

MI County Engineers' Workshop
February 13, 2013
Kewadin Casino Hotel &
Convention Center

by Koetje, Mitch (MDEQ)

AUDIT



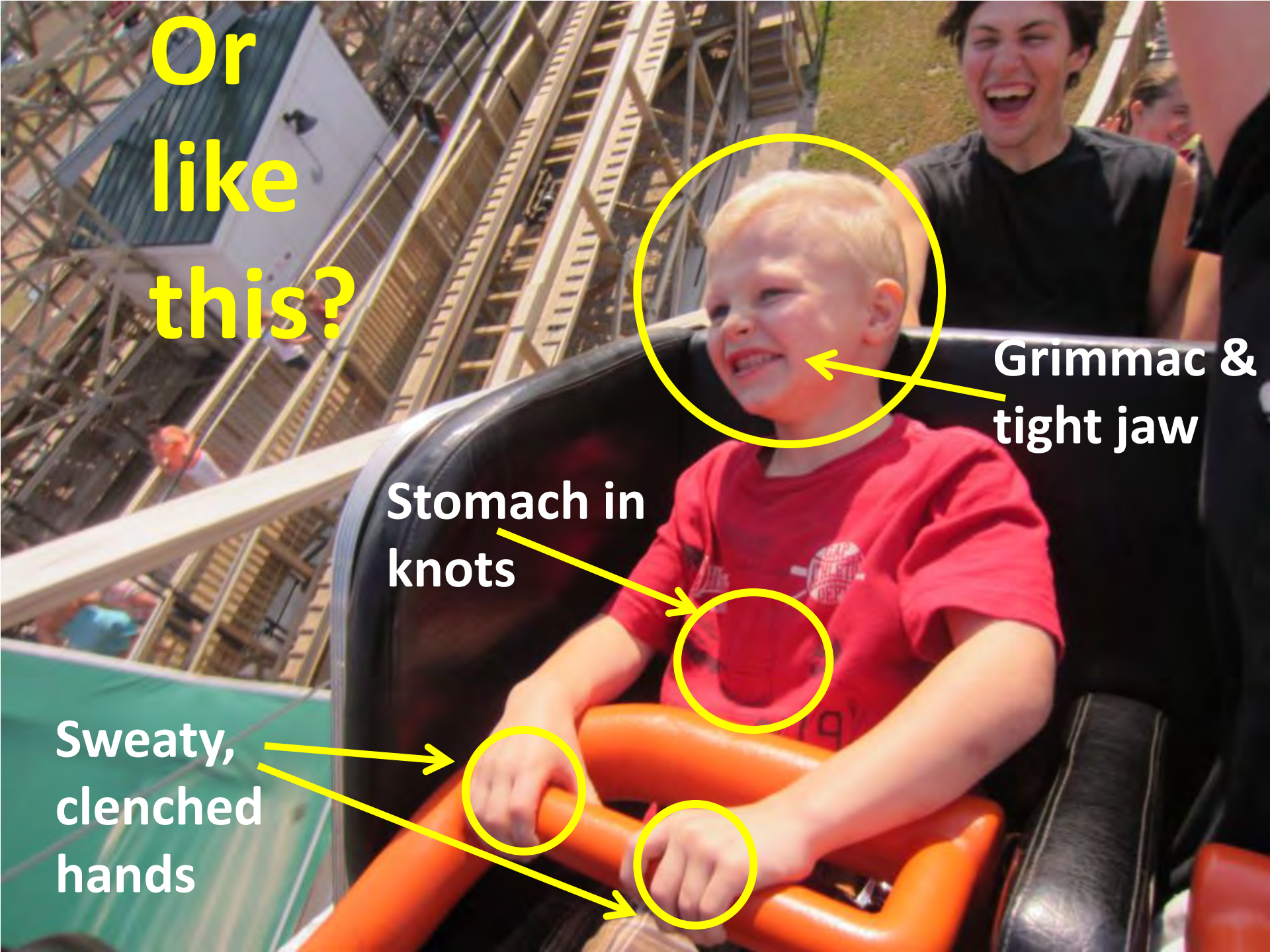
**Do you feel
like this?**

**Or
like
this?**

**Grimmac &
tight jaw**

**Stomach in
knots**

**Sweaty,
clenched
hands**

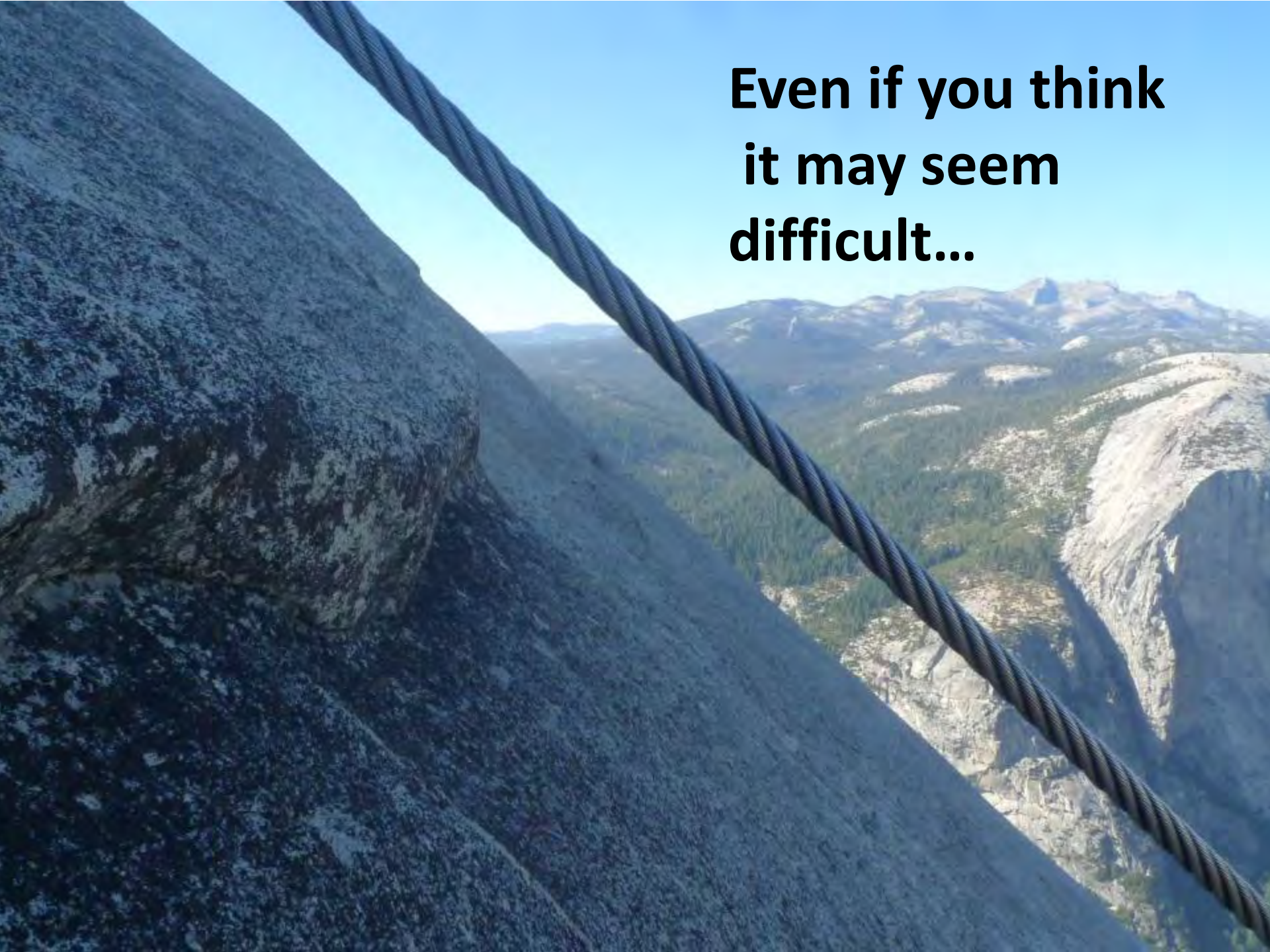




If you are
awaiting your
first SESC
Audit
experience

Program
approval can
be achieved!

**Even if you think
it may seem
difficult...**







Water Resources



- **Protect and Monitor**
 - 4 Great Lakes
 - 11,000 Inland Lakes
 - 36,000 river miles
 - 5 million acres of wetlands
 - 70,000 acres of coastal dunes

For swimming, fishing, drinking water and aquatic ecosystems.

Audit Timeline - Getting started with the SESC Audit

MDEQ conducts SESC audits approximately every 5 years:

1. DEQ calls to schedule date and time
2. DEQ sends a digital questionnaire and audit confirmation email requesting the following items:

Digital Questionnaire Information Requested

- a) Completed digital questionnaire
- b) The approved APA SESC Operating Procedures
- c) Inspection Form/Checklist
- d) Sample copies of SESC plans for maintenance projects
- e) Written guidelines or procedures used in lieu of plans for maintenance projects
- f) Sample bid language used for enforcing Part 91 with contractors,

Audit Timeline Cont....

3. APA staff complete digital questionnaire, collect requested submittals, and return to DEQ (preferably digitally).
4. DEQ staff will review the contents of submittals and may try to inform APA of necessary changes prior to the field visit.
5. Scheduled field visit (typically 1 day)
 - a) Review digital questionnaire
 - b) Review files (permits, plans, inspections, etc.)
 - c) On-site visits/inspections
 - d) Audit can also include inspections performed between audits.

Audit Timeline Cont....

6. DEQ will compile the audit results and send a letter indicating one of the following:
 - a) APA Approval
 - b) Violation Notice (includes required changes and gives 60 days to correct)
7. DEQ and APA will work together to make any changes necessary in ~60 days.
8. DEQ sends a preliminary Procedures approval
9. APA commissioners pass SESC Procedures
10. DEQ sends official SESC Procedures approval
11. DEQ will send one of the following letters:
 - a) APA Approval
 - b) Proposal to Disapprove

Audit Contents

(Sec. 9110 Authorized Public Agencies)

1. SESC Operating Procedures
2. Funding
3. Staff Training
4. Inspections
5. Compliance & Enforcement
6. SESC Plans
7. Site Conditions

▪

Audit Review Items:

1. SESC Operating Procedures

- The SESC Operating Procedure is a document describing the practices & methods used by an APAs to meet Part 91 SESC Program requirements.
- APA must have a current, adopted, and MDEQ approved procedure.

Audit Review Items:

2. Funding

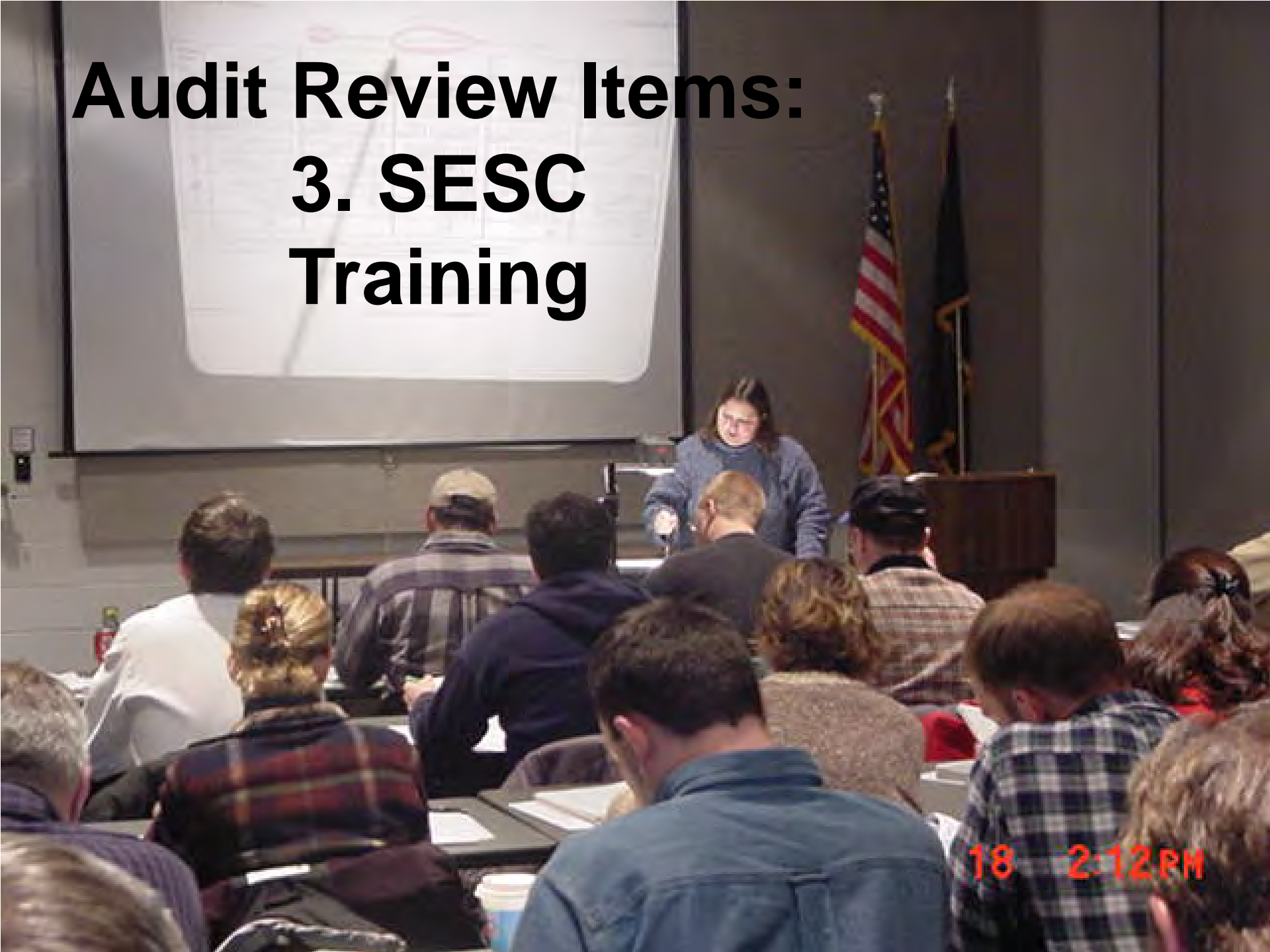
A yellow CAT 324D L excavator is shown in a wooded area, working on a dirt embankment. The excavator's arm is extended, and it is holding a large, cylindrical hydraulic cylinder. The background consists of a dense forest of tall, thin trees. The excavator has "CAT" branding on its arm and "324D L" and "431" on its side.

- MDEQ considers information provided by the APA about funding

- Is the funding adequate to effectively administer and enforce the program?

Audit Review Items:

3. SESC Training



18 2:12PM

Training is required for **all** individuals
with decision-making authority

OPTION 1 – SESC & Construction Site Storm
Water Operator **Inspector Training** allows staff to:

- Inspect sites to determine compliance with the SESC Plan
- Document Inspections
- Identify SESC measures that are failing or require maintenance
- Identify areas where additional measures **MAY** be needed
- Report Findings to the landowner or Comprehensive Certified individual for the APA

Example: Inspectors Report

- **Check Dam on the plan is installed**
- **Installed incorrectly**
- **Needs Maintenance**
- **May need additional check dams**





Example: Inspectors Report

- Measures Installed per SESC Plan**
- No action required**
- Inspect again after the first rain**



Example: Inspectors Report

- **Long, gradual ditch slope is eroding and discharging sediment to stream**
- **No SESC measures identified in the SESC Plan**
- **Additional measures are needed immediately to prevent further discharge**
- **Inspection report goes to Comprehensive Trained staff for further action**

Training is required for all individuals with decision-making authority

OPTION 2 – Comprehensive SESC Training allows staff to:

- *** All Comprehensive SESC Trained Staff must first receive their Inspector Training Certificate
- Review and/or design SESC Plans.
- Make determinations to pursue enforcement action for non compliance with Part 91 & Rules
- Make SESC Plan updates for the APA
- Review and/or design SESC measures or make determinations that design assistance is needed.

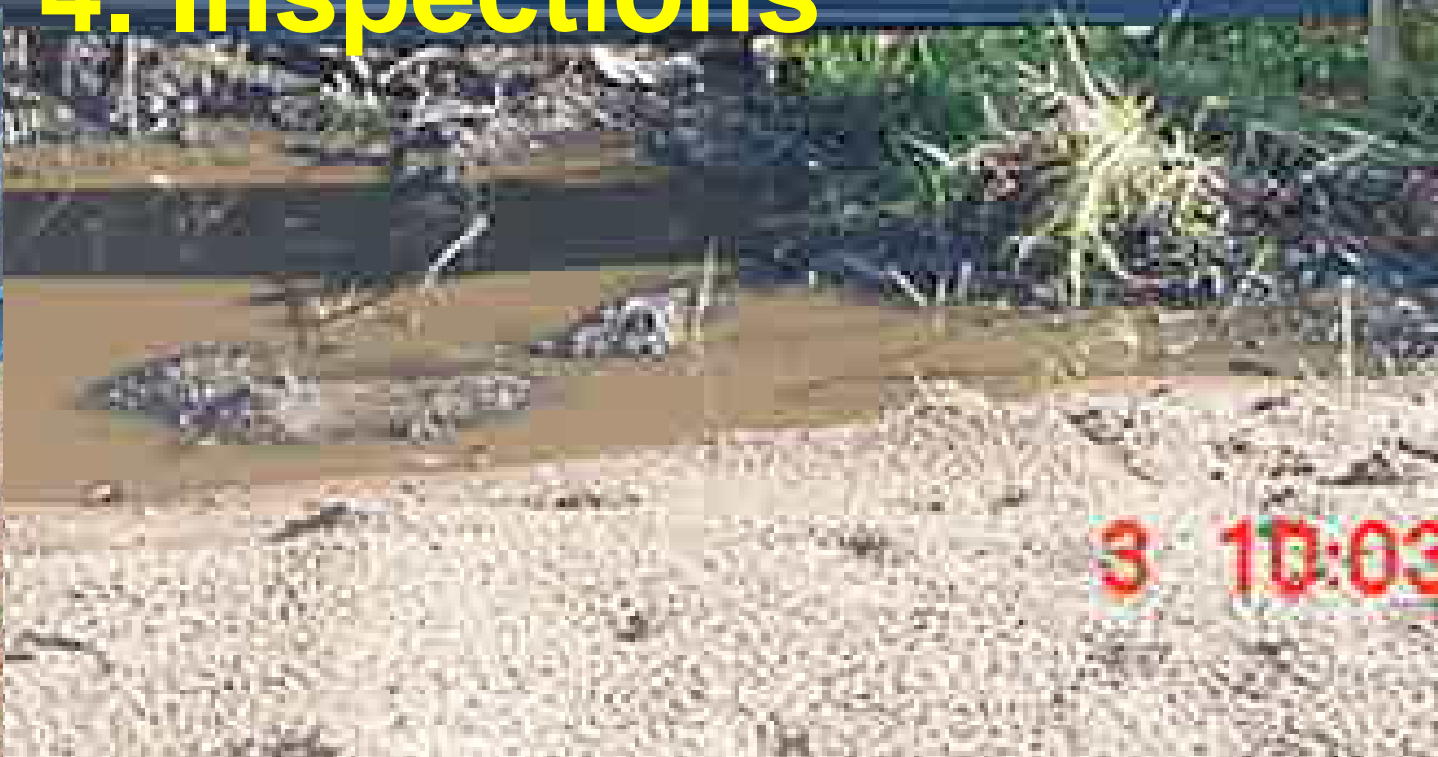


Alternate Example: Inspectors Report from Comprehensive Trained staff

- Ditch slope length longer/left open longer than anticipated, and eroding from light**
- No SESC measures identified in the SESC Plan and additional measures are needed.**
- Action now: Install 3 combination check dams and sediment traps to prevent discharge.**
- Actions completed faster, easier, and Inspection report goes to the boss and file.**

Audit Review Items:

4. Inspections



We tend to hear about the big problems right?





30 1:57 PM

**Without Inspections this
becomes a discharge violation**





**Without
Inspections:
Inadequate
SESC Plan
and
inadequate
SESC
measures are
not identified
and
become...**



**A discharge
Violation**

**2 weeks later
After a rain**

Inspection Frequency

APAs must conduct adequate site inspections to assure minimization of soil erosion and off-site sedimentation.

- Inspections must be documented in order to be considered complete inspections during the SESC audit.

Soil Erosion Inspection Log

Project Name or Description:

Page ____ of ____

NPDES Number: _____

Date: _____ Time: _____ Certified Operator: _____ Operator #: _____

Reason for Inspection: Weekly Inspection Inspection After Storm Water Runoff

Observations: _____

Corrective Actions Taken/Needed: _____

Signature: _____ Operator Number: _____

Print Name: _____

REMEMBER TO REFER TO THE SITE PLANS OR SKETCH

Considerations for Site Prioritization

- Size of disturbance
- Time length of disturbance
- Proximity to surface waters
- Direct Connection to surface waters (pipes channels)
- Soil types
- Slopes
- Permittee historical performance
- Setback from property boundaries
- Others?

Minimum Inspection Frequency SESC

- All earth changes greater than 1 acre without a discharge to waters of the state OR within 500 feet of a lake or stream
 - A starting goal is Inspections by a SESC certified inspector an avg. of 1X/month OR more frequently depending on the likelihood of an off-site sediment discharge.
 - An APA may choose to develop a DEQ approved site prioritization matrix that defines an appropriate inspection frequency based on site risk factors.

CSW minimum frequency:

- Earth Changes 5 acres or greater with a discharge to surface waters of the state requires a Construction Site Storm Water Notice of Coverage (NOC), AND
- Earth Changes between 1 and 5 acres with a discharge to surface waters of the state is covered by Permit-by-Rule (PBR)
 - Both must be...
 - inspected by a Certified Storm Water Operator (CSWO) at least once per week and within 24 hours of a precipitation event resulting in a discharge from the site.

Inspection Quality

**Other Minimum Items:
Observations of the site &
SESC measure conditions**

- **Compliance w/SESC Plan**
- **Needed Corrective action**
- **If previous corrections were completed**
- **Date, inspector name, and weekly or rain event insp.**



Audit Review Items:

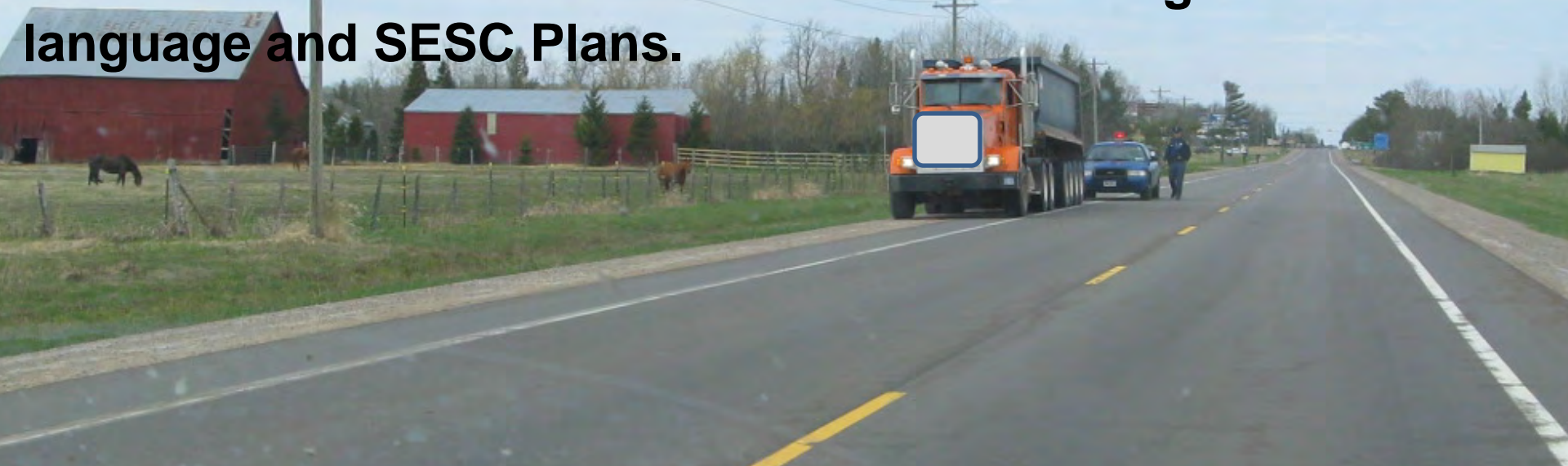
5. APA Compliance and Enforcement

APAs are responsible for Part 91 compliance on projects in their right of way conducted on their behalf.

The APA is responsible for their contractor's Part 91 violations and their violations of APA SESC Procedures.

As an APA you cannot issue your own permit that places Part 91 responsibility on another entity.

Most enforcement actions are dealt with through contractual language and SESC Plans.



Audit Review Items: 6. SESC Plans

Rule 1703 SESC Plan Requirements:

- a) A map or maps at a scale of not more than 200 feet to the inch.
- b) A legal description of the site.
- c) A site location sketch that includes proximity of any proposed earth change to lakes and streams.
- d) Predominant land features.
- e) Contour intervals or slope description.
- f) Soil survey or a written description of the soils types of the exposed land area contemplated for the earth change.
- g) A description and the location of the physical limits of each proposed earth change.

Rule 1703 SESC Plan Requirements Con't:

- h) A description and the location of all existing and proposed on-site drainage and dewatering facilities.
- i) The timing and sequencing of each proposed earth change.
- j) The location and description for installing and removing all proposed temporary SESC measures.
- k) A description and location of all proposed permanent erosion and sedimentation control measures.
- l) A program proposal for the continued maintenance of all permanent SESC measures that remain after project completion, including the designation of the person responsible for maintenance.

Audit Review Items: 7. Site Conditions

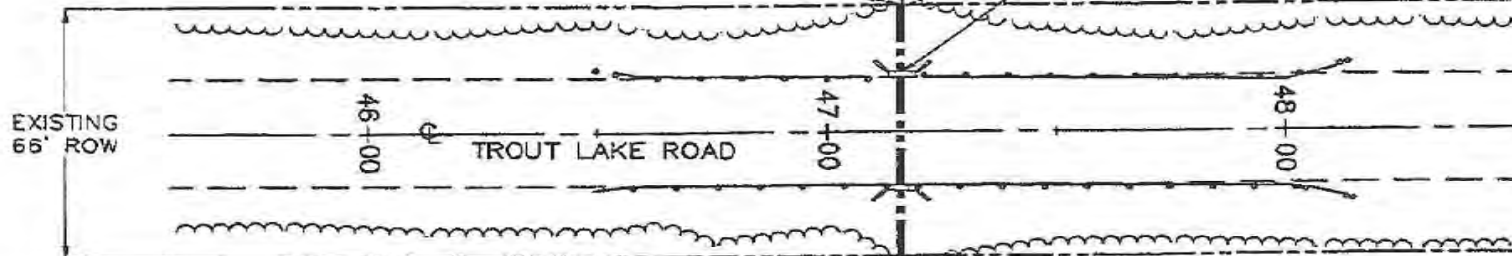
A woman in a dark blue jacket and light blue jeans stands on a sandy bank next to a stream. The stream is dark and has some debris in it. The background is a forest of tall trees. The text 'WHERE IT ALL COMES TOGETHER' is overlaid on the bottom right of the image.

**WHERE IT ALL
COMES TOGETHER**



PROPOSED 66', CULV, PRECAST CONC
 BOX, 15 FOOT BY 6 FOOT, WITH MITERED ENDS
 INLET ELEV = 92.4
 OUTLET ELEV = 92.3

EXISTING 30', CULV, CONC BOX, 15 FOOT BY 5 FOOT
 WITH HEADWALLS AND WINGWALLS.
 INLET ELEV = 92.4
 OUTLET ELEV = 92.3



EXISTING STREAM BED
 WIDTH: 10 FOOT

Part 301 Permit & Plans

CULVERT SITUATION PLAN

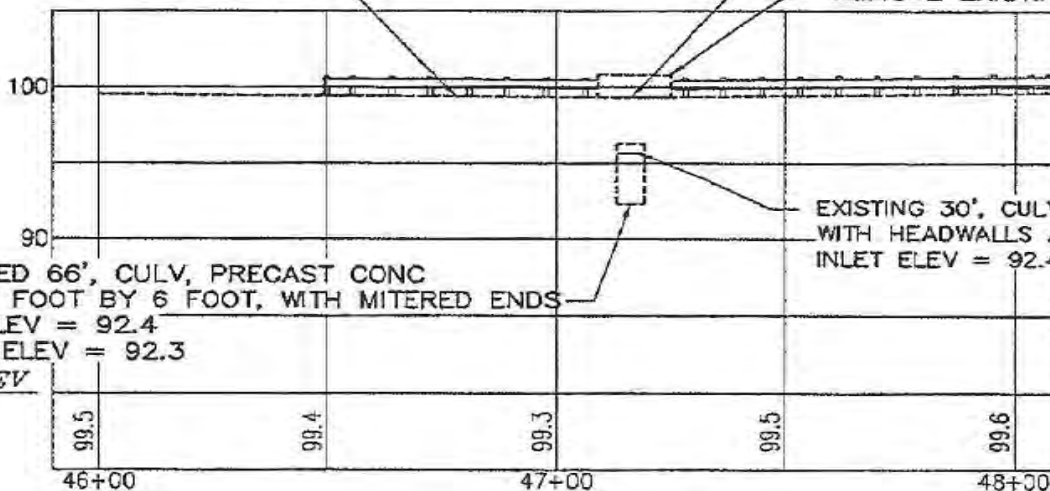
NO SCALE

LOCATIONS:

EXISTING AND PROPOSED
 CENTERLINE

EXISTING & PROPOSED
 LOW POINT ELEV = 99.3

REMOVE EXISTING HEADWALLS & GUARDRAIL



EXISTING 30', CULV, CONC BOX, 15 FOOT BY 5 FOOT
 WITH HEADWALLS AND WINGWALLS
 INLET ELEV = 92.4


PROPOSED 66', CULV, PRECAST CONC
 BOX, 15 FOOT BY 6 FOOT, WITH MITERED ENDS
 INLET ELEV = 92.4
 OUTLET ELEV = 92.3

DATUM ELEV
 80.00

ELEVATION DATUM
 IS LOCAL

CENTERLINE PROFILE

NO SCALE

A photograph of a construction site. In the foreground, a large, crumpled grey filter bag lies on the ground. Behind it, a black tarp is spread out. In the background, a concrete foundation for a structure is visible, surrounded by green grass and trees.

h.) A description and the location of all existing and proposed on-site drainage and dewatering facilities.

Dewatering to a filter bag

JUN 15 2006

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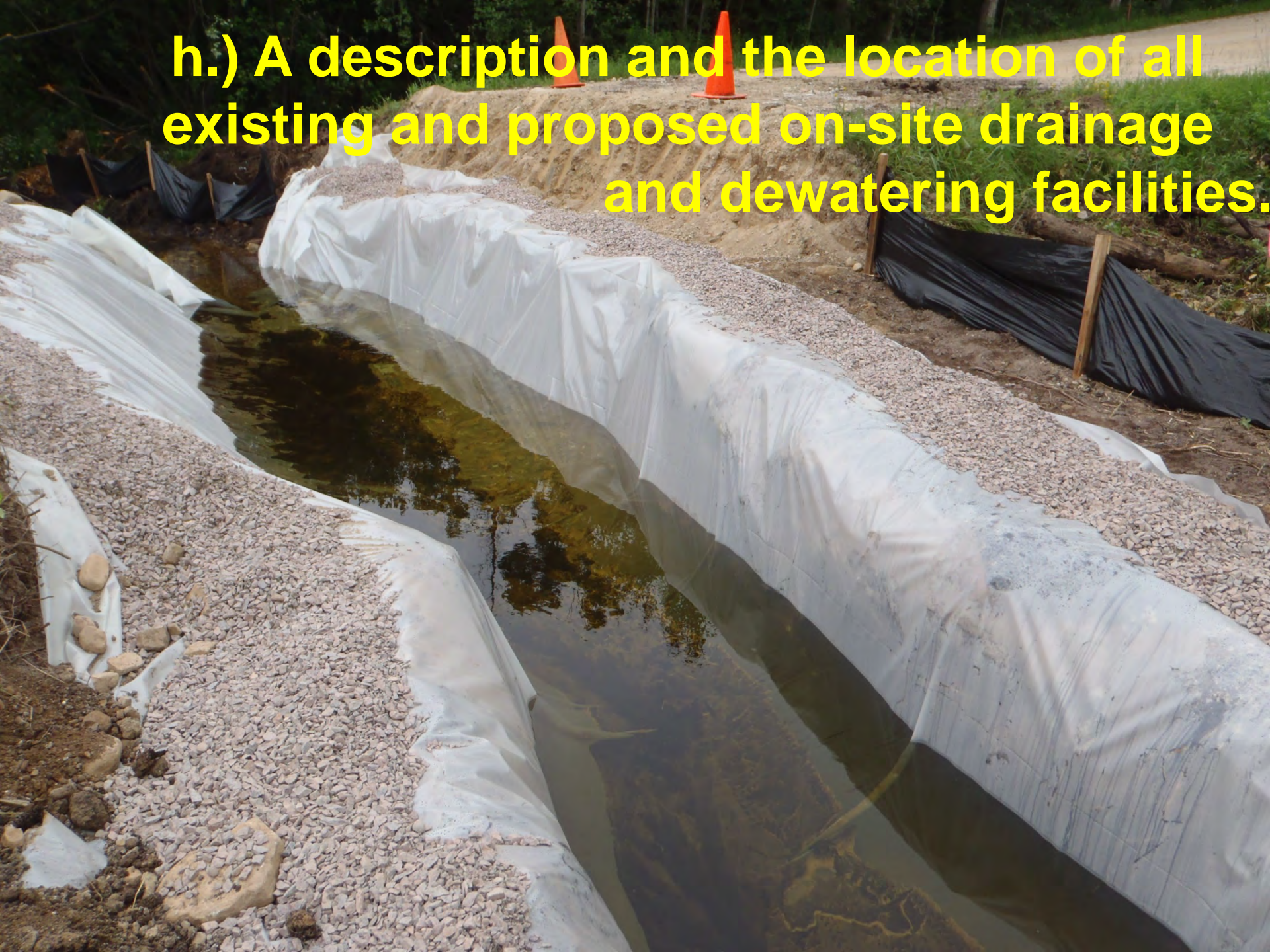
**Diversion /
Temporary
Stream
Channel -
Stabilize it
First**

NOV 14 2007

h.) A description and the location of all existing and proposed on-site drainage and dewatering facilities.



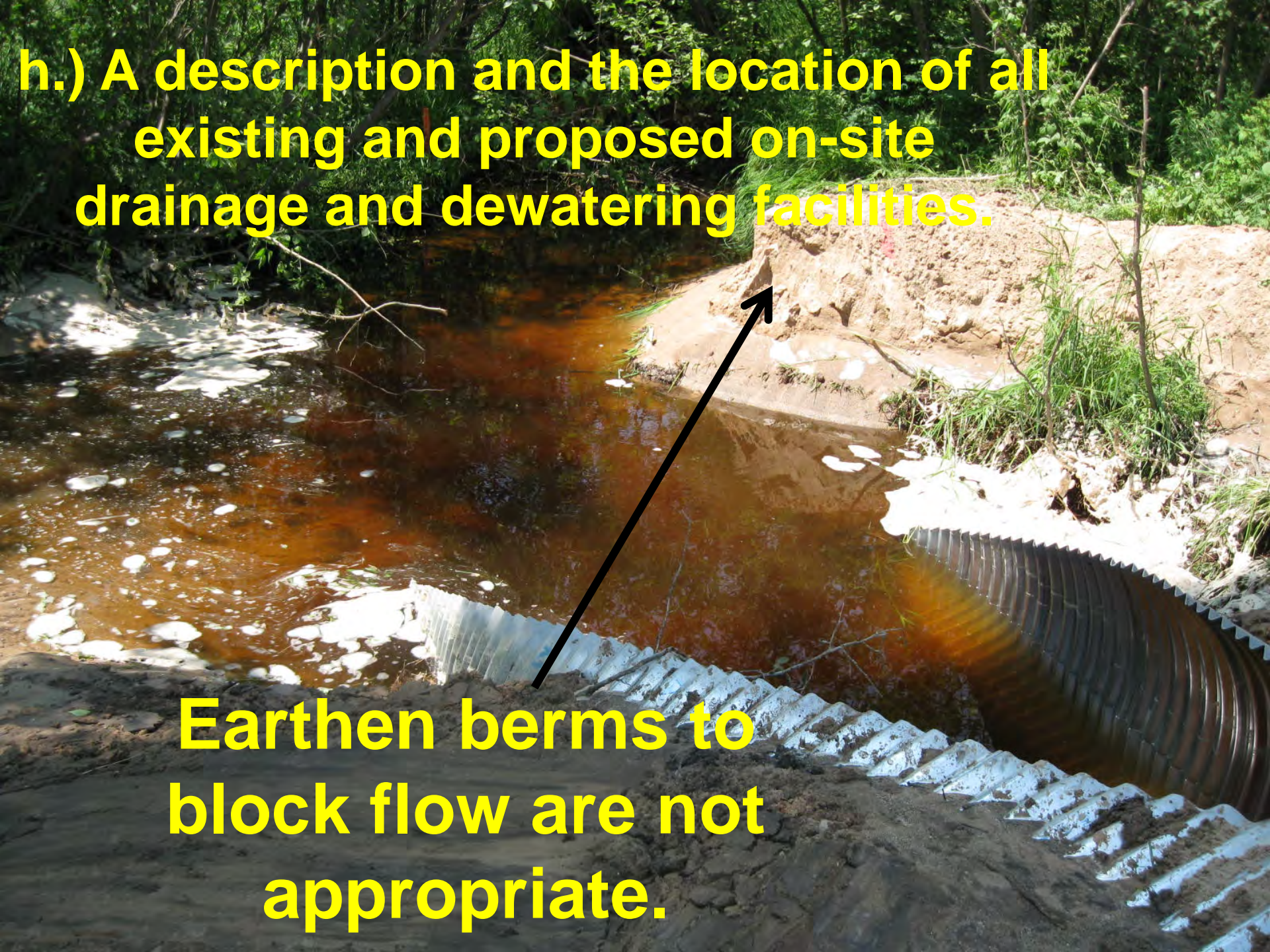
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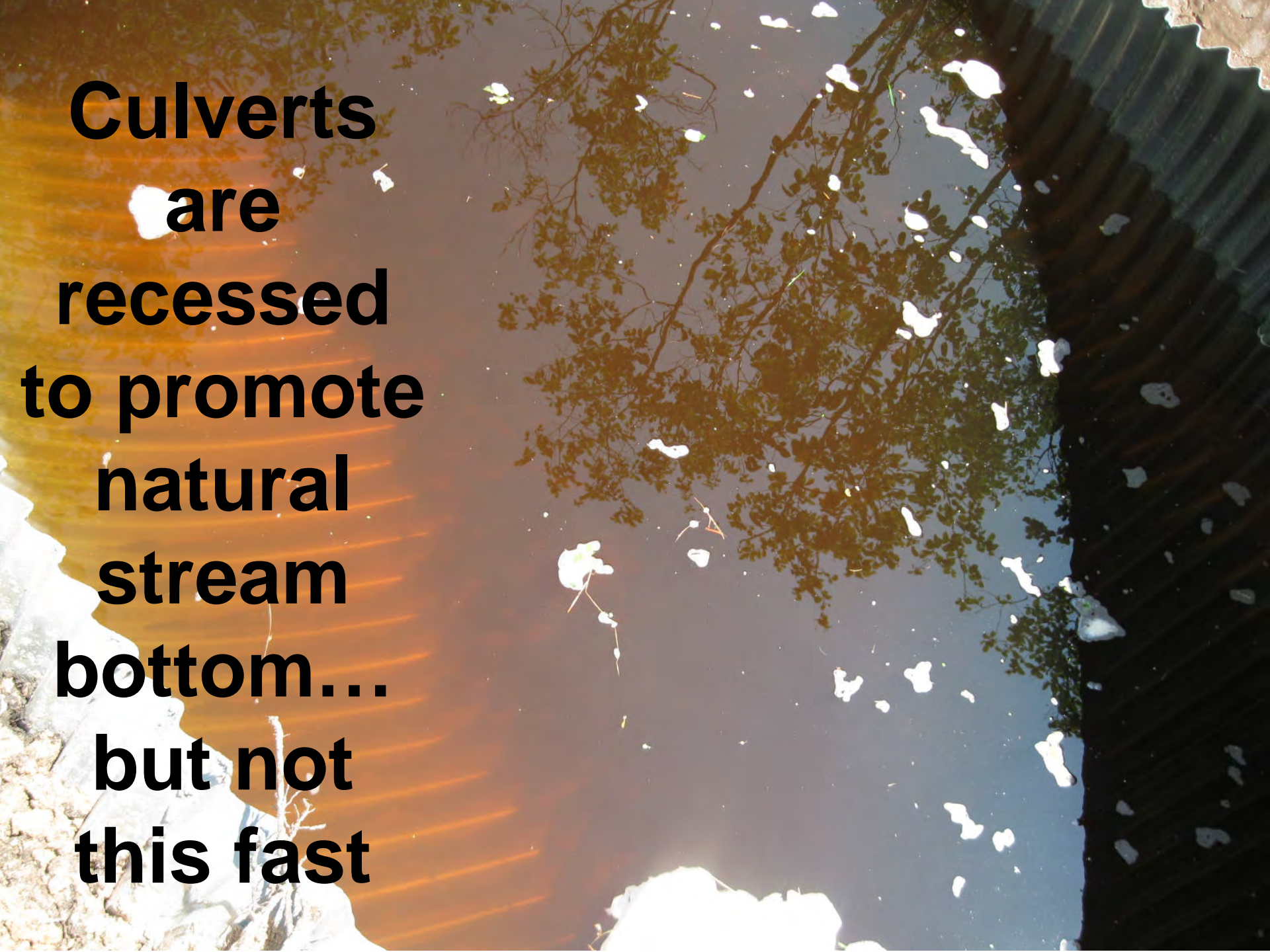


h.) A description and the location of all existing and proposed on-site drainage and dewatering facilities.



Earthen berms to block flow are not appropriate.

**Culverts
are
recessed
to promote
natural
stream
bottom...
but not
this fast**






j) The location and description for installing and removing all proposed temporary SESC measures.

j) The location and description for installing and removing all proposed temporary SESC measures.



k) A description and location of all proposed permanent erosion and sedimentation control measures.





k) A description and location of all proposed permanent erosion and sedimentation control measures.

j) The location and description for installing and removing all proposed temporary SEESC measures.



For those of you who have been through the process once or twice...our water resources are worth maintaining the same standards between audit cycles.

I might play Later...

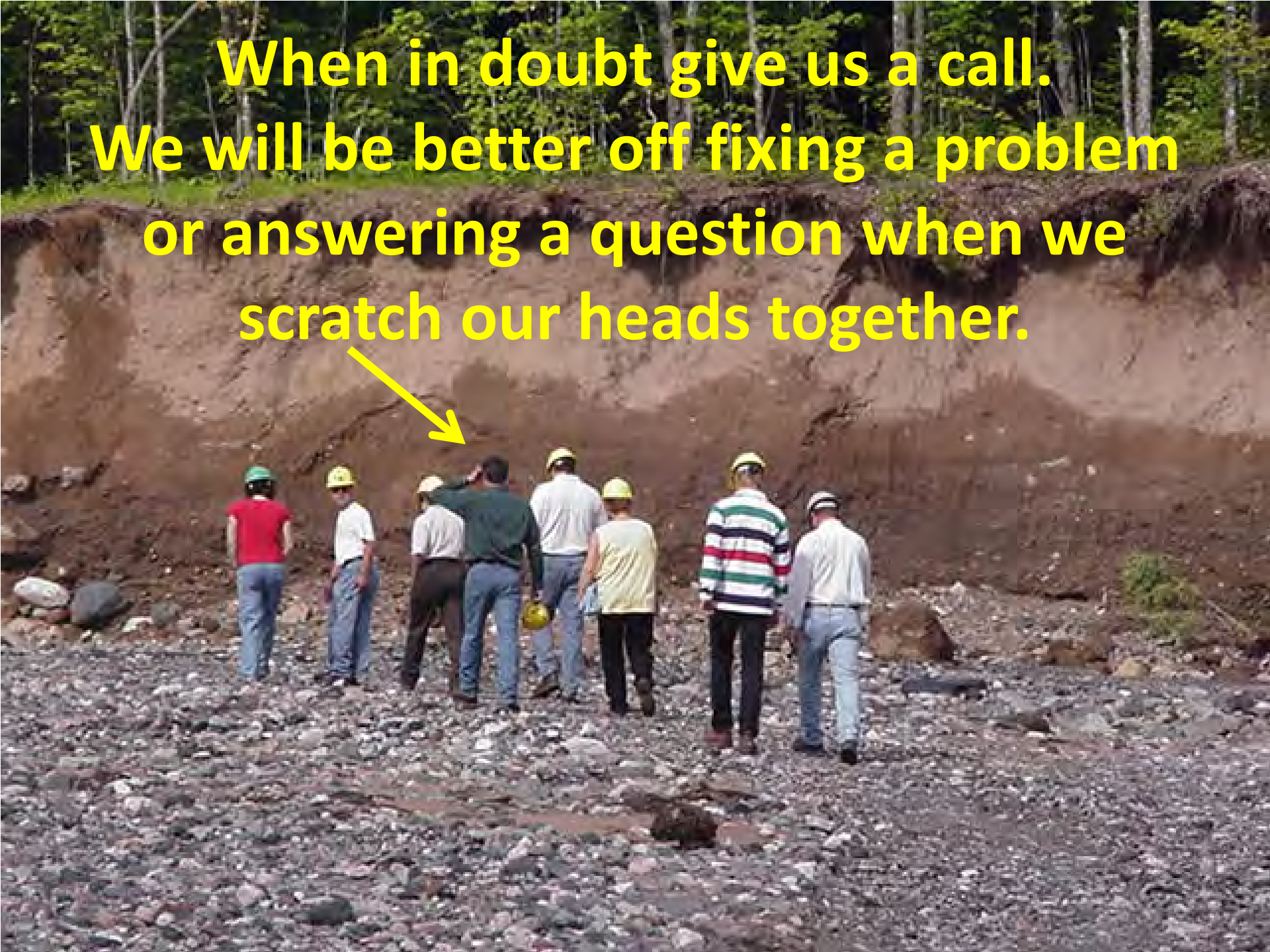


A scenic view of a rocky shoreline. The foreground shows dark green water with ripples. In the middle ground, a large, reddish-brown rock formation features a prominent cave entrance. The rock surface is layered and textured. Above the rock, a dense forest of green trees and shrubs covers the hillside. The sky is bright and clear.

Between Agency Audits:

- DEQ continues NOC site inspections, SESC plan & file evaluations
- Goal to visit agencies at least once every 3 years for site inspections.


**When in doubt give us a call.
We will be better off fixing a problem
or answering a question when we
scratch our heads together.**



**Soil Erosion and
Sedimentation
Control,
Construction
Storm Water, and
Non Point Source
Pollution Control
Programs**

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**Soil Erosion and
Sedimentation
Control, Construction
Storm Water, and Non
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