



Canadian
Petroleum
Products
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Institut
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pétroliers

Water Management Framework

November, 2008



Outline

- Background
- Responsibilities and Challenges
- CPPI Water Management – Vision and Framework
- Water Policy in Canada – Directions, Impacts and Perspectives



Background

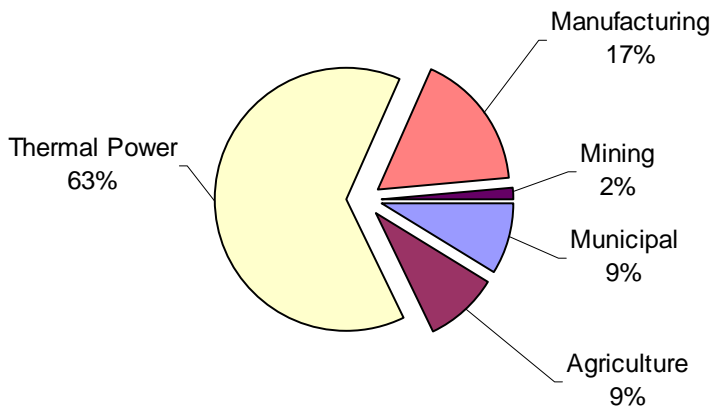
- CPPI's Water Management Framework focus is on 'fresh water'
- Canadians generally consider water from two aspects ...
 - Quality: "Fishable, drinkable, swim able"
 - Quantity: Changing perception about available water being unlimited, "Take less, pay more, return it cleaner"
- Several emerging water policy considerations ...
 - Conservation, valuation, bulk water exports, safe drinking water to First Nations, impact of climate change on water levels, etc.
- Most provincial governments have strengthened water legislation ...
 - Focus on integrated water/watershed resource governance
 - Water fees and conservation
 - Increased penalties for non-compliance



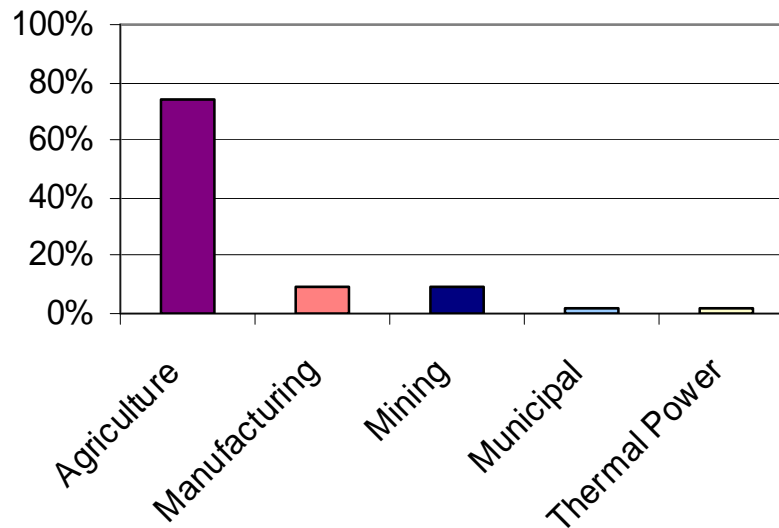
Background

All sectors of society need access to water

Water Withdrawal



Water Consumption (Withdrawal minus Return)



Source: Environment Canada 2002; Shrubsole/Draper, Eau Canada, 2007



Petroleum Industry Refining, Distribution & Marketing

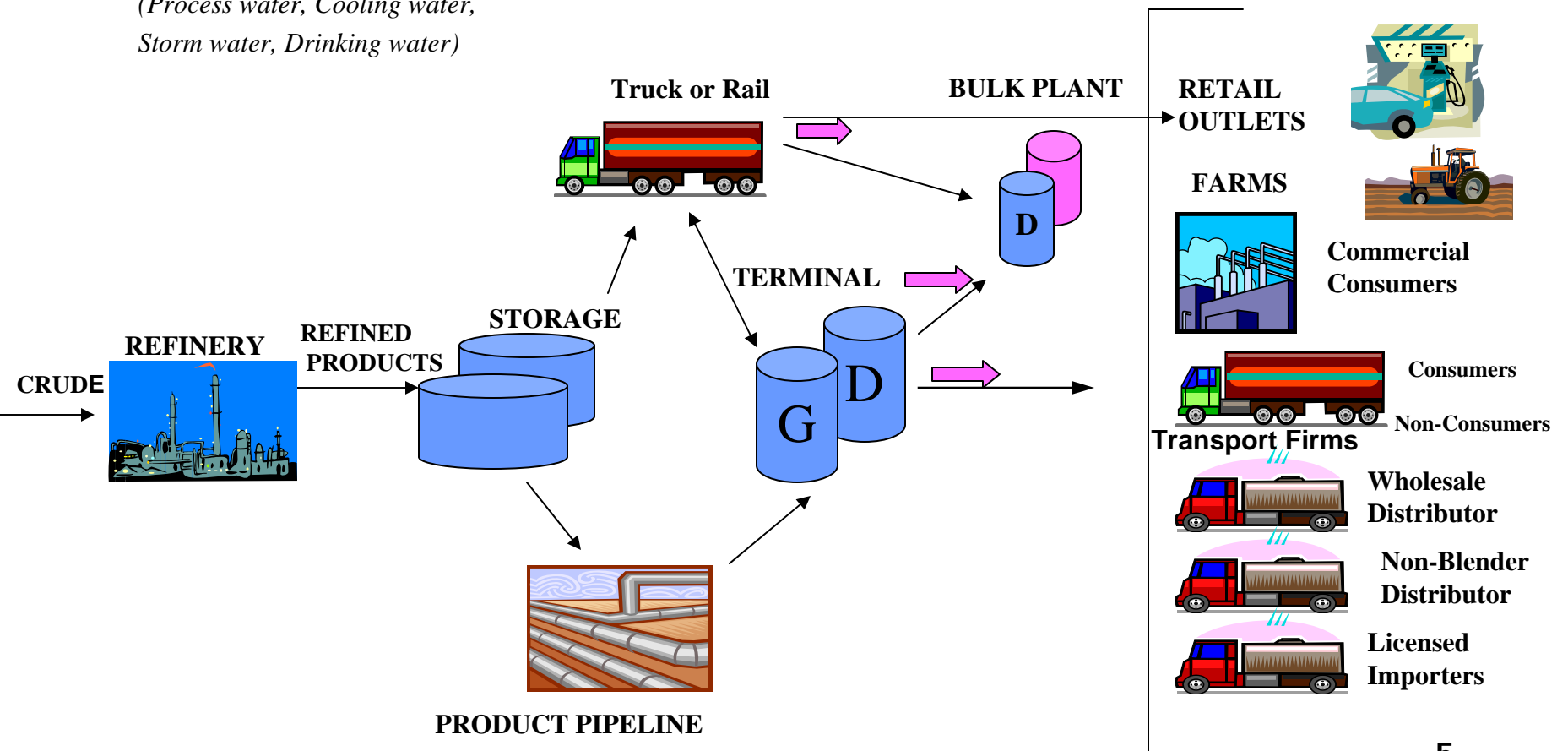
Refining

Manufacturing

(Process water, Cooling water,
Storm water, Drinking water)

Distribution – Transportation / Storage

Marketing





Responsibilities & Challenges

- All water consumers, from families, to farmers, to industry, share the same responsibility...to work to minimize their consumption and to help protect the quality of returned water.
- Industry – needs to exercise responsibility for our share, and be good stewards of water resources, through:
 - Fully complying with water laws and regulations
 - Developing sustainable water use strategies, plans and actions and become partners in integrated water resource solutions
 - Support technology development and application to both reduce consumption and improve quality of returned water



Water Policy in Canada

- Historically, water policy split between federal & provincial authorities
- Private sector complies with multi-level legislation & regulations ...
 - **Federal**: 19 different federal departments
 - **Provincial**: Numerous water acts, regulations, guidelines and strategies
 - **Municipal**: sewer use bylaws; conservation; fees
 - In addition: inter jurisdictional water management authorities, such as in the Great Lakes Basin; and the CCME, deal with water taking, permitting, consumption, withdrawal, water conservation, toxics, chemical pollution, etc.

Coordinated water policies required for efficient compliance



Water policy directions and impacts on petroleum refining & marketing

Overall, movement toward ecosystem approach, coupled with inclusive, collaborative management process. Balance between human needs and watershed integrity

- Water conservation and efficiency
 - Limited water withdrawal, recycled water, reduction targets, etc.
- Water use fees / surcharges
 - Water at reasonable cost, a key factor in Canadian industry competitiveness
 - Charges beyond treatment and supply costs
- Merging of land and water resource policy
 - Land use restrictions for drinking water protection
- More scrutiny/stringent water design standards
 - Effluent discharge limits, sewer use limits, storm water storage, etc.
- Additional permit requirements
 - Monitoring, metering, surveys, reporting, record-keeping
- Increased penalties for non-compliance (e.g., spills)



Perspectives on water policy making

- Proactively identify data that CPPI members have available that we believe will provide guidance in supporting government in developing policy.
- Protect water quality by managing business with the goal of preventing incidents that would be detrimental to water quality, by controlling the release of water streams to meet accepted standards, and by designing, constructing, operating, and maintaining facilities to this end
 - Water quality standards should be based on strong science, risk, and benefit and economic analysis
- Leverage the significant depth of technical and process capability within business to continuously improve environmental performance throughout our operations
 - Encourage conservation and minimization of fresh water use and consumption where economic and environmental benefits are demonstrated



Perspectives on water policy making

- Support a risk-based, multi-stakeholder approach to fresh water planning and protection to achieve standards and requirements that are applied fairly and consistently across jurisdictions.
- In areas of scarce water supply, any allocation decision by applicable regulatory authorities, must integrate economic, social (drinking water supply, sanitation, recreation) and environmental (wildlife and wildlife habitat) considerations in an open and transparent process. Sound science and a full assessment of risks and risk management options should be part of the process.
- Users should pay the total costs related to water delivery and treatment, based on volume (i.e. no government subsidies).



CPPI Water Management

- Water network under the CPPI National Environment Committee
- Participation / representation on water policy bodies (e.g.)
 - Alberta Water Council
 - Ontario Source Protection Committee
 - Council Great Lakes Industries
 - Liaison with other networks. e.g., Brownfields
- Participating in government consultations
- Responded to Statistics Canada industrial water survey
- Future analysis based on:
 - (1) conserve & minimize use; (2) prevent incidents (3) control effluent stream
 - Evaluate the 'business as usual scenario' coupled with a 'risk based improvement prioritization'
- Liaison with technology centers (e.g., Ontario Centres of Excellence, Canadian Water Network)



CPPI Water Management Vision & Framework

'Responsible Stewards of Water'

