

Environmental Impact Assessment for Seymour-Capilano Filtration Plant



**Mark Ferguson
Senior Engineer
Water Treatment Engineering
Greater Vancouver Regional District**

Greater Vancouver Regional District

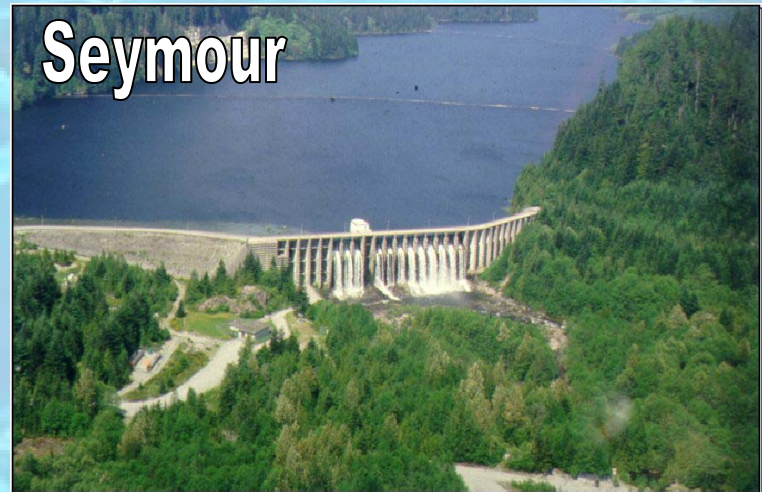
- 21 municipalities and 1 electoral area
- serves 2 million
- Regional utility services : water, solid waste management , sewerage, and drainage
- wholesaler of water to the region

Source Reservoirs

Coquitlam



Seymour



Capilano



- Need for filtration at Seymour and Capilano



Site Selection and Project Development

“Sustainable Approach?”



- Triple Bottom Line
 - Environmental
 - Social
 - Economic/Technical

Seymour-Capilano Filtration Project

Capilano Lake
Reservoir

Cleveland Dam
Capilano Pumping Station
Energy Recovery Facility

Treated Water

Untreated Water

Rice Lake

Mainline Road

Seymour River

Filtration
Plant Site

PSA
Shooting
Range

District of North Vancouver

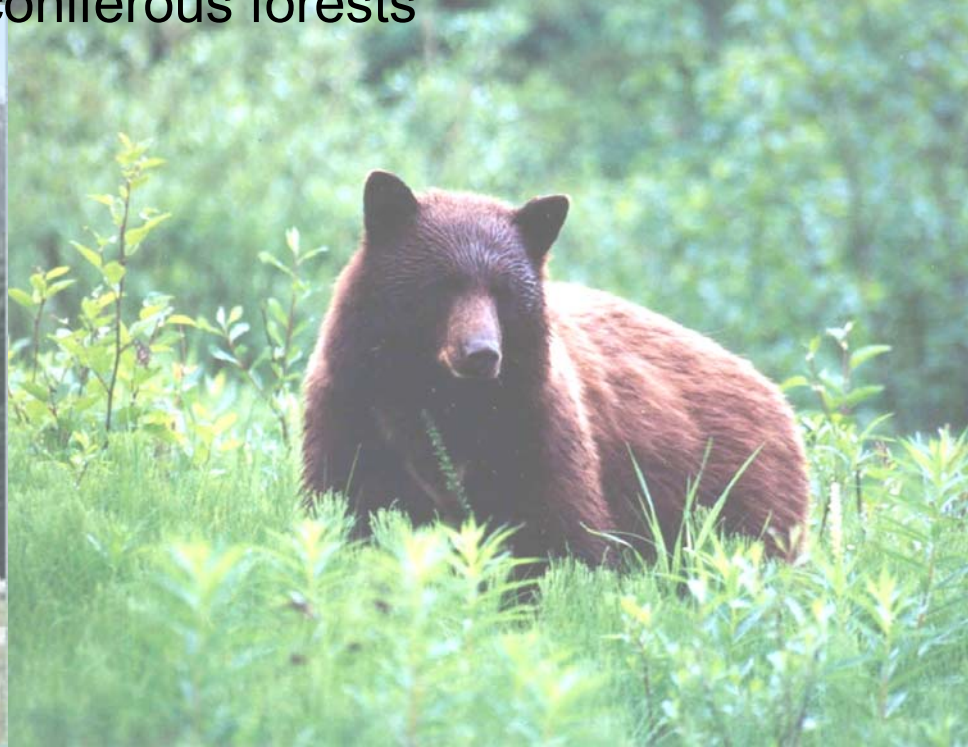
Trans-Canada Highway

Lynn Creek

Lillooet Road

SCFP Site

- 16 hectares of land located within LSCR
- Presence of later mature coniferous forests
- Diverse Wildlife Species



Environment

- Tree stand and ecological assessments
- Wildlife and archaeological assessments
- Minimize impact
- No net change in stormwater regimes

Site Development

- Plant salvage programs with non-profit groups and public
- Salvage of root wads and stems
- Recycle and chip LWD
- Onsite soils handling and concrete production



Revegetation

- Ecosystem balance sheet approach
- Maximize biodiversity
- Native plants

Communications and Public Involvement

- Specialty meetings
- Community association presentations
- Municipal staff and the
Community Monitoring & Advisory Committee (CMAC)
- Public consultation is ongoing

Public Mitigation

- Vehicle emissions and safety
 - All trucks subject to inspections
- Noise
 - Barriers constructed
- New 10 km recreational trail

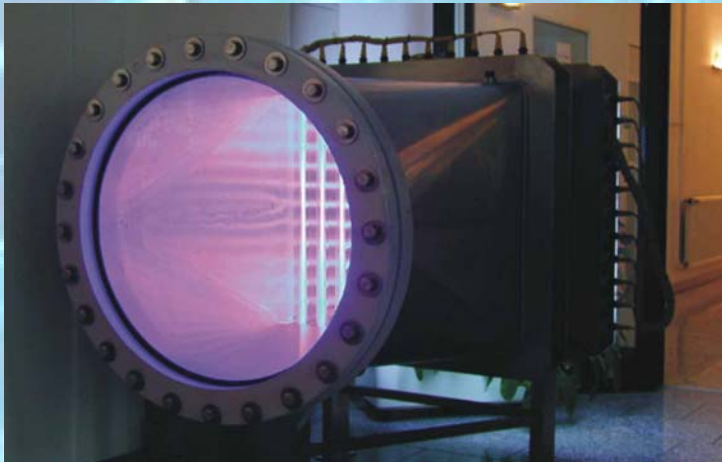


Sustainable Building and Design Technologies

- **EcoSmart concrete**
- **Green Building Technologies**
- **Energy and water conservation strategies**
- **Recreation/Educational Opportunities**
- **LEED Certification**



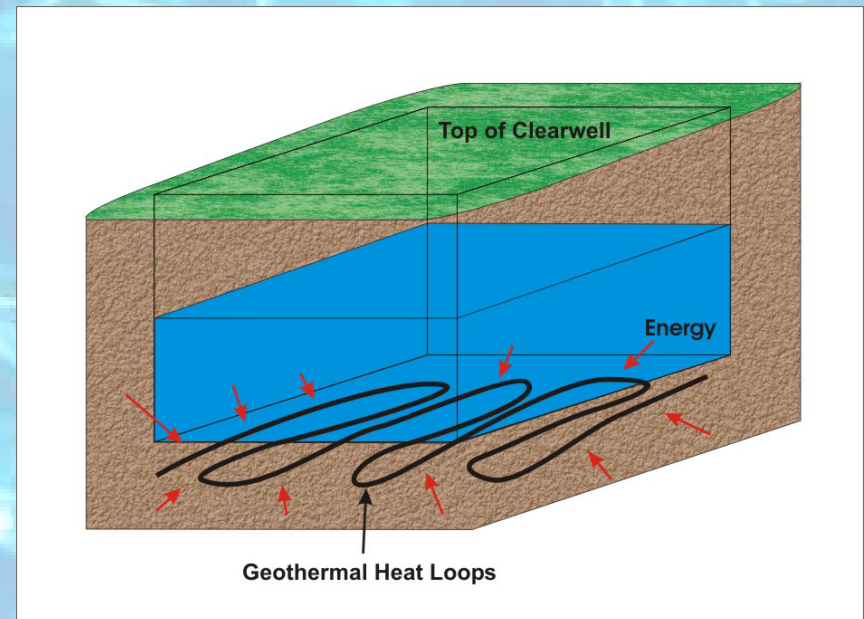
Water Treatment Processes

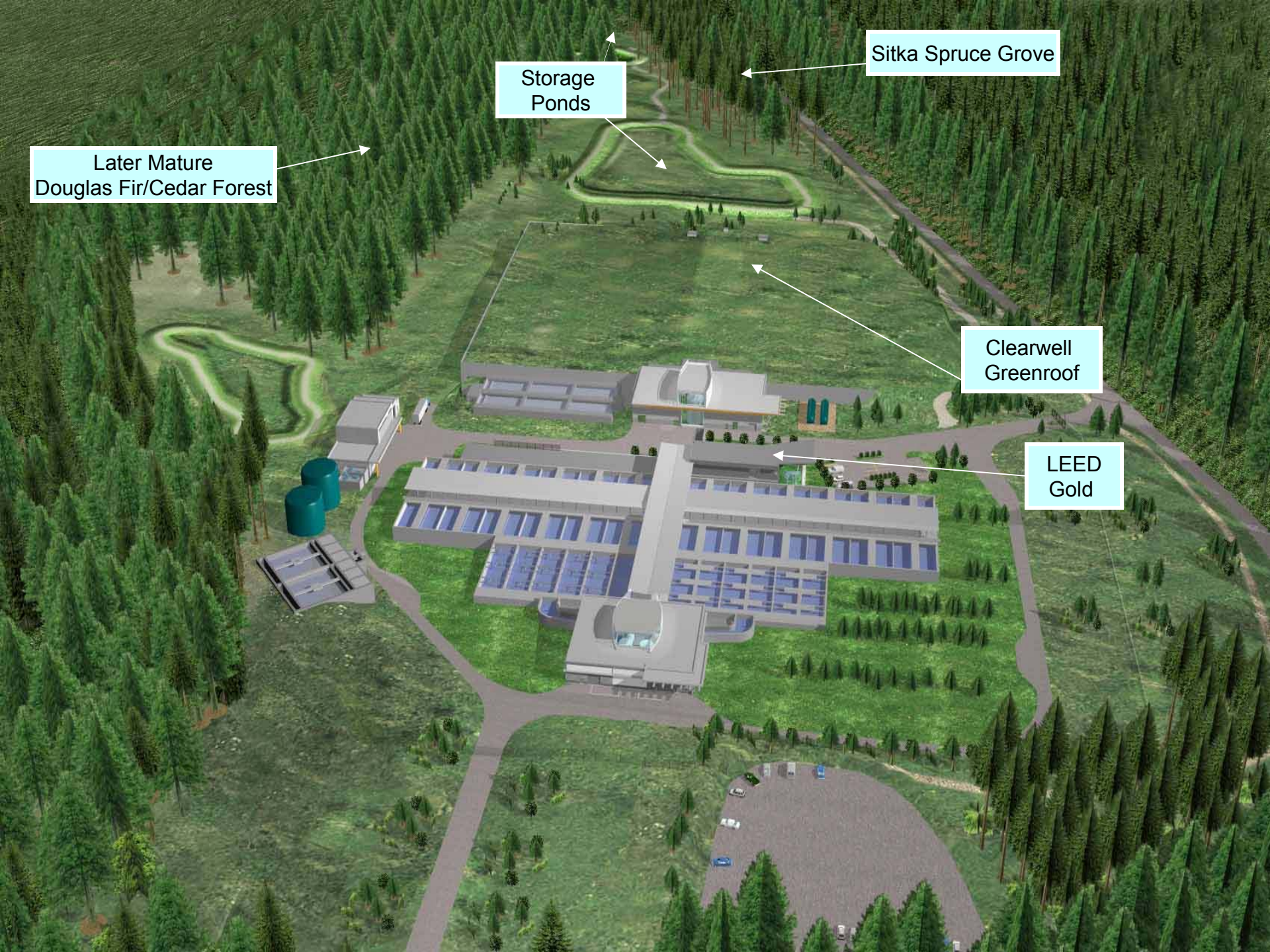


- 98% Recycling Backwash
- UV light for disinfection
- No gas chlorine
- Reusing solids residuals

Geothermal Heat Recovery System

- Gas will not be piped to facility
- Primary source of energy for the SCFP





Later Mature
Douglas Fir/Cedar Forest

Storage
Ponds

Sitka Spruce Grove

Clearwell
Greenroof

LEED
Gold



Questions?