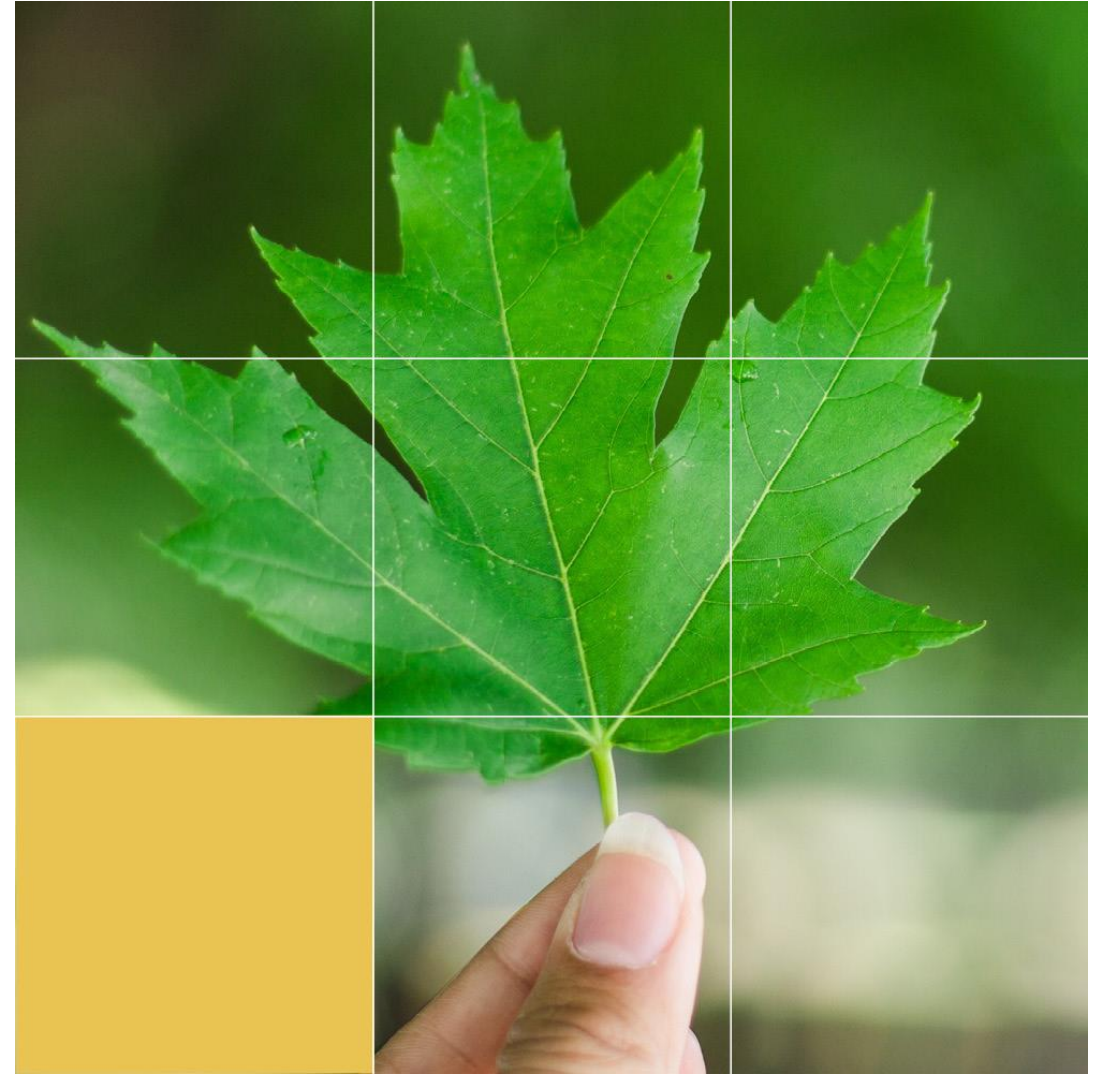


Climate Change and Damage Prevention

Adapting Damage Prevention
programs to respond to
climate related disasters

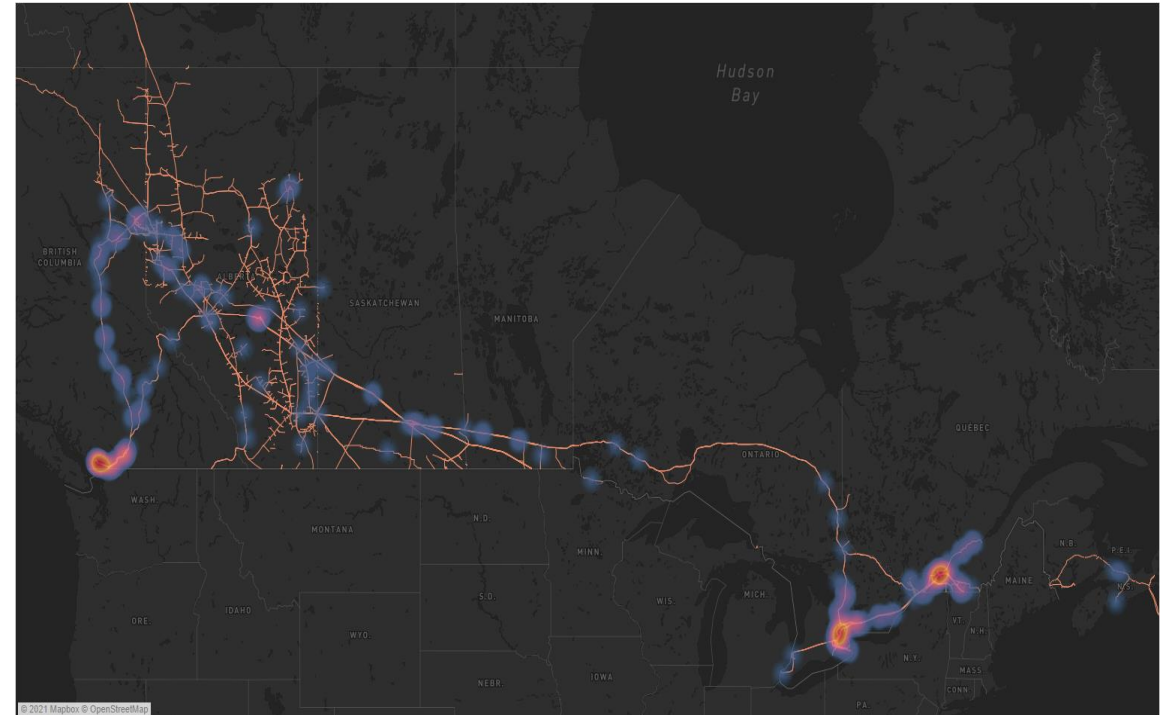
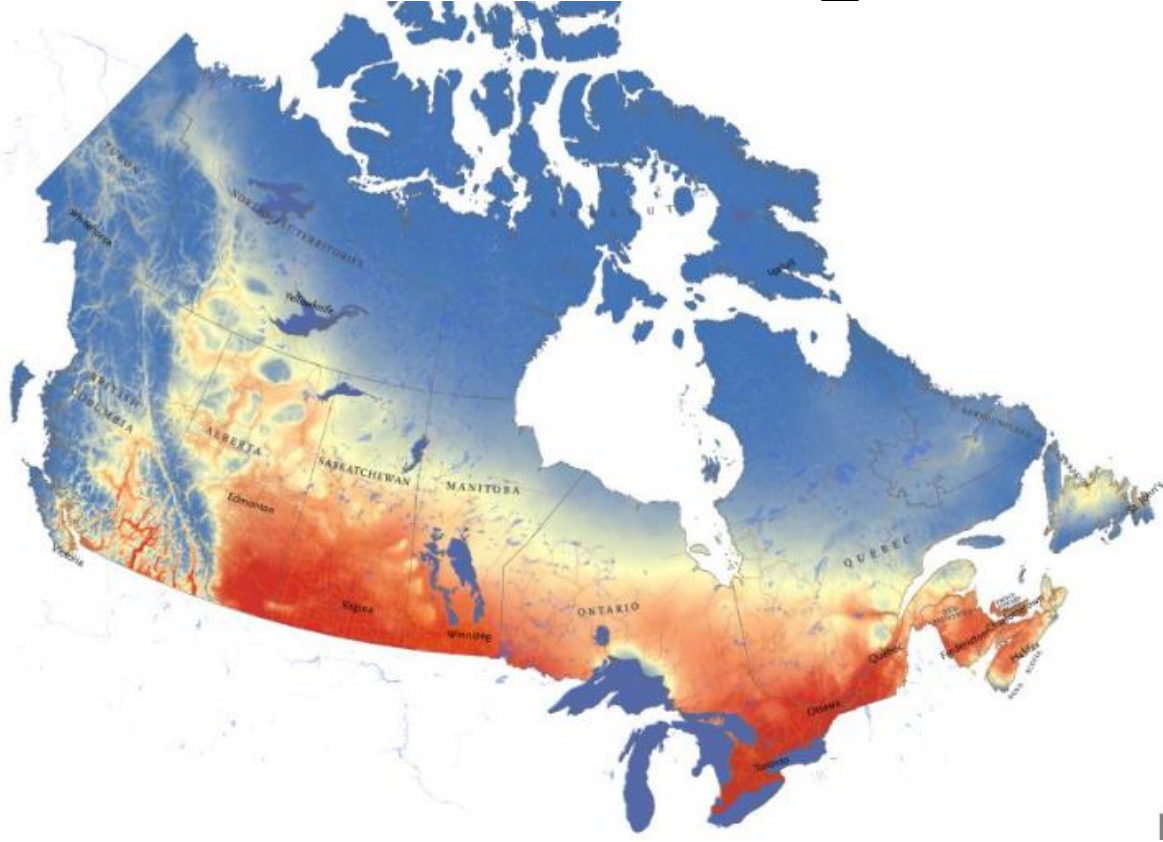


We'll discuss:

- A little shock and awe
- What to expect and look out for
- Suggestions for managing & mitigating
- Regulatory requirements
- Preventive actions related to DOC from SA-2022-01



Climate change & CER regulated facilities







ORCGA®



2023 ORCGA DAMAGE PREVENTION SYMPOSIUM



The aftermath...



Hazards

- Landowners hire **new** contractors or DIY
- Decks, sheds move
- Buildings demolished
- Fences down
- Infrastructure floating
- Infrastructure hanging
- Pipe exposure



Company considerations

- Emergency locates
- Increased staffing
- Depth of cover impacted?
- Increase ground & aerial patrols
- Signage down
- Communications plan

Consider

- Debris removal - piled on ROW
- Heavy vehicles (full dump trucks) driving across or along the ROW
- Backhoes dig trenches to drain water
- Decreased cover over pipelines



Company Actions

Prepare for:

- Emergency locates
- Providing written consent for:
 - Vehicle crossings
 - Ground Disturbance
 - Construction/removal of a facility
- Weight Load Calculations



Floods/mudslides can cause compaction & rutting



Prepare for:

- Deep Tillage to help reduce compaction on agricultural land
 - Rippers up to 90 – 120 cm (36"-48")

Snowstorm considerations

- Snowplows
- Heavy dump trucks
- **Weight Load Calculation**



Wildfire considerations

- Pipeline Crossings by fire suppression equipment
- Planned ignitions: Vehicles drive on pipeline Right-of-Ways when ignite fire in a controlled burn



- Fire engines
- Excavators / backhoes
- heavy dump trucks
- Skidsteers
- Logging trucks

BC One Call Process: If **URGENT – Emergency Locate**



- **Emergency Locate** request in these circumstances only:
 - 1.If you're **on site or en route**, **CALL 1-800-474-6886**
 - 2.Select **Option # 1 Emergency**
 - 3.Tell One Call agent you're placing an **Emergency “Wildfire – Pipeline Crossing” Locate Request**
- **OR** if on site tomorrow, place a **Priority Call** (website or call)
 - Priority is asking for the information right away
 - Response time is less than the normal 3 days
 - No guarantee as companies still have 3 days

Extraordinary circumstances may call for extra measures;

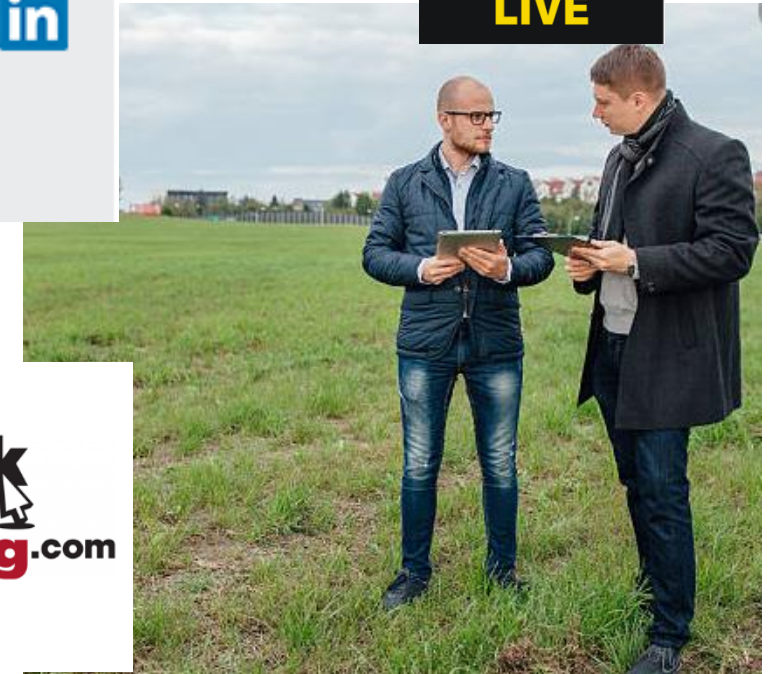
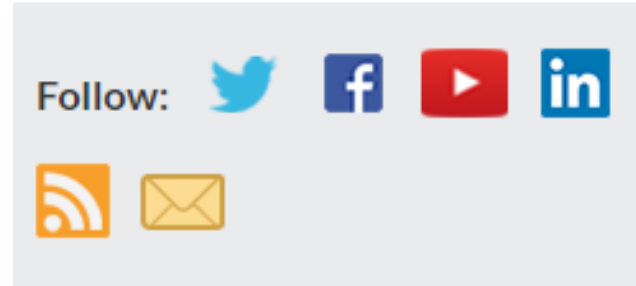
What can companies do?

Increase your media presence

- regular media
- social media

More public awareness activities:

- Face to face
- Knock & drop awareness packages



Extraordinary circumstances may call for extra measures; What can companies do?

- EOCs – work with agencies & commodity groups
- Key Messages to landowners, CBYD messaging specific to the current circumstance
- Contact local, provincial & federal agriculture associations to get word to members
- Work with disaster recovery groups that remove debris

Extraordinary circumstances may call for extra measures;
What can companies do?

Understand finance/grant process – indicator when landowner may start work

Having an understanding of provincial and federal grant processes and timelines help you plan for resources for:

- Issuing consent
- Locates
- Site supervision personnel
- DOC surveys

CER Regulatory requirements

Section 94 of the CERA – take all reasonable care to ensure safety & security of persons, regulated facilities, abandoned facilities and the protection of property and the environment.

Section 6.5 of the OPR to establish and implement effective management system processes relating to hazards and risks. With respect to DOC, these processes include:

- identifying and analyzing hazards and potential hazards, such as those associated with agricultural activities;
- evaluating risks, including risks related to normal and abnormal operating conditions;
- developing and implementing controls to prevent, manage and mitigate hazards and for communicating those controls to anyone who is exposed to the risks; and
- the internal and external communication of information relating to safety matters.

CER Regulatory requirements related to DOC

Section 47.2 of the OPR Damage Prevention Management System – companies must develop, implement and maintain Damage Prevention Program

- These programs must include public awareness measures that address work safety near pipelines, ground disturbances and the operation of vehicles or mobile equipment across pipelines.

Section 7 of the DPR-O - Companies must identify specific locations where the operation of vehicles or mobile equipment across pipelines for agricultural purposes could impair the pipeline's safety or security.

- Companies must also notify landowners and land users & employees of those locations

SA 2022-01 Depth of Cover and Ag Activities

Preventive actions related to DOC

- Periodically engage landowners and land users to obtain updates on the following:
 - the activities being conducted on or near pipelines;
 - the vehicles and/or equipment being used for crossings, if any; and
 - depth of cover issues and changes in the land that may have been observed on pipeline right-of-ways (**ROWs**);
- Monitor depth of cover on ROWs and be knowledgeable of the activities and conditions that may reduce depth of cover over time, including natural disasters such as floods, fires and mudslides;
- Conduct and document periodic pipeline patrols. Patrol observations should include conditions impacting depth of cover on ROWs. *Reporting on an ad hoc basis or only by exception does not demonstrate monitoring conditions over time;*

SA 2022-01- Preventive actions related to DOC

- Best practice: taking depth measurements at the lowest point of cover (bottom) and on both shoulders of drainage features when conducting depth of cover surveys;
- Where inadequate depth of cover is identified, immediately prevent physical damage to the pipeline and notify landowners and appropriate third parties;
- Periodically evaluate effectiveness of depth of cover procedures, particularly with respect to confirming locations where agricultural activities take place; selecting methods for confirming depth of cover in such areas; identifying high-risk crossing locations; and notifying landowners and third parties of these locations; and
- Ensure adequate staffing, resources, and support for damage prevention programs.



Canada Energy
Regulator

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Questions?

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Or you can email the CER Damage Prevention team at Dpinfo@cer-rec.gc.ca

For more info, please come and see us at our booth!

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Please fill out your survey!

Open the **Attendee Hub App**,
tap on **Agenda** and then tap on
Climate Change and Damage Prevention
and complete the survey for this session.

OR

**If you are unable to download the app, a paper
survey is available.**