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Overview of Spills Management and Emergency Response Programs in the railway sector

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Oversight of Rail Safety in Canada

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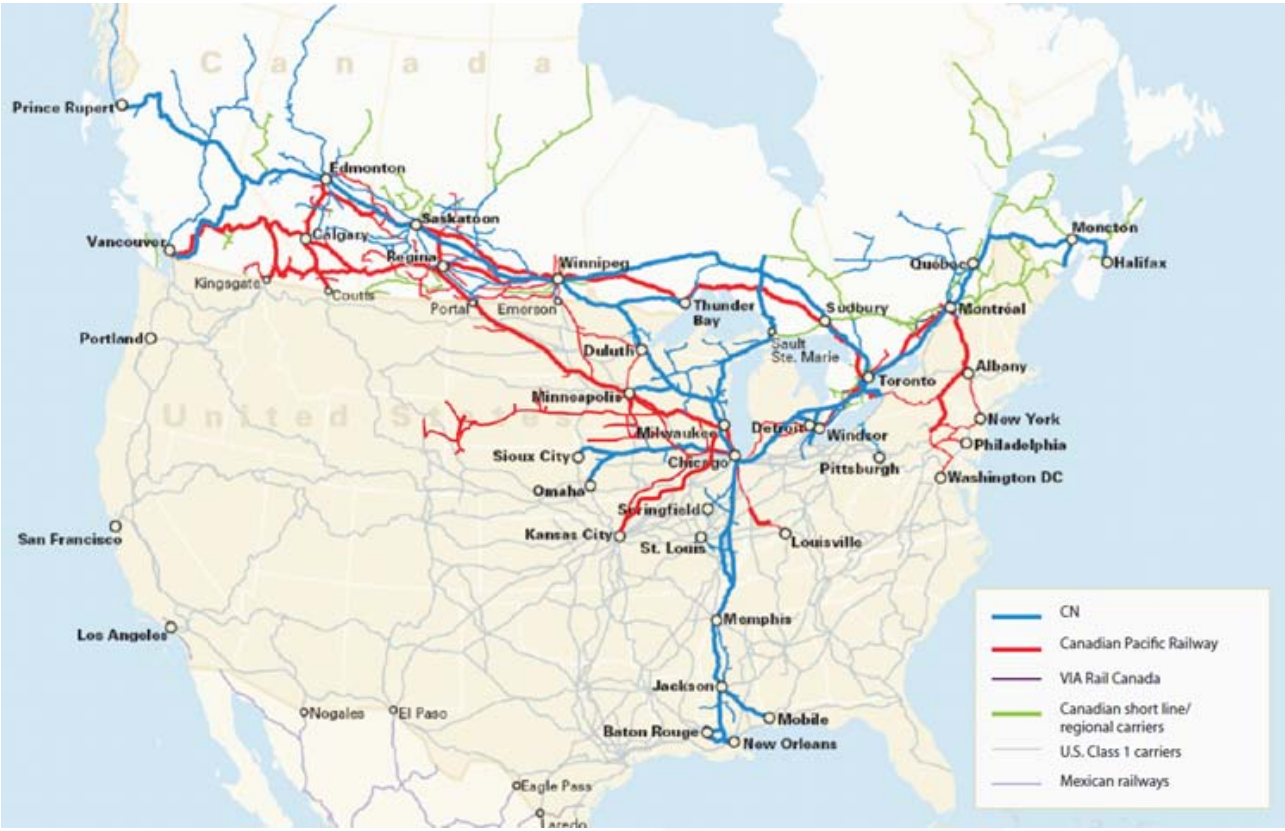
- Comprehensive federal and provincial regulatory frameworks in place.
- 35 railways in Canada, including Class I carriers, are regulated by federal law.
- The *Transportation of Dangerous Goods Act* applies to **<u>all</u>** railways in Canada.



- Transport Canada, the Canadian Transportation Agency, and the Transportation Safety Board of Canada provide oversight of the federal regulatory framework.

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Performance & Outcomes

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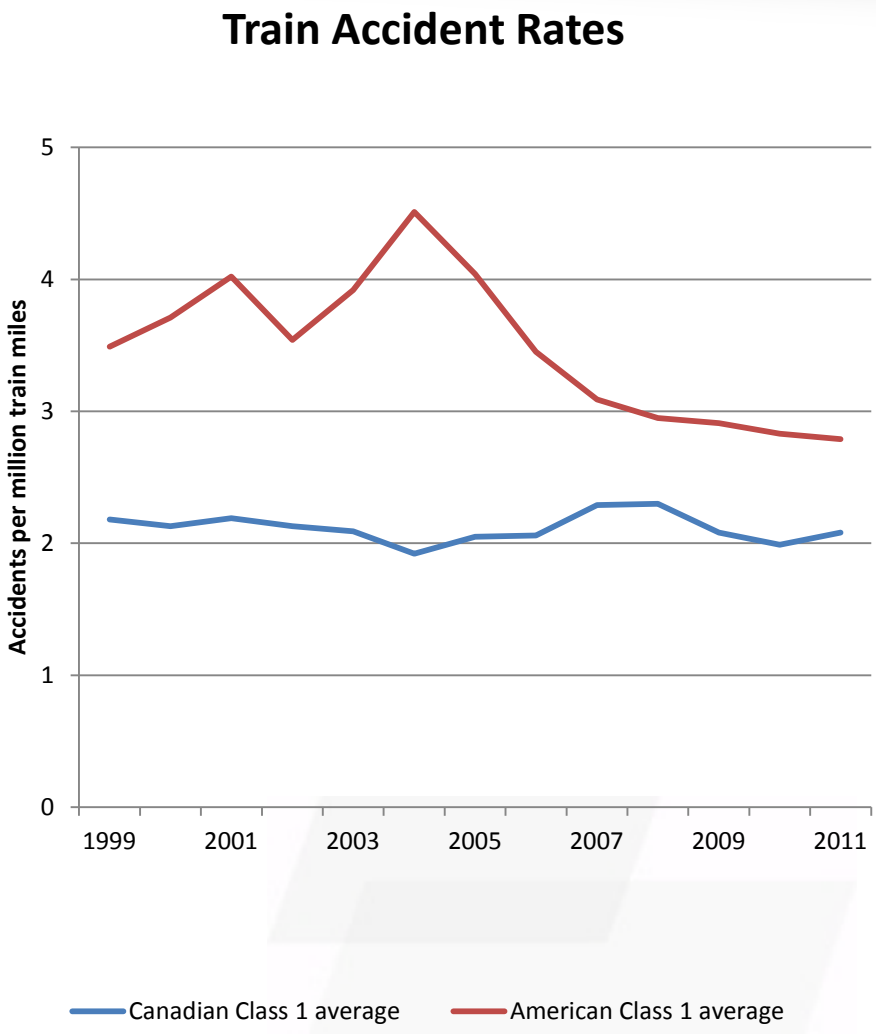
- Canada's rail system is a safe way to transport dangerous goods.
- Millions of carloads of essential goods such as heating oil, gasoline, jet fuel move by rail every year.
  - 99.997% of them are delivered without incident.
- The majority of train accidents occur in yards and do not result in the release of contaminates to the environment.
- The small number of incidents that result in a release are all remediated appropriately.



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Industry Highlights

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- Maintaining and enhancing a safety culture is “Job 1” for rail.
- Employees receive targeted safety/job training.
- Our monitoring/maintenance (SMS) & emergency response protocols are considered first class.
- Railways invested $3B in 2012:
  - Fleet modernization, rail ties and track replacement and improved lights and signals.
- Railways are responsible for expenses associated with Spill Prevention, Readiness, Response and Mitigation.

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RAC Programs & Services (2012)

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For Railways

- 31 inspections and audits.
- 34 training sessions.

For Producers and Shippers

- 54 training sessions and/or inspections.

For Emergency Responders

- Training offered through the Justice Institute of BC.
  - 280 trained in the last 4 yrs.
- Dangerous Goods Team, on call 365/24/7 and supported 6 events.

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Outreach - TransCAER®

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Responsible Care® Our commitment to sustainability. | Gestion responsable™ Notre engagement envers le développement durable.

- CN and CP are Responsible Care® members certified by the American Chemical Council and the Chemical Industry Association of Canada.
- We are active participants in the TransCAER® initiative – a program to prepare communities to respond to potential DG incidents.
- Active members of the BC TransCAER® Committee.
- Over 350 responders have been trained in BC in the last 5 years.

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System Protection

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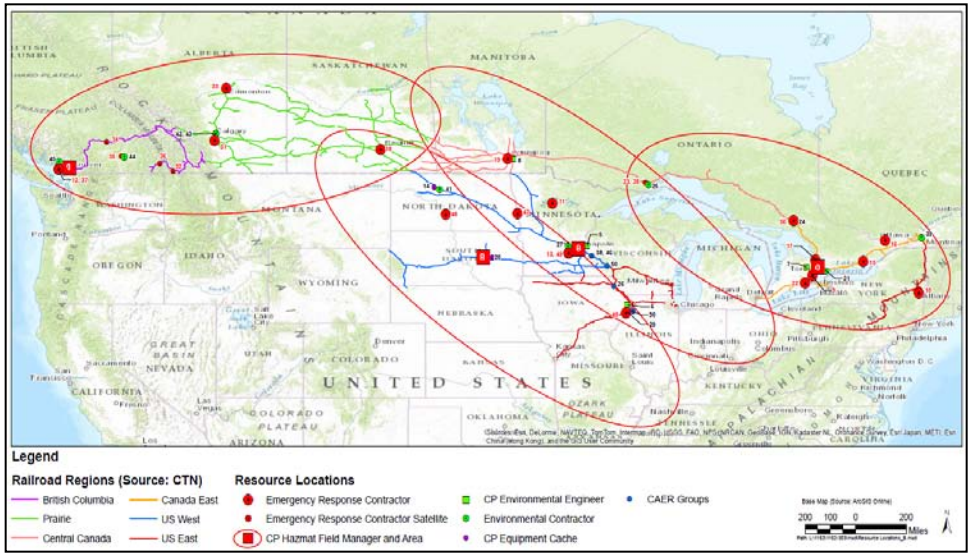
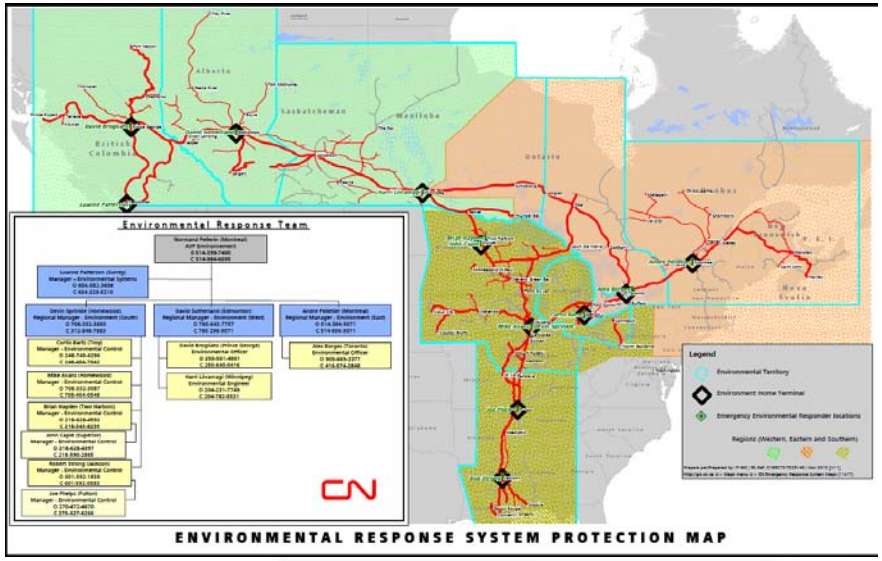
- Dangerous Goods Officers/HazMat Field Managers.
- Dangerous Goods Responders.
- Environmental Officers/Engineers.

Supported by:	
• Shipper's ET Teams • Specialized ER contractors	• Regulators • Long term remediation consulting firms





Emergency Preparedness

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- Shipment from Alberta to Vancouver and Prince Rupert, railroad lines are located along major river systems.
- Some river sections present very challenging conditions for all ER responses.
- Emergency response on rivers requires unique specialized expertise.
- Railways have contracts in place with environmental response teams.
- More than 50 spill response caches located in BC and Alberta to ensure speedy response.

Environmentally Sensitive Areas

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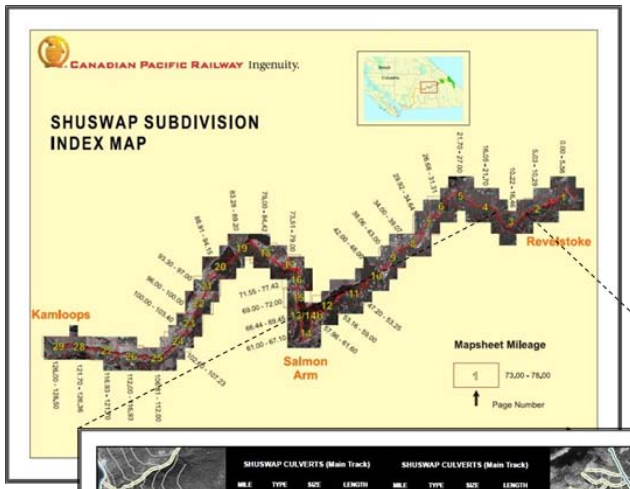

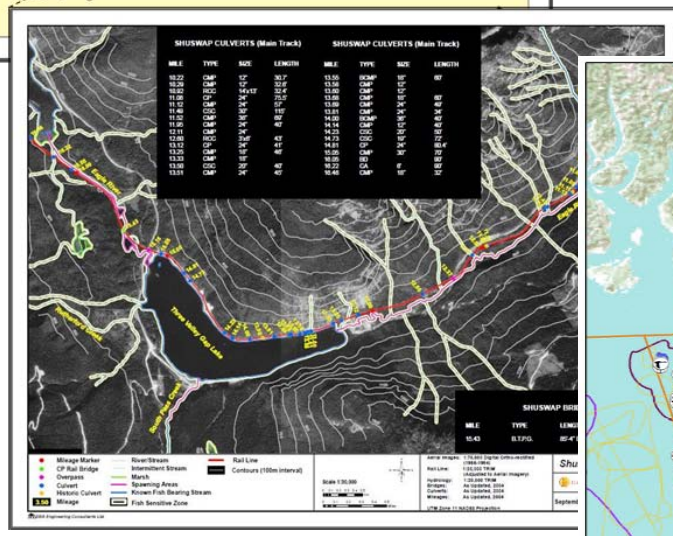

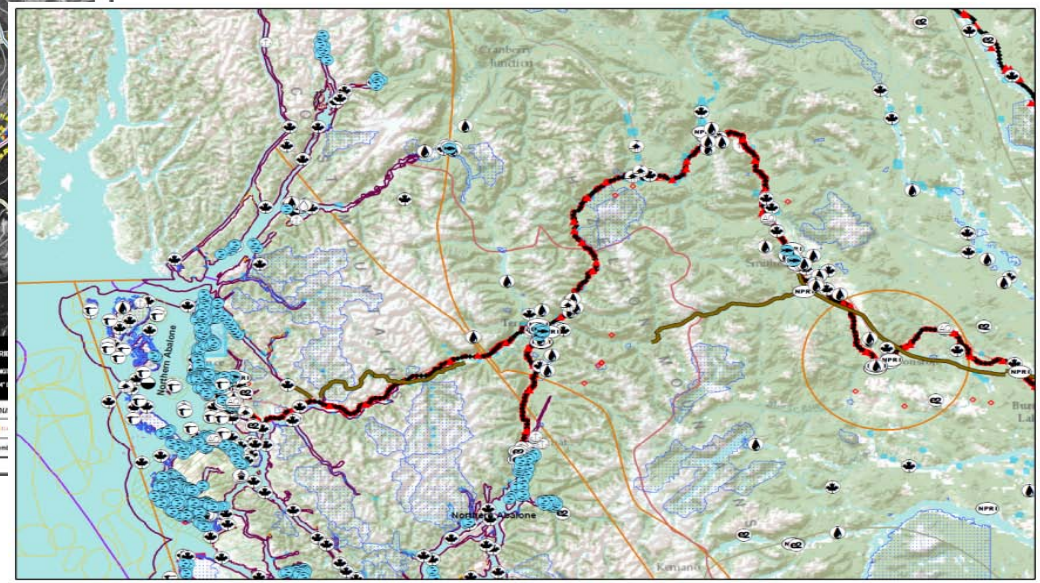

- Working with Environment Canada, BC and AB governments to identify and map sensitive fish and wildlife habitat areas along the rail corridor to facilitate and ensure response coordination.
- Control point mapping is ongoing for rail corridors in BC and AB.

Incident Command Systems

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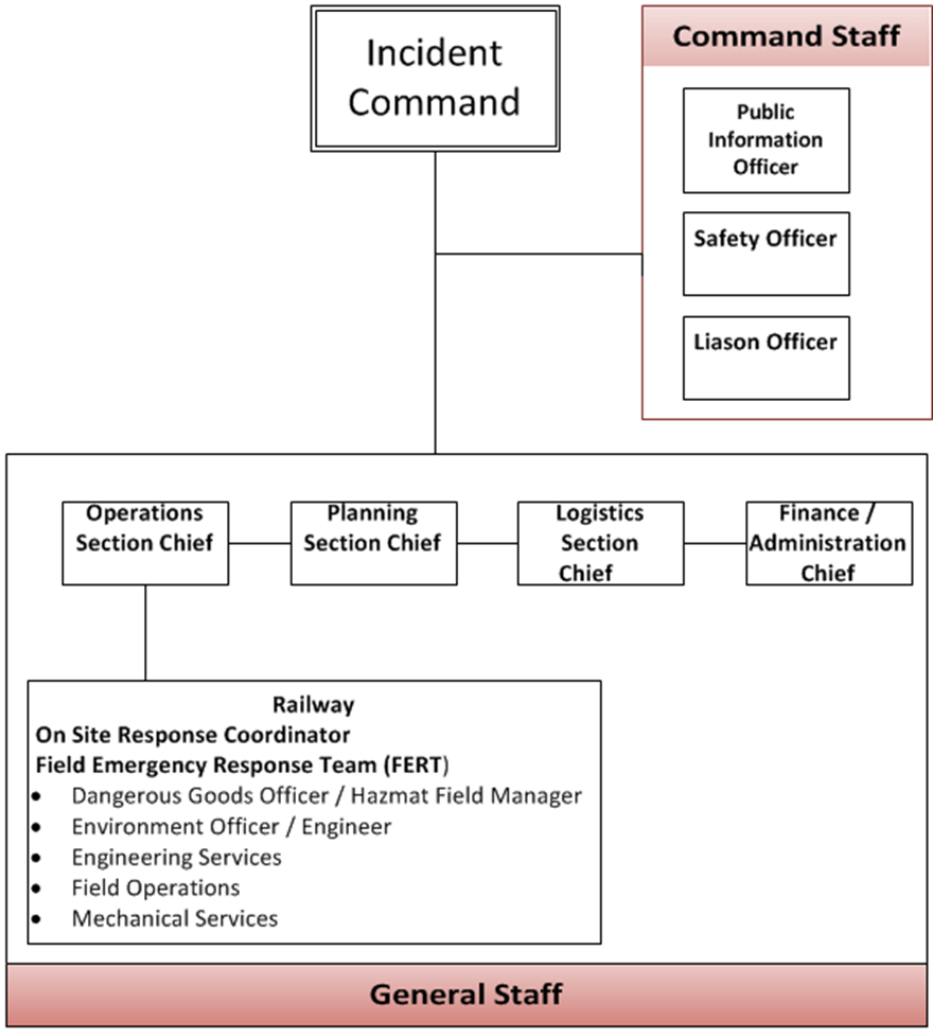
- Railways become an integrated component of the Incident Command System.

- The Rail On Scene Response Coordinator:
  - Reports to the Incident Command via the Operations Section Chief; and
  - Has internal railway and contractor experts at their disposal.



Incident Command Systems

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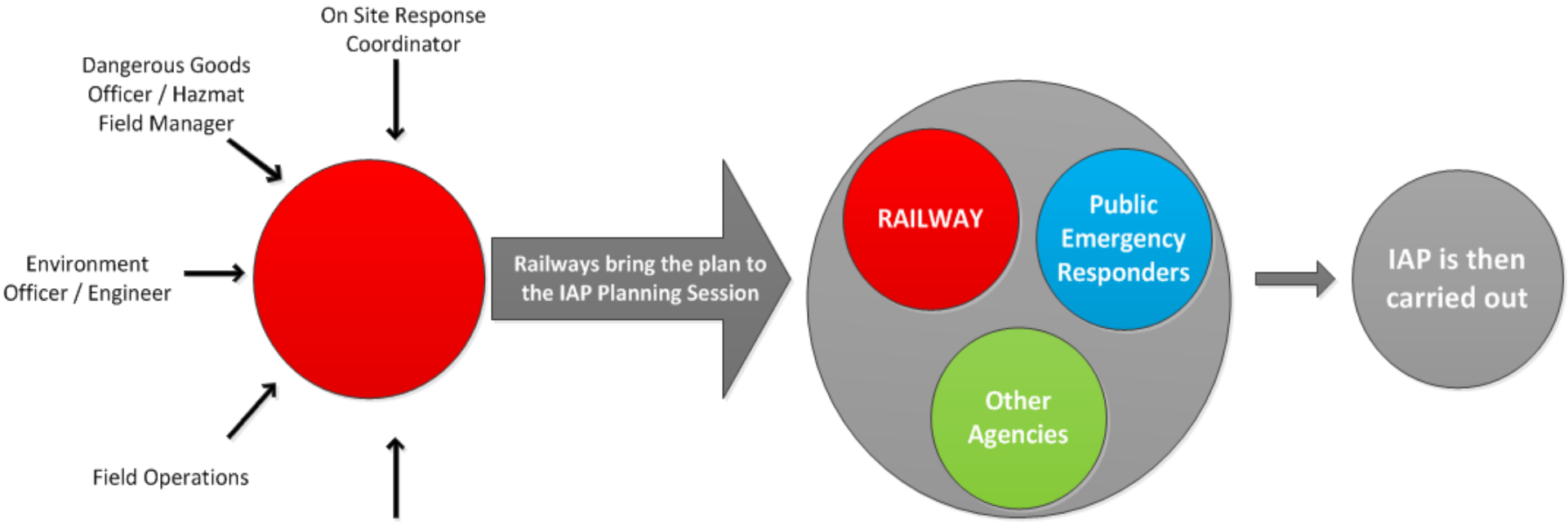
Incident Action Plan (IAP)

Below is a diagram outlining the process that takes place when Railways create, present and implement an Incident Action Plan (IAP)



- Opportunity for input from all parties
- Modify the plan
- IAP MUST BE approved by Emergency Responders and other Agencies

Railway Spill Response

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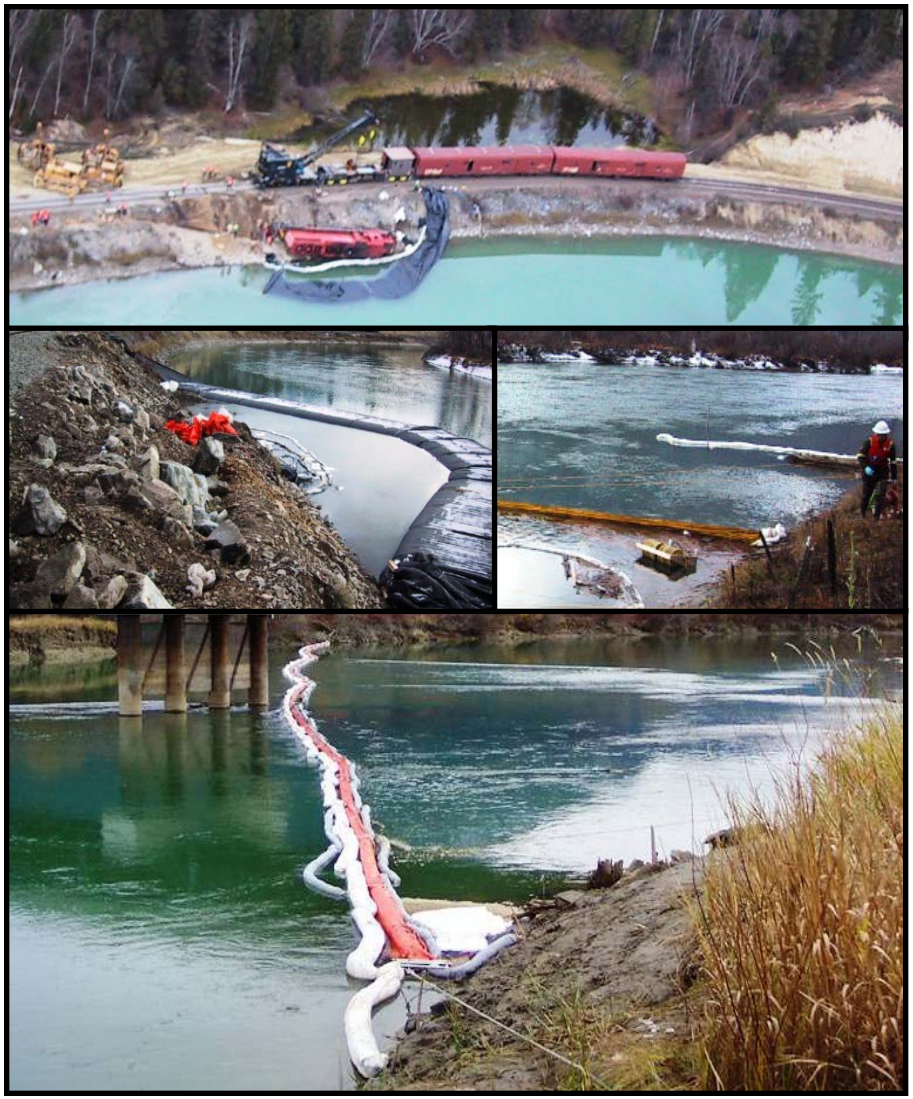

CP Locomotive Derailment – Radium, BC (Columbia River, October 2004)

- Release of 10,000 l of diesel fuel & oil.
- Deployment of Aquadam^{tm} to contain source controlled fluids originating from the locomotive.
- Trained and qualified Spill Response contractors.
- Impact & risk assessments undertaken by qualified consultants and submitted to BC MOE.
- Fish tissue sampling conducted to evaluate impact on resident fish populations.
- **No long term impacts identified.**

Railway Spill Response

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CN Locomotive Derailment – Yale, BC (Fraser River, October 2005)

- Release of 20,000 l of diesel fuel upon striking rock fall.
- Spilled fuel was lost to the fast moving Fraser River.
- Trained and qualified Spill Response and environmental contractors.
- Residual hydrocarbons were contained using river boom and absorbent pads.
- Fuel and impacted soil recovered from embankment and shoreline.
- Impact and risk assessments undertaken by qualified consultants and submitted to BC MOE.
- **No long term impacts identified.**

Railway Incident Response

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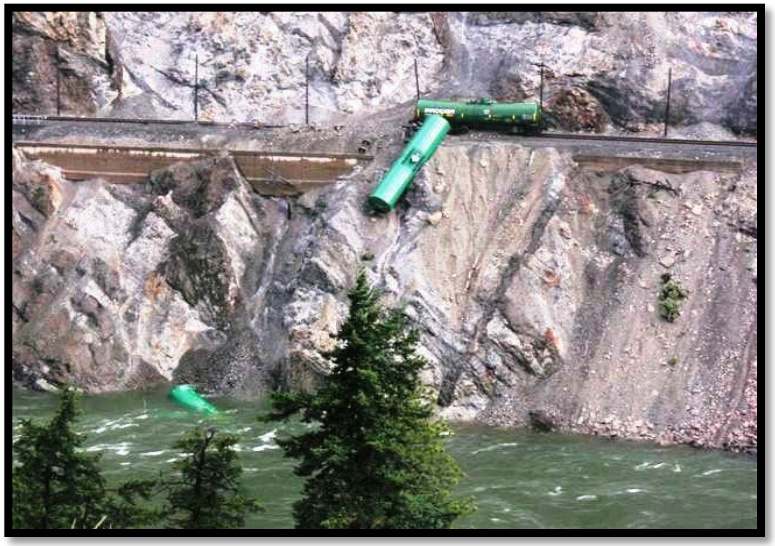
- Safety of employees, public and environment are paramount.
- Railways employ necessary resources including: equipment, material, expertise and manpower to mitigate environmental impacts, remediate contaminants and restore site to a pre-incident state.
- Railways engage regulators and other stakeholders to provide updates and communicate risk while working towards positive outcomes.
- Railways document site remediation and conduct site impact and risk assessments as required to comply with Regulatory and Environmental Standards.



Conclusion

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- Railways provide safe transportation of Dangerous Goods.
- Railways continuously improve operations and safety performance to reduce accidents and any environmental impacts.
- Railways prepare for rare incidents where a release may occur.
- Proven record of mitigating infrequent spills to regulators satisfaction.
- Railways manage and fully fund mitigation activities to world class standards.

APPENDIX A

Profile in British Columbia

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Class I Carriers:

- CN, CP and BNSF

Short lines & Passenger:

- Kelowna Pacific Railway
- Kettle Falls Int.
- SRY Rail Link
- West Coast Express
- Rocky Mountaineer
- VIA and Amtrak

Key Stats (2011):

- 6,675 kms of track
- 4,992 employees
- Approx. 900 K originated car loads & 62.5 M tonnes
- $83 M paid in provincial fuel, property, and other taxes

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