Dave Schroeder, Alberta SRD
Oil and Gas (all of Alberta)

- 15,500 operating production facilities
- 85,760 Active well sites (oil/gas/water)
- 2009-2010 – 26,000 planned flaring events
- 135,973 km pipelines (note some corridors have multi-lines)

- Power Transmission (within Forest Protection area)
  - 6,305 km (does not include distribution)

- Rail lines
  - 2,170 km
Human Caused Wildfires by General Class (1990-2009)
Source: Sustainable Resource Development
Hectares Burned by Human Caused Wildfires, General Class (1990-2009)
Source: Sustainable Resource Development

- Foresty Industry
- Incendiary
- Misc Known
- Other Industry
- Oil and Gas Industry
- Power Line Industry
- Prescribed Burn
- Railroad
- Recreation
- Resident
- Undetermined
- Restart
- Under Investigation
NEED FOR PROTECTION
NEED FOR PROTECTION
More people/infrastructure to protect = more resource requirements

Evacuations

- Site access constraints
- 1000’s workers
- Workers spread across landscape
- Staff turnover is high – difficult in maintaining contacts
Highly trained workers – especially if equipment being used

Lot of fuel breaks (pipeline etc.) = good, that can turn into fuel wicks = bad

Lots of people and flights = good for detection

Potential to use new air strips for tankers

More road access and heavy equipment available!

Lot more fuel breaks or not….ask Colleen Mooney!
WILDFIRE SUPPRESSION
Fire Danger Forecasts

Today's Fire Danger

- Build-Up Index
- Drought Code
- Duff Moisture Code
- Fine Fuel Moisture Code
- Fire Danger
- Head Fire Intensity
- Initial Spread Index
- Wildfire Ignition Probability

Forecasted Fire Danger

- Build-Up Index
- Drought Code
- Duff Moisture Code
- Fine Fuel Moisture Code
- Fire Danger
- Head Fire Intensity
- Initial Spread Index
- Crown Fraction Burned
- Precipitation
- Rate of Spread
- Time to 2.0 Hectares
- Wildfire Ignition Probability

Related Information

- Alberta Firebans
Potential fire behaviour

Fire occurrence

Values at risk

Fire suppression capability

Spring  Summer  Fall
BANS AND CLOSURES

- Fire bans are common, not closures
- 2007 - Forest closure in Southern Rockies
  - BUI > 160
  - Aug 01 – Sept 12
  - Industry directly impacted
- Requires Ministerial Order and minimum 2 days to implement

“It was a lot simpler then, there were fewer people and less agencies involved. We made the decision and there was not a lot of stakeholder consultation. I got a call from Calgary to close the gate, so I did.”

Dennis York, Assistant Ranger
Highwood Ranger Station, 1970
Industry impacted by:

- Shut downs/evacuation of individual sites
- Access loss through road closure
- Power interruption
- Pipeline interruption
- Air quality due to smoke
- Loss of production .... CRITICAL
Fires are irregular!

Infrequent loss of production

What, Me Worry?
On–line data:

- Flaring Notification
- Powerline Hazard Assessment Plan
- Industrial Wildfire Control Plans

- Dedicated staff within SRD prevention section
- Industry Wildfire Prevention Group
OBJECTIVES:
- Increase personnel safety
- Improve emergency response
- Reduce economic loss
- Protect infrastructure
- Reduce liability

Available at: www.partnersinprotection.ab.ca

Next Steps:
- 2010 – Field Manual
- Enform Training
CAPP Initiative
Assist upstream oil and gas industry in
- Preventing industry cause wildfires
- Mitigating the impact of wildfires on infrastructure, operations, liability, personnel safety and the environment.

Available at:
www.partnersinprotection.ab.ca
Wildlife Retention

Mulch 3m Grid

Photo credit: Encana
Differences in species flammability: identifying less-flammable vegetation


Effectiveness of mowing grass to reduce potential fire behaviour in corridors

http://fire.feric.ca/36202003/AD_10_3.pdf
Are the unknowns:

Known – climate, insects, industry expansion?

Unknown – can we adapt? If not, reactor better?
Threshold incompatibility

Ability to suppress fires (read: prevent industry stoppage) VS expectation

Likelihood of suppression success

Fire hazard/Fire situation (ha’s, #’s)

Present

Future

Likelihood of production loss

Red line won’t move, blue line probably will