

Central Okanagan Post Fire Rehabilitation Project

December 2005



Okanagan Mountain Fire, 2003

- ◆ Classified as a Rank Six Firestorm
- ◆ 30,000 people were evacuated
- ◆ Burned 238 homes
- ◆ Seven watersheds burned between 40% and 100%.



Post Fire Watershed Impacts

- ◆ Dobson Engineering Ltd. assessed slope hazards and hydrologic conditions. Impacts included:
 - Surface erosion
 - Terrain stability hazards
 - Hydrophobic soils
 - Increased sediment loads
 - Decline in water quality
 - Habitat loss.



Storm Event, October 22nd

- ◆ Deposited 12 to 20 mm of rainfall in a 20 to 45 minute period
- ◆ Flooding and debris caused significant erosion
- ◆ Rembler Creek – debris deposited up to 200 meters downstream
- ◆ Turbidity levels of raw water rose from the typical 0.1 NTU's to 20 NTU's.



Post Fire Actions

- ◆ City Culvert Improvements
- ◆ Provincial Grass Seeding Program
- ◆ Hazardous tree assessments and removal on City-owned lands.



Central Okanagan Post Fire Rehabilitation Project

Project Objectives:

1. Assess sensitive ecosystems
2. Identify areas prone to degradation
3. Determine feasible treatments
4. Prioritize sequence of treatments
5. Develop and implement prescriptions
6. Monitor treatment effectiveness.



Central Okanagan Post Fire Rehabilitation Project

Treatment Objectives:

- ◆ Control surface runoff and minimize sediment transport
- ◆ Protect infrastructure
- ◆ Accelerate establishment of vegetation
- ◆ Increase vegetation in riparian ecosystems
- ◆ Develop wildlife connectivity corridors.

Central Okanagan Post Fire Rehabilitation Project, 2004

- ◆ Erosion and Enhancement Techniques:
 - Contour logging
 - Instream structures
 - Live staking and replanting.

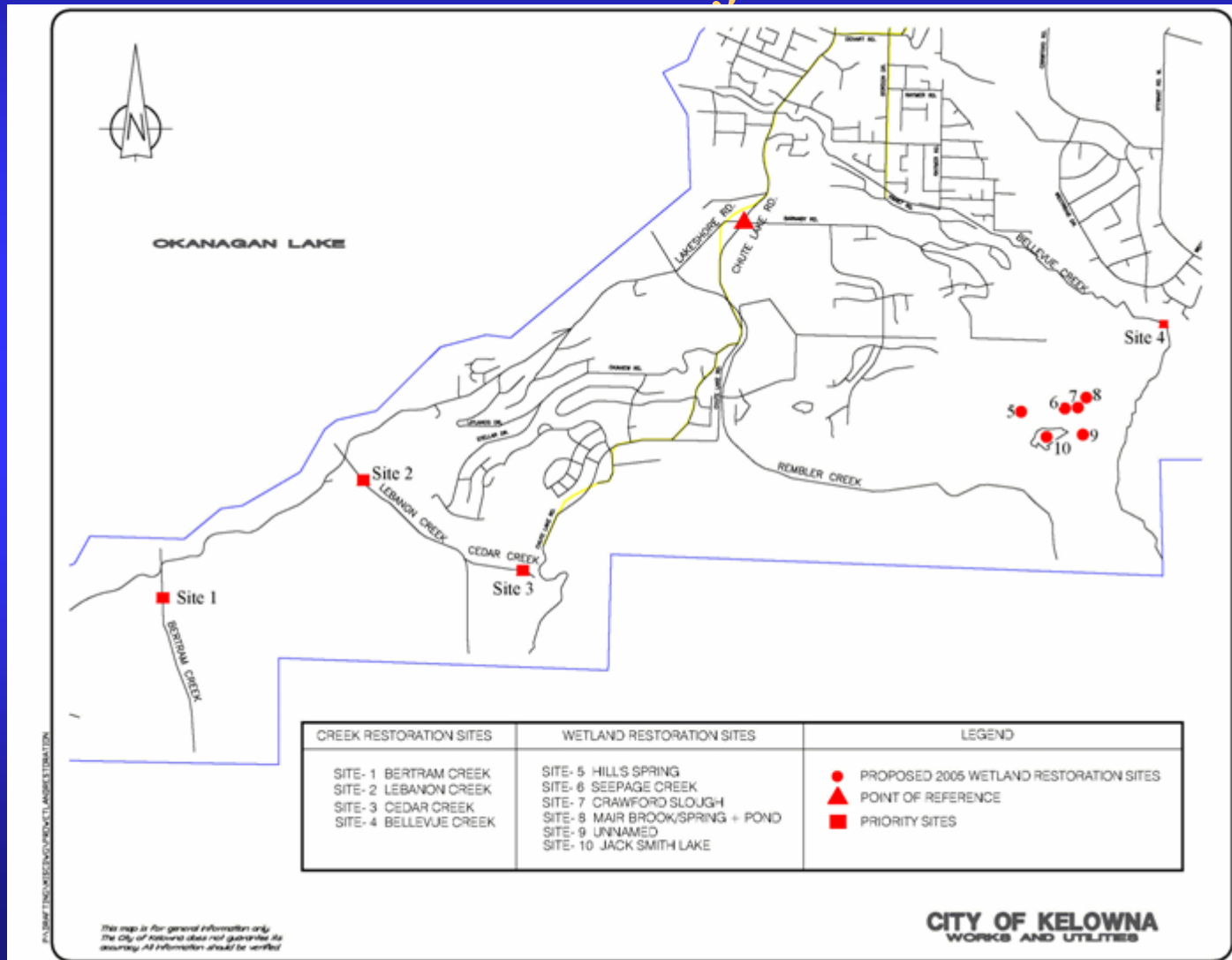


Central Okanagan Post Fire Rehabilitation Project, 2004

- ◆ Restoration:
 - 800 m on Lebanon and Cedar Creek
 - 300 m on Bellevue Creek
 - 350 m on Bertram Creek.



Central Okanagan Post Fire Rehabilitation Project Sites



Central Okanagan Post Fire Rehabilitation Project, 2005

- ◆ Restoration Objectives:
 - Completed restoration works at 2004 high priority sites
 - Planted 34,000 trees and shrubs.
 - Accelerated recovery of 6 key wetland features through replanting and installation of duck and bat nest boxes.



Central Okanagan Post Fire Rehabilitation Project, 2005

- ◆ Stewardship:
 - School District #23
Helping Hand: A Joint Reforestation Program
 - Scouts Canada willow collection and replanting projects.



Project Monitoring

- ◆ Methodology established in the “Stream Restoration Site Assessment Procedure for Southern Interior Streams
- ◆ Photo point monitoring
- ◆ Years 1, 3, 5, 10 and 20.



Future Direction

- ◆ City has allocated an annual budget of \$20,000 for 2005 to 2007
- ◆ Invasive Weed Planning and Management in 2006.



Questions?

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