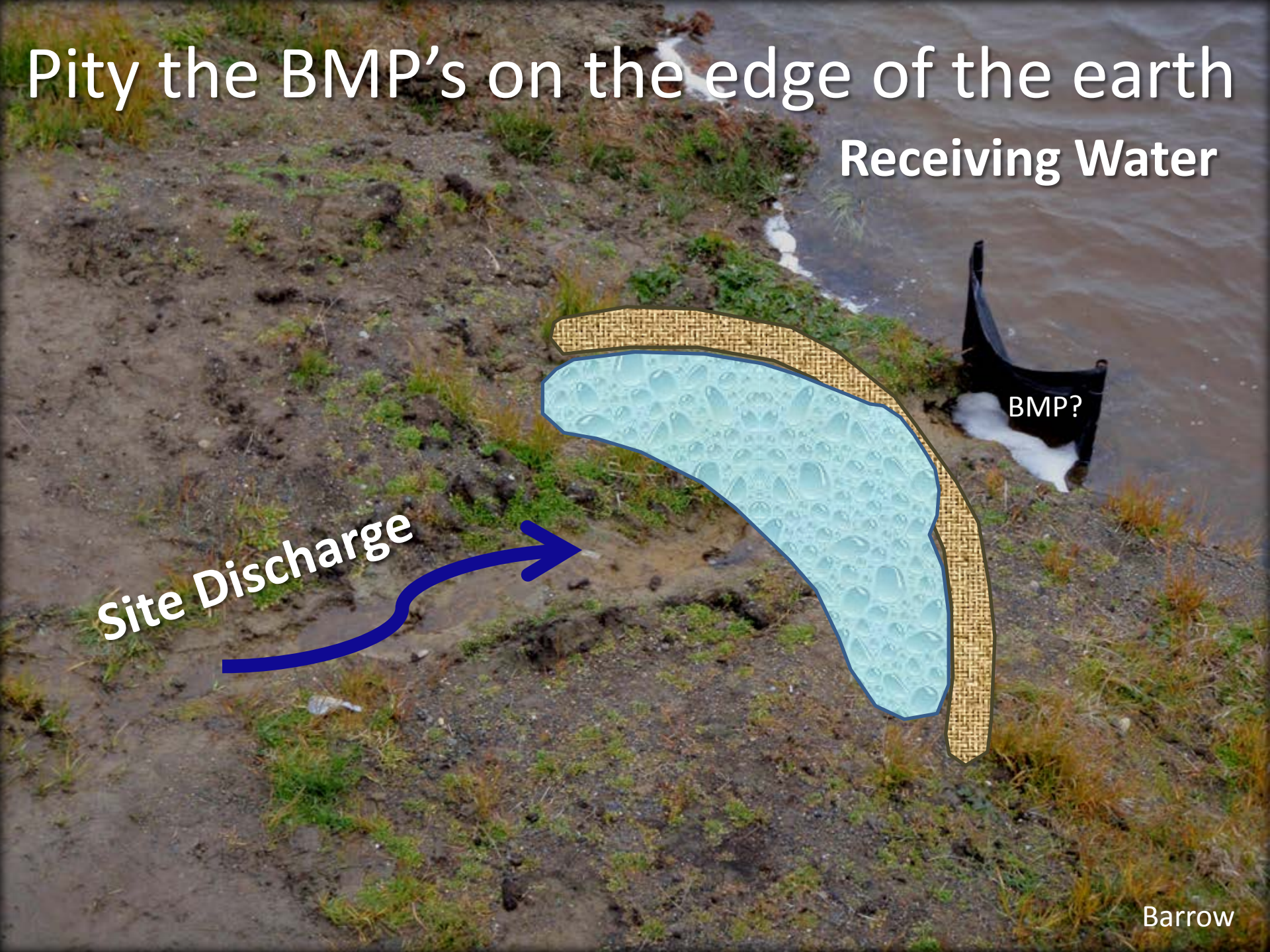
Compaction of Backfill is Critical

- Good Compaction of Backfill is the Most Crucial Element of Proper Installment as it Prevents Saturation & Piping Underneath
- Trenches Must Also Be First Cleaned of Debris to Help Avoid Blowouts

Pocketed Silt Fence

Silt Fence Fabrics Differ Greatly
BMP
WA C-233
OR SC-1
AK 18
If you can see through it
what can get through it?

Longevity
Break Up Survival


Pity the BMP's on the edge of the earth
Receiving Water
BMP?
Site Discharge
Barrow

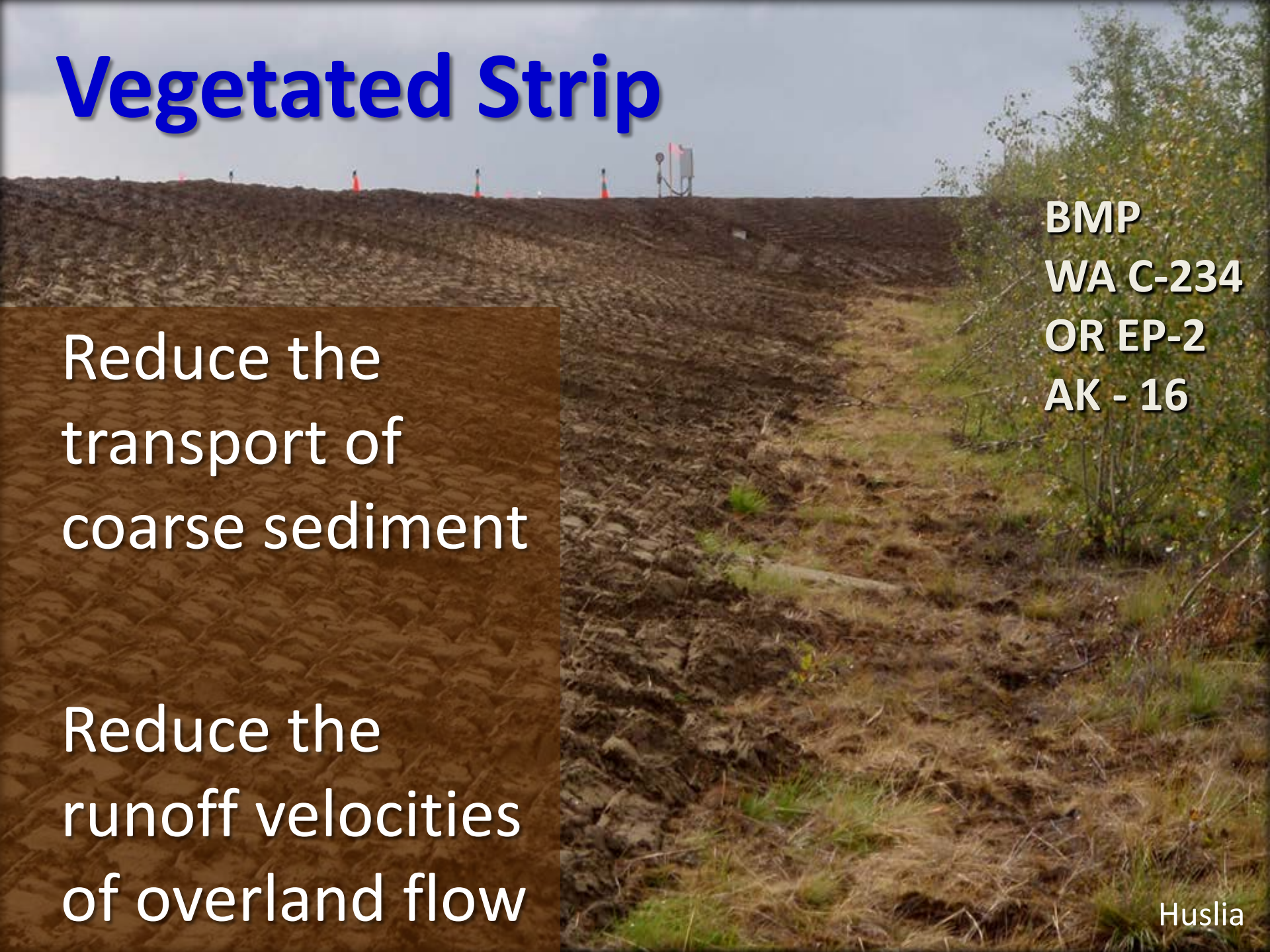
Down Slope Sediment Controls

Compost Berm

- ✓Perimeter Control
- ✓Slope length reduction
- ✓Soil Amendments

Down Slope Sediment Controls
Silt Fence
Straw Bale Barrier
Seeding
Temporary BMP's
Must be removed

Vegetated Strip



BMP
WA C-234
OR EP-2
AK - 16

Reduce the transport of coarse sediment

Reduce the runoff velocities of overland flow

Huslia

Kotzebue

Kotzebue, AK

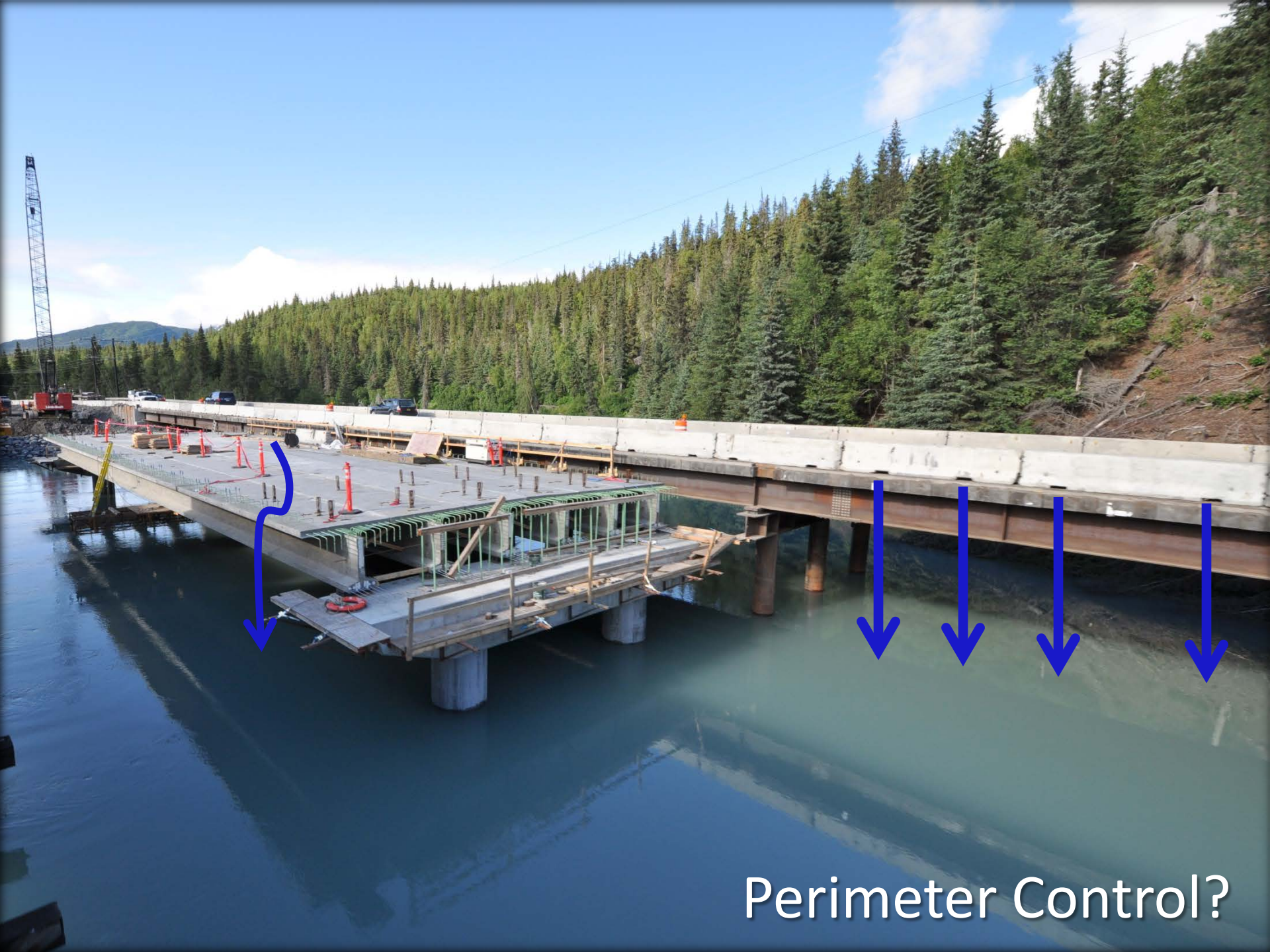
Installation Specs

Sitka

Temporary Crossings
create unique challenges.
Glenn HWY @ Hicks Cr.

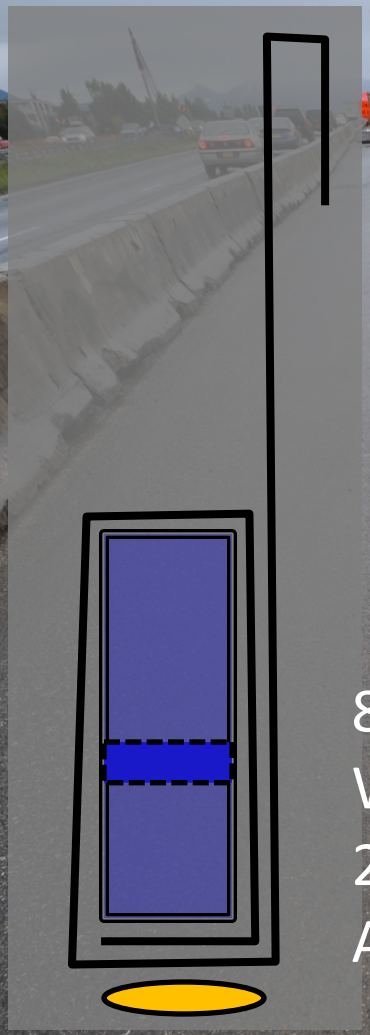
Bridge Deck Perimeter Control

Ketchikan


Perimeter Control?

Perimeter Control?

Tight Clearance

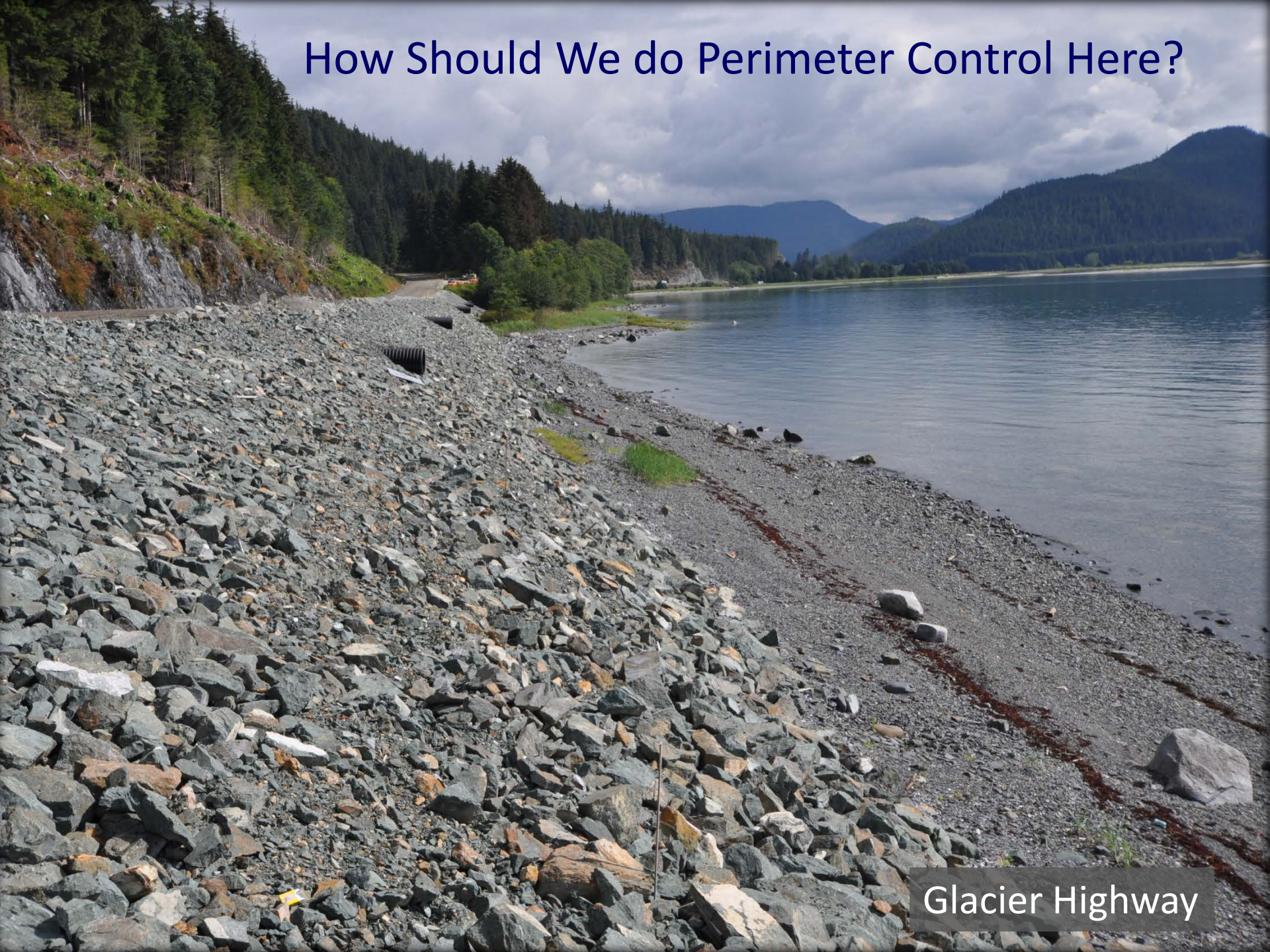


8oz Drainage Filter Fabric
Weep Holes (Maybe)
2x6 or larger
Adhesive / Sealant

Simple Solutions

Ice Pass Thru & Scour

How Should We do Perimeter Control Here?



Glacier Highway

Perimeter Controls On the Cheap and Easy

Gravel Berm Perimeter Control

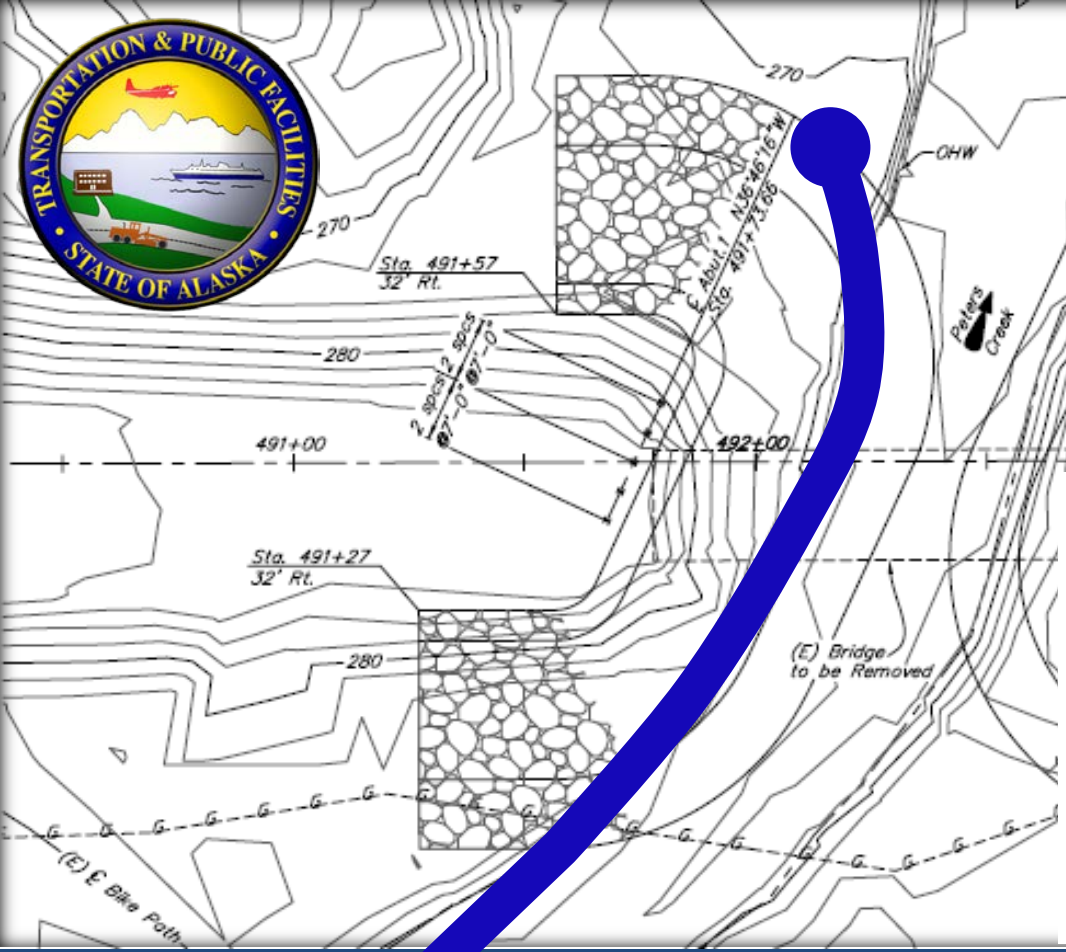
Glacier HWY Juneau

Glacier HWY Juneau

INTRODUCING:
The All NEW!
BERMANATOR

Glacier HWY Juneau

Glacier HWY Juneau



Prior to embankment fill:

1- Install Perimeter berm at OHW

2- Place 4 " gravel filter layer on berm

Upon completion of the approach fill:

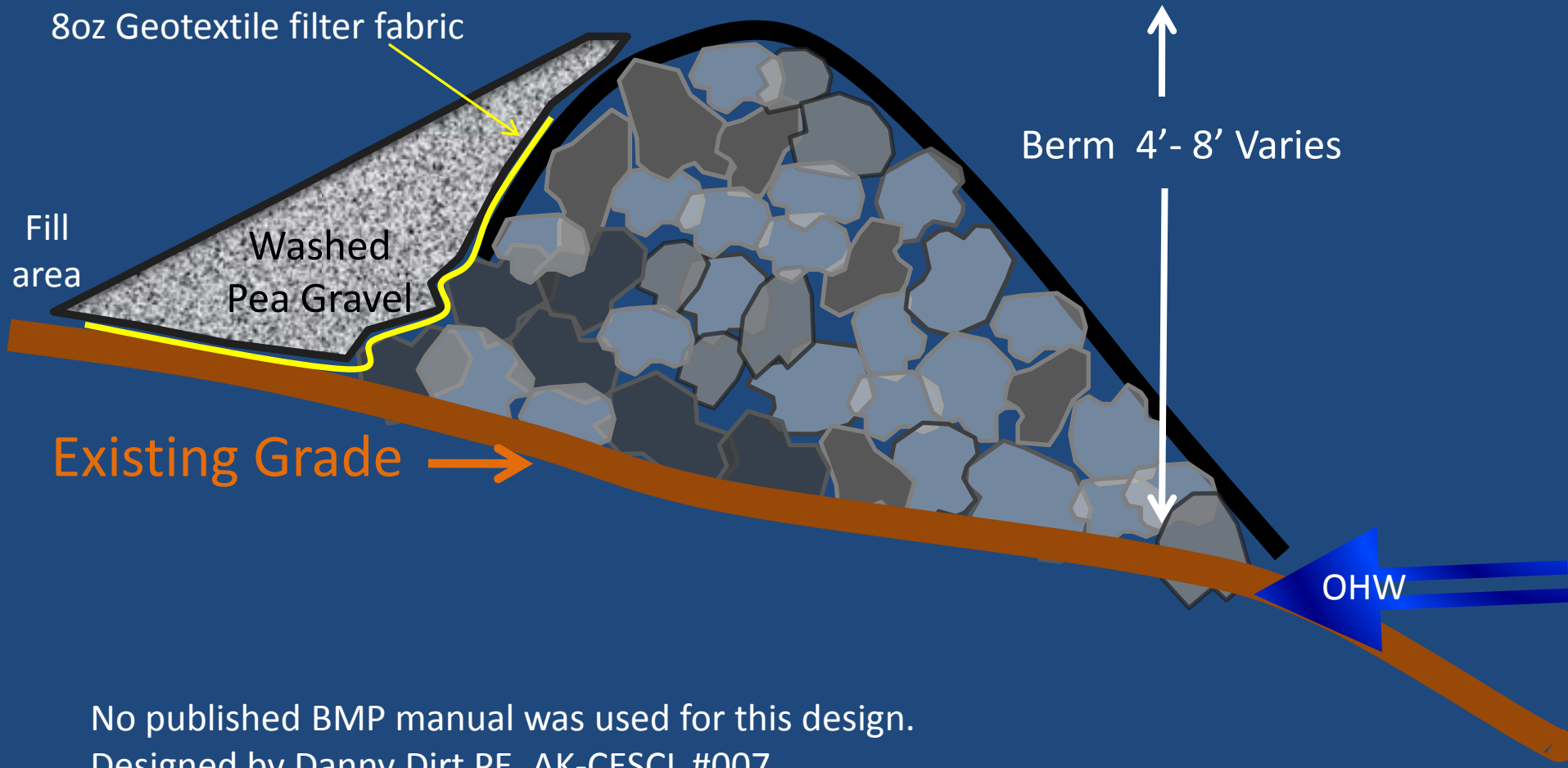
1- Place geotextile fabric

2- Place rip rap on slopes

See detail Plan sheet xxxxx

Describe the sequence and timing of activities that disturb soils and of BMP implementation and removal. Phase earth disturbing activities to minimize un-stabilized areas, and to achieve temporary or final stabilization quickly.

Example DOT&PF BMP



No published BMP manual was used for this design.
Designed by Danny Dirt PE, AK-CESCL #007

Perimeter Control

Gravel Filter Berm & Embankment Stabilization

Inspection/Monitoring/Reporting

- Know if your plan is working
- Document corrective actions

Describe location(s) of control measures that need to be maintained;

Emmonak

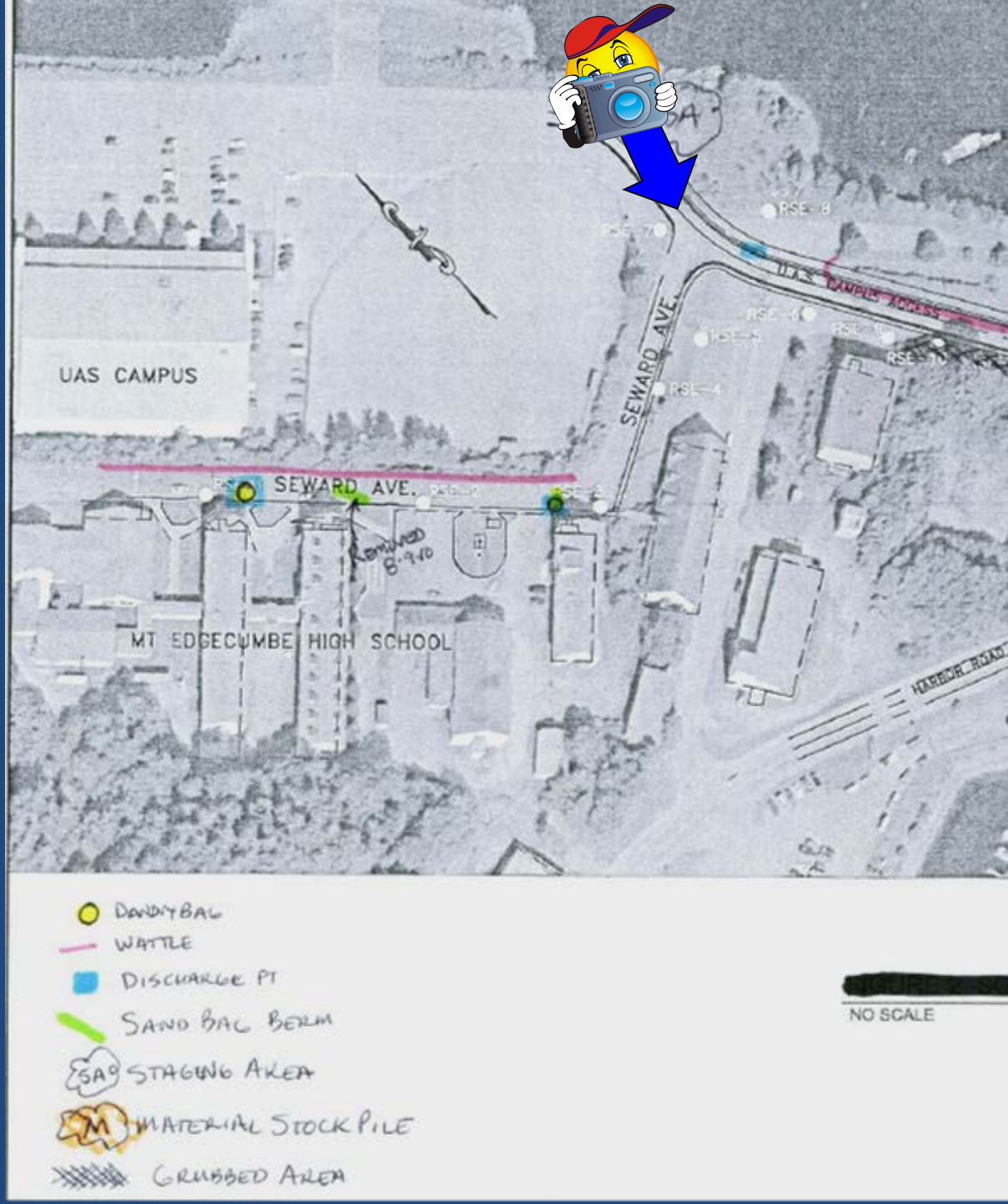
Inspection:

Perimeter Controls

Current site Map

Note:

✓ BMP locations



VOLVO
ONE LANE ROAD
No Perimeter Control

Unnecessary BMP's

Sitka

• Was it inspected?
• Do we know how to inspect?

What should the inspection report say?

Have you signed reports stating that
you are in compliance with the SWPPP & Permit?

Retraction from earlier:

This may be the worlds most effective silt fence.

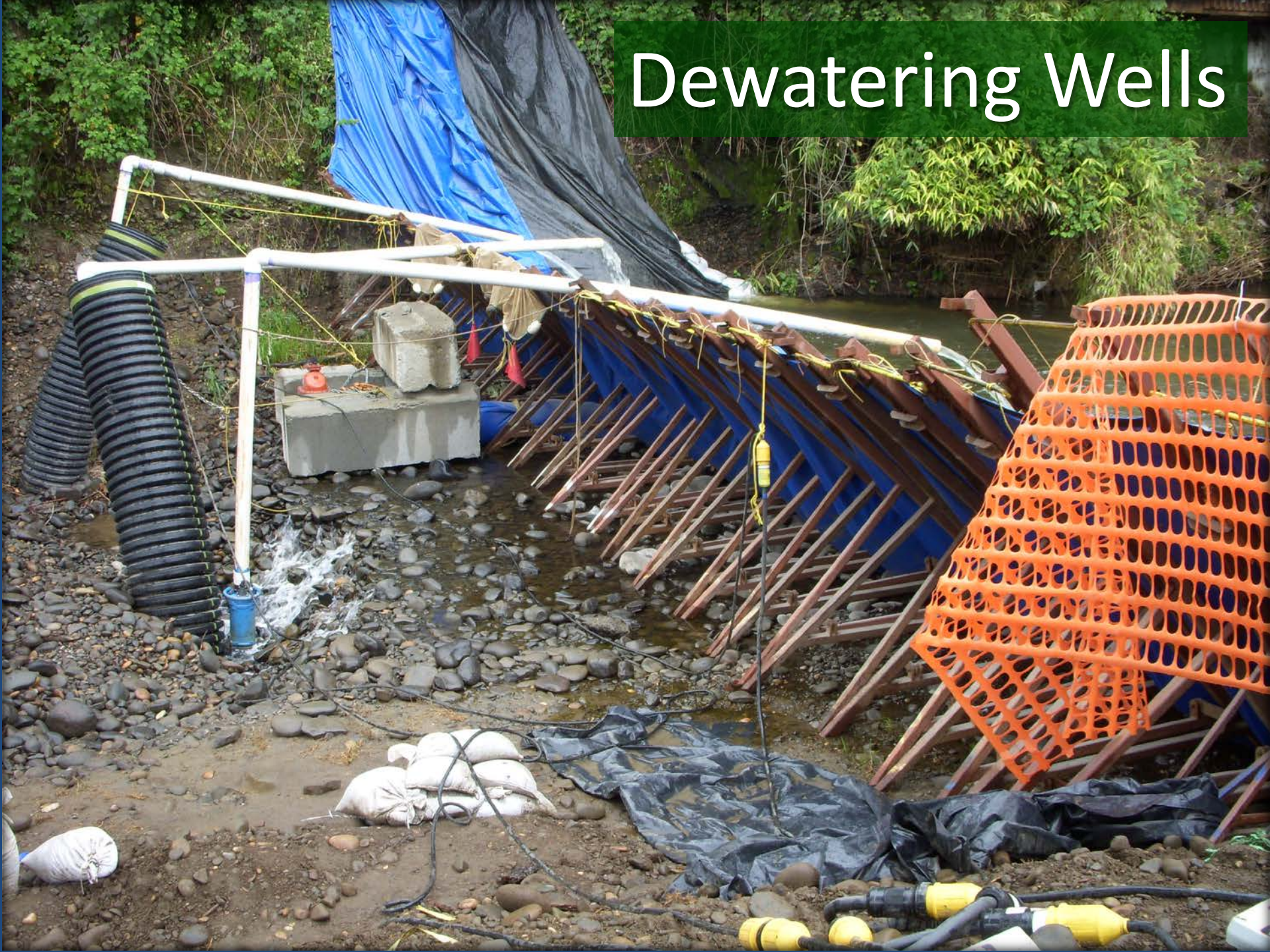
Barrow

✓ In Water Work
✓ Near Water Work
✓ Clean Water Work

Will this pass scrutiny?

Work Area Isolation

Salmon Creek at Hwy 99


Dewatering Wells

Production, Profitability, & Compliance

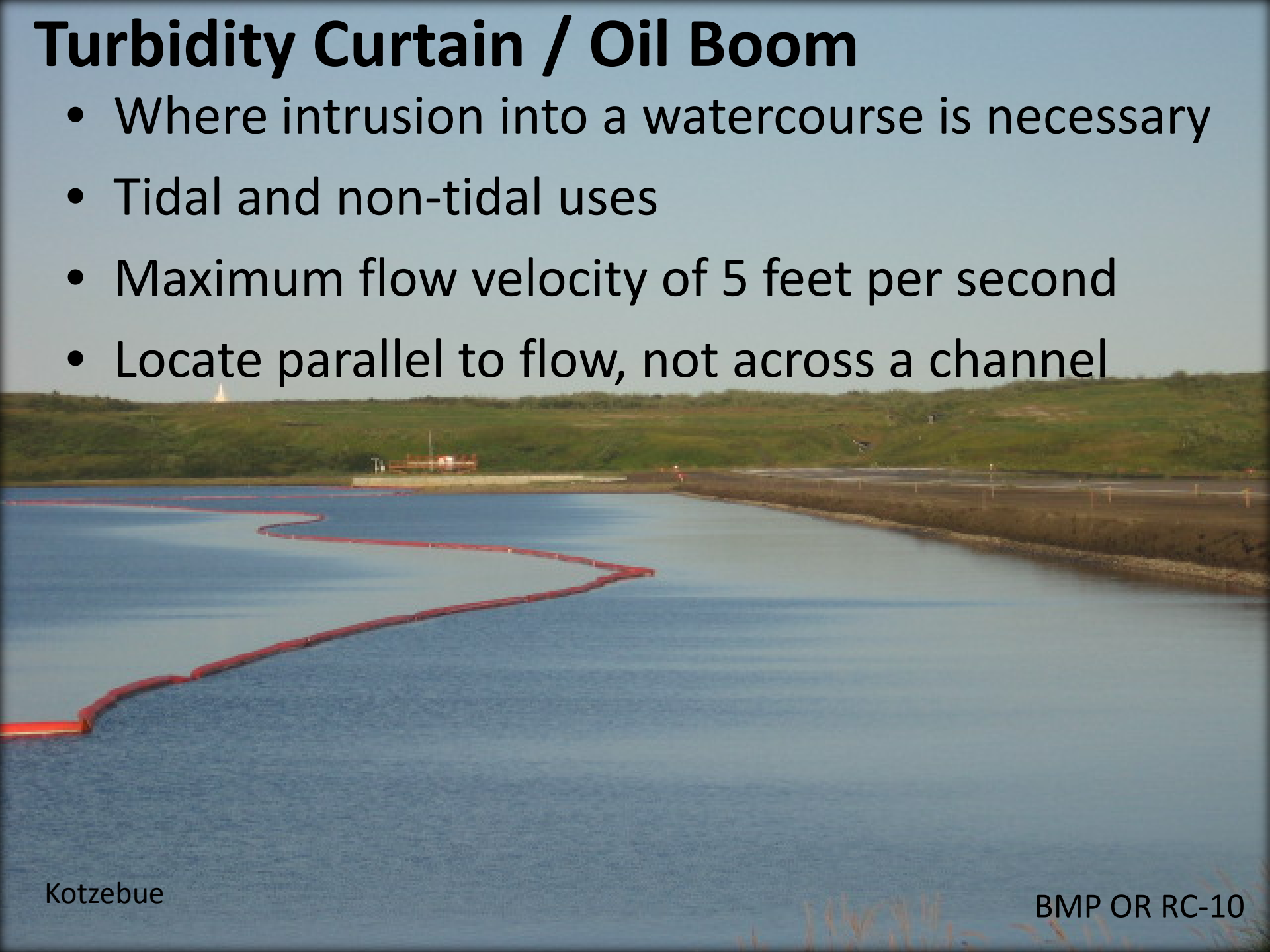
Aqua Dam

Haul Road
Isolation Liner
Swift Reservoir

Same Haul Road
HITACHI
CAT

Turbidity Curtain / Oil Boom

- Where intrusion into a watercourse is necessary
- Tidal and non-tidal uses
- Maximum flow velocity of 5 feet per second
- Locate parallel to flow, not across a channel



Kotzebue

BMP OR RC-10

Tidal Influences
make maintenance difficult
Turbidity/Silt Curtain

Too Much Flow ?

100 cfs

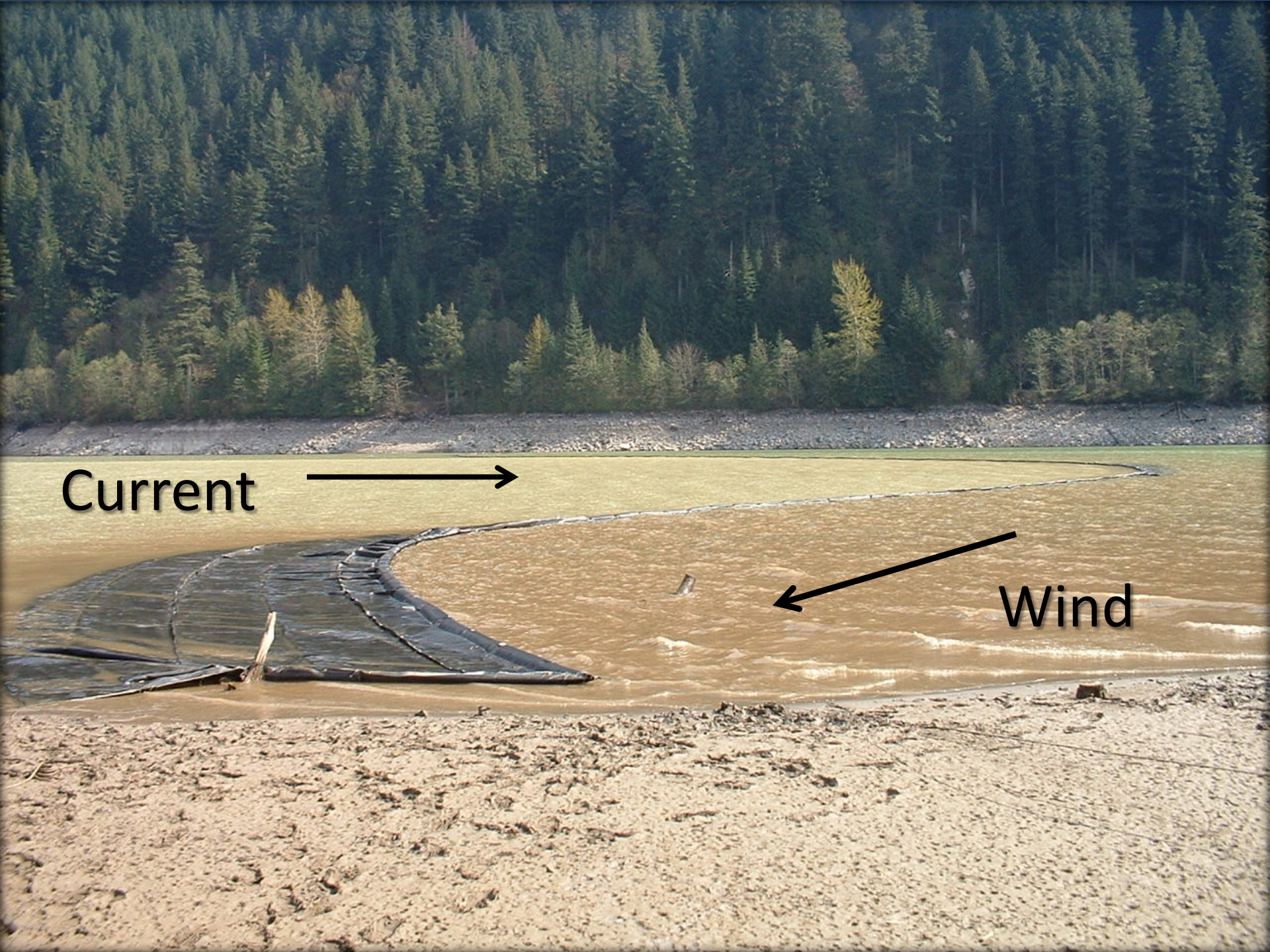
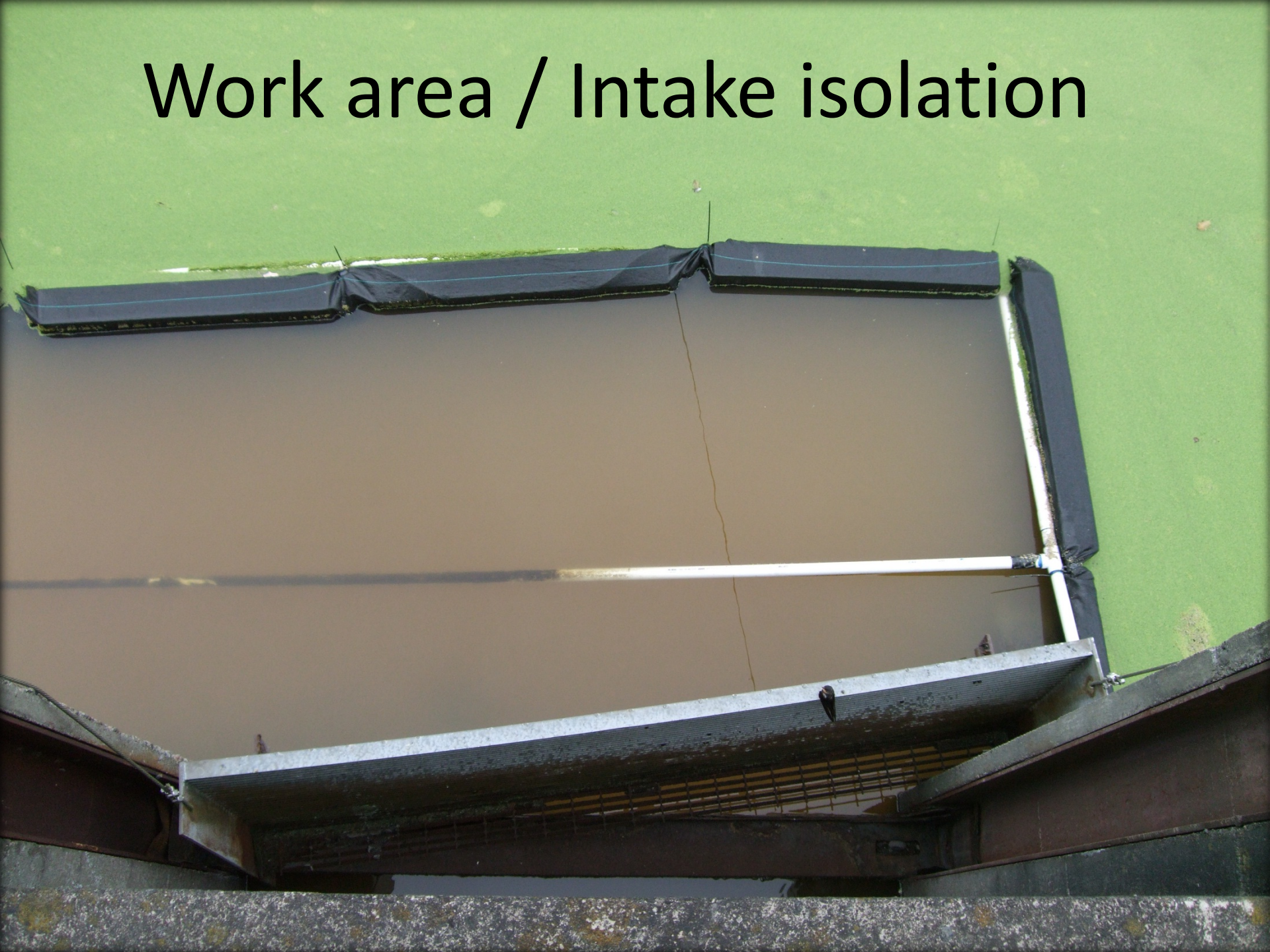

Current
Wind

Photo Courtesy of Paul Thompson

Work area / Intake isolation



Barrow

Barrow

COME VISIT

See what were up too!

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