



Presentation

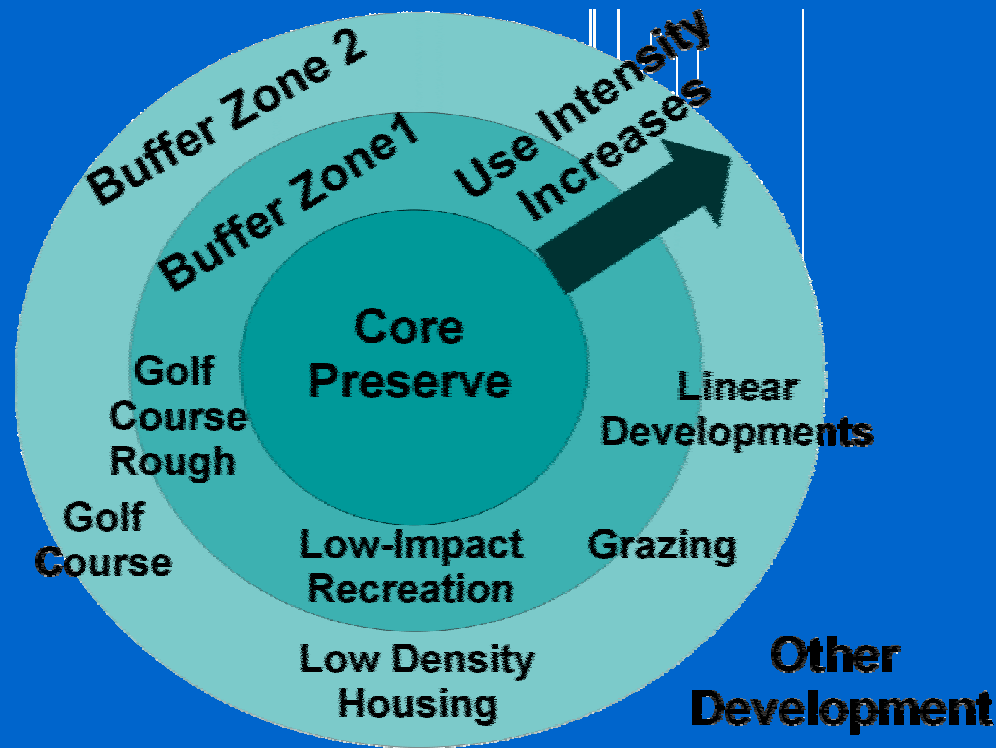
- Conservation planning demonstration for the Bella Vista – Goose Lake Range
- Environmental Impact Assessments
- ERM Tool Demo
 - creating a ratings table
 - SEI map
 - wildlife habitat map
 - slope stability map
- Open workshop



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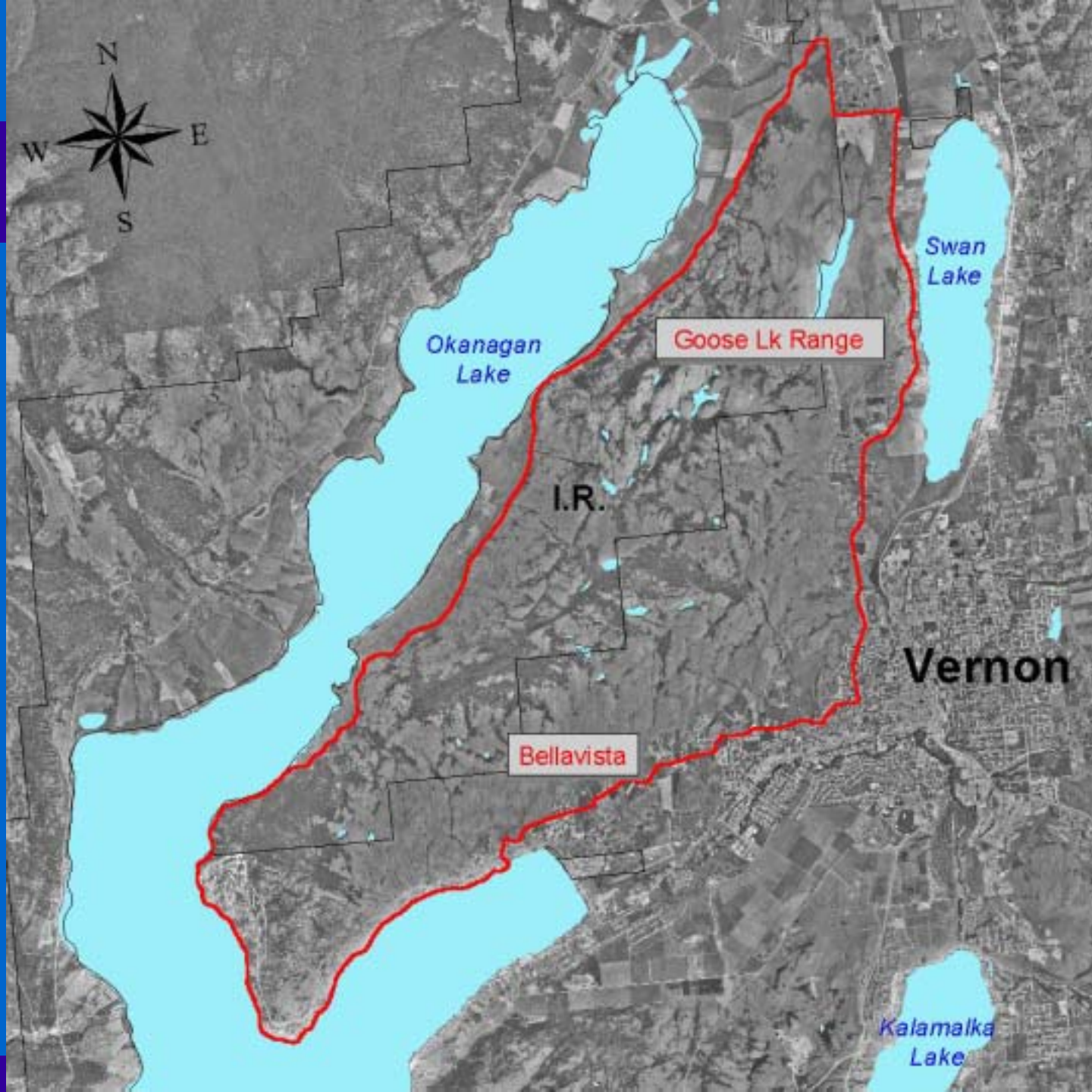
Designing a Network of Ecosystems & Linkages

Bella Vista – Goose Lake Range



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Study Area



Bella Vista - Goose Lake Range

- Local Community Values -



- Ranked “Very Important” in Vernon Natural Areas and Features Inventory
- Prominent natural feature and viewscape for the community
- Excellent potential for outdoor recreation and nature-based tourism

SEI Map

Map Legend

- Plot Location Symbol

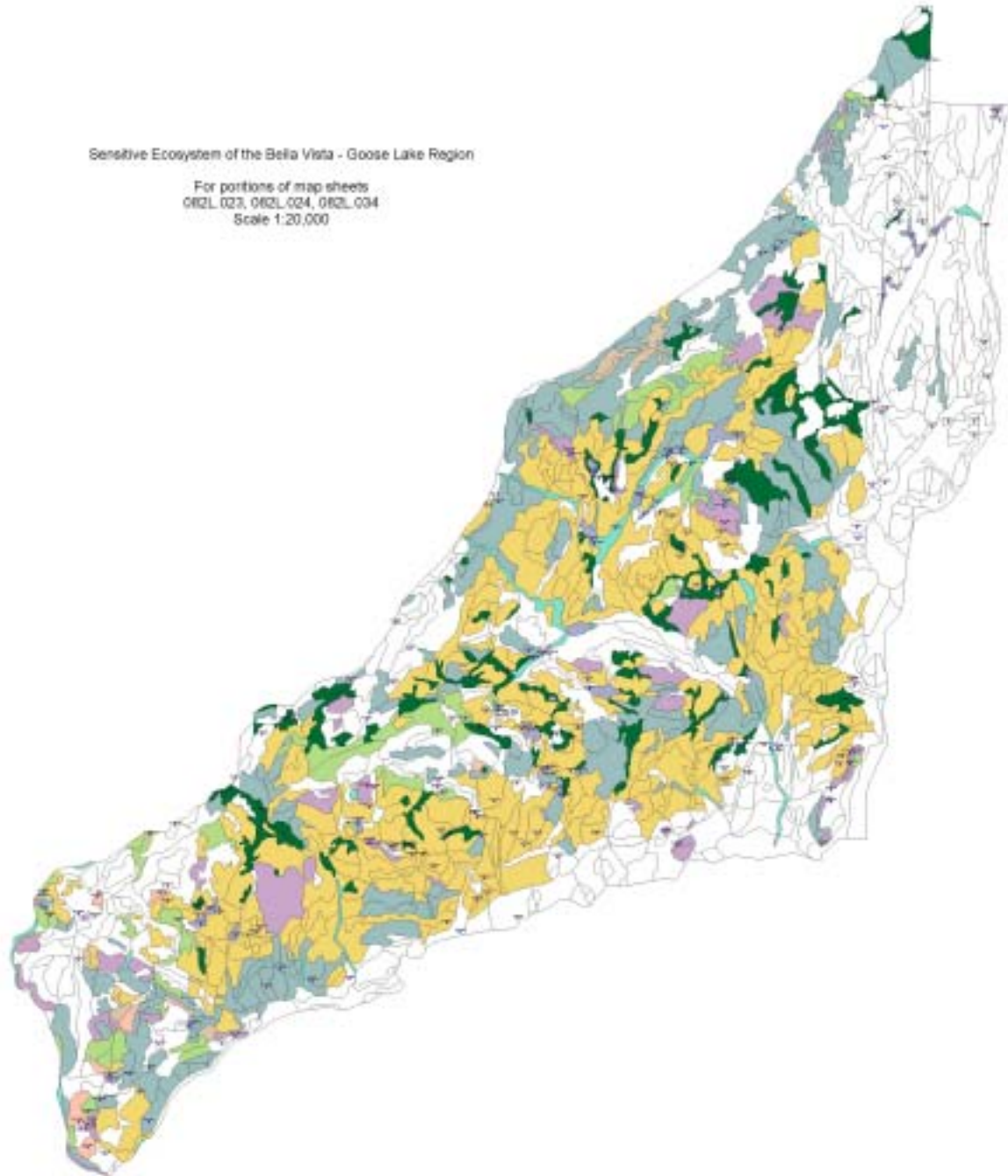
- Study area boundary
- Ecosystem Map Unit
- Ecosection Map Unit

- Broadleaf Woodland
- Disturbed Grasslands
- Grasslands
- Mature Forest
- NA
- Old Forest
- Riparian
- Sparsely Vegetated
- Conifer Woodlands
- Wetlands

33% Sensitive Ecosystems
27% Other Important
Ecosystems

Sensitive Ecosystem of the Bella Vista - Goose Lake Region

For portions of map sheets
062L 023, 062L 024, 062L 034
Scale 1:20,000



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Goals

- Conserve high quality sensitive ecosystems
- Long term persistence of all native species
- Ensure linkages between core areas
- Buffer core areas
- Identify key areas for development
- Minimize cost and conflict

Conservation Priorities

- Prioritize sensitive ecosystems
 - relative ranking from 1 to 10 (0 for non-sensitive ecosystems)
- Adjust rank based on quality
 - (0.1 for poor to 1.0 for excellent)
- Sum wildlife habitat values
 - each high rating valued 10, moderate 6, low 2
 - averaged (unweighted) for each polygon
- Combine ecosystem and wildlife habitat values (2:1)

SE + Wildlife Habitat = Conservation Rating

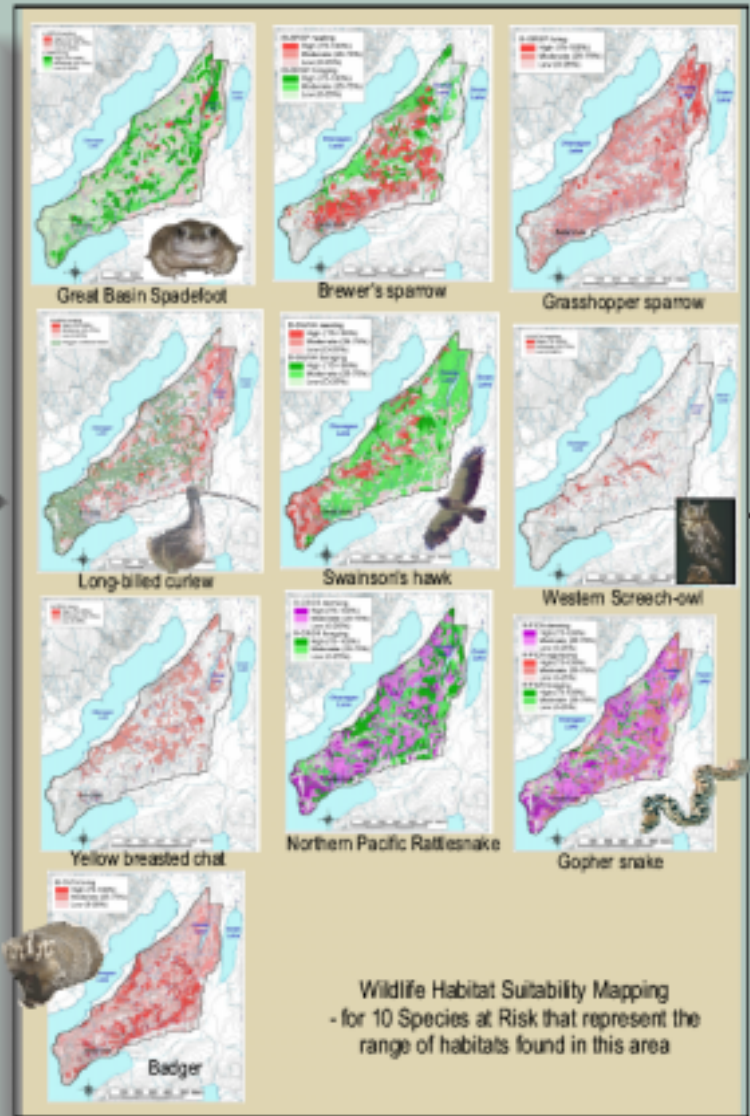
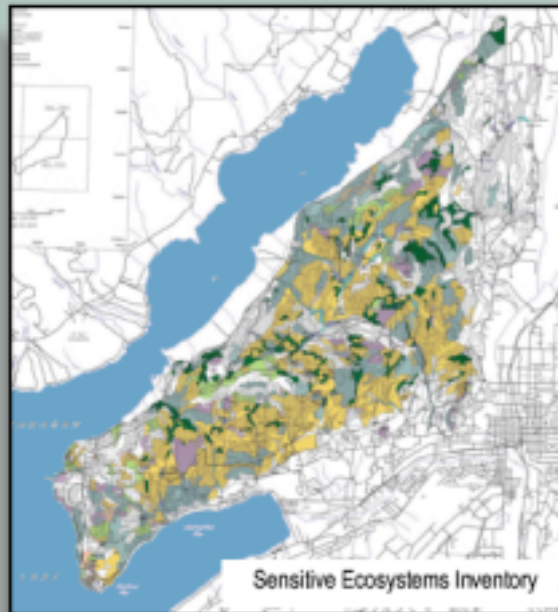
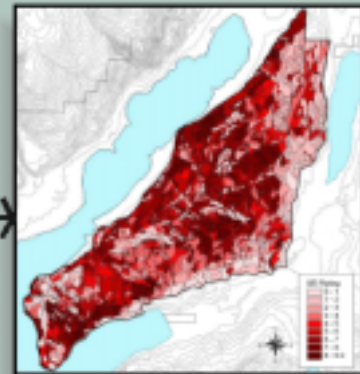
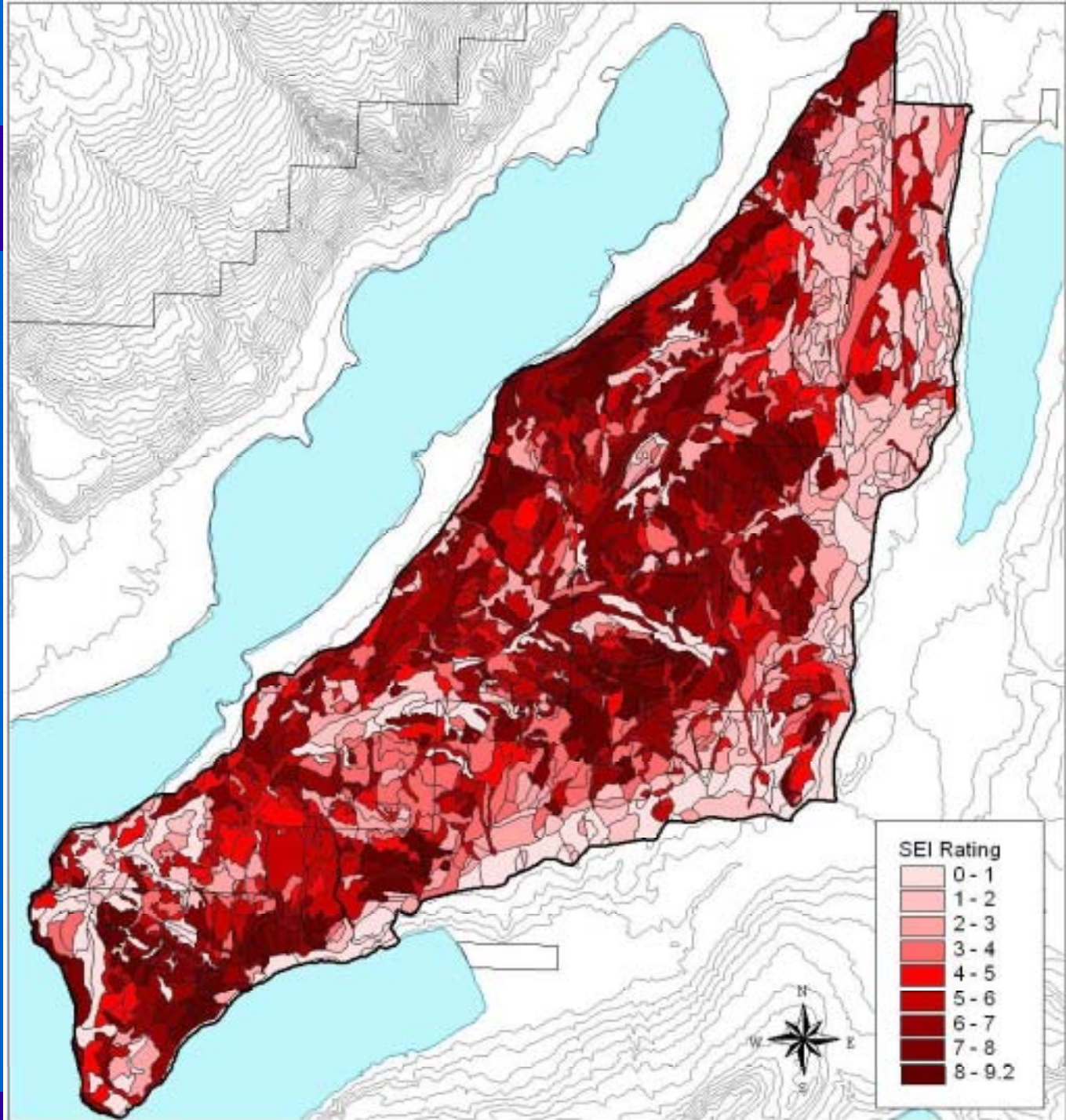


Diagram 1. Information Sources used to create Conservation Rating Map (See Appendix II for detailed methods)



Combined ratings of Sensitive Ecosystems and wildlife habitat values
(Note: Higher numbers/darker tones indicate higher conservation values; only relative values are important)

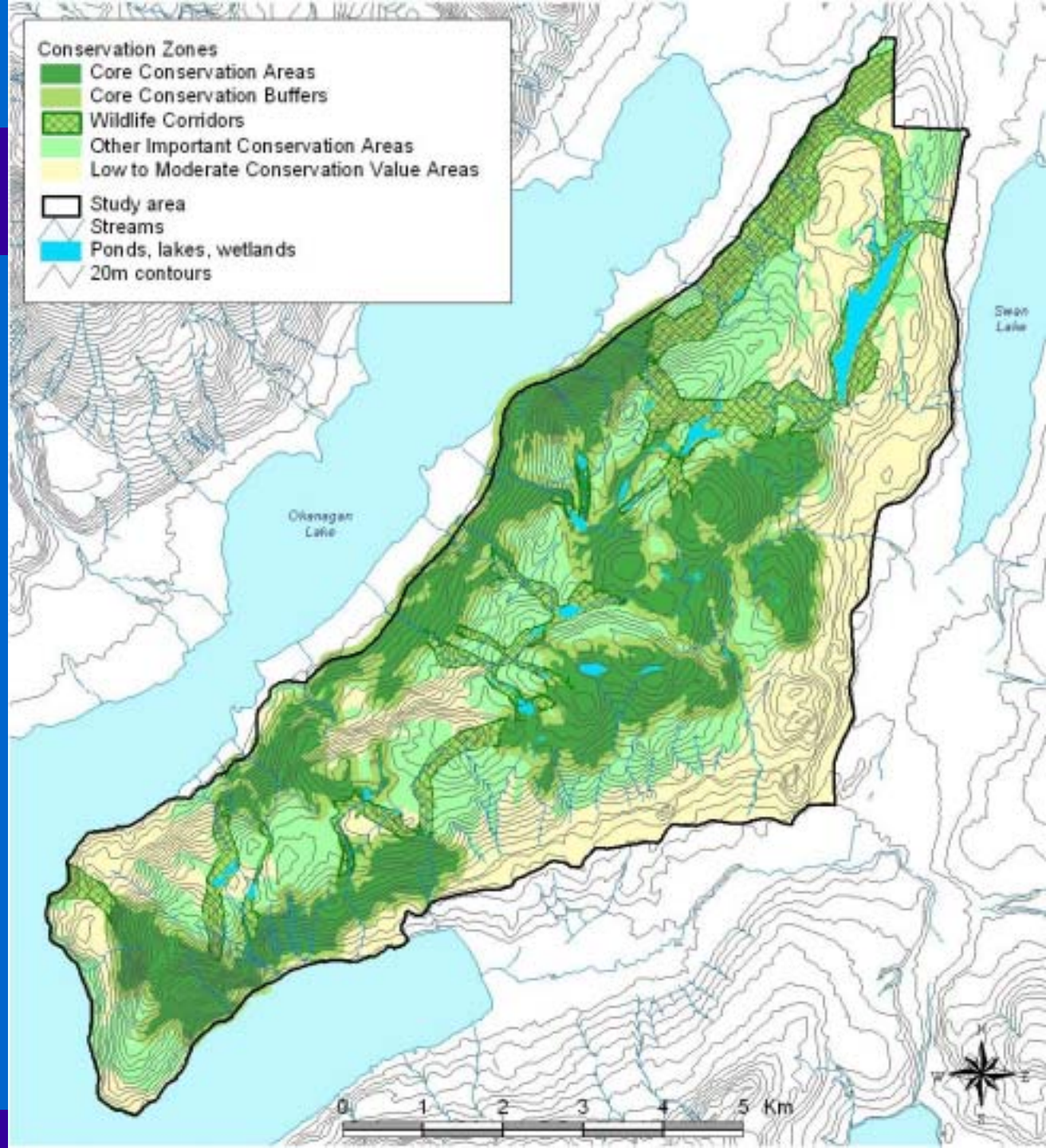




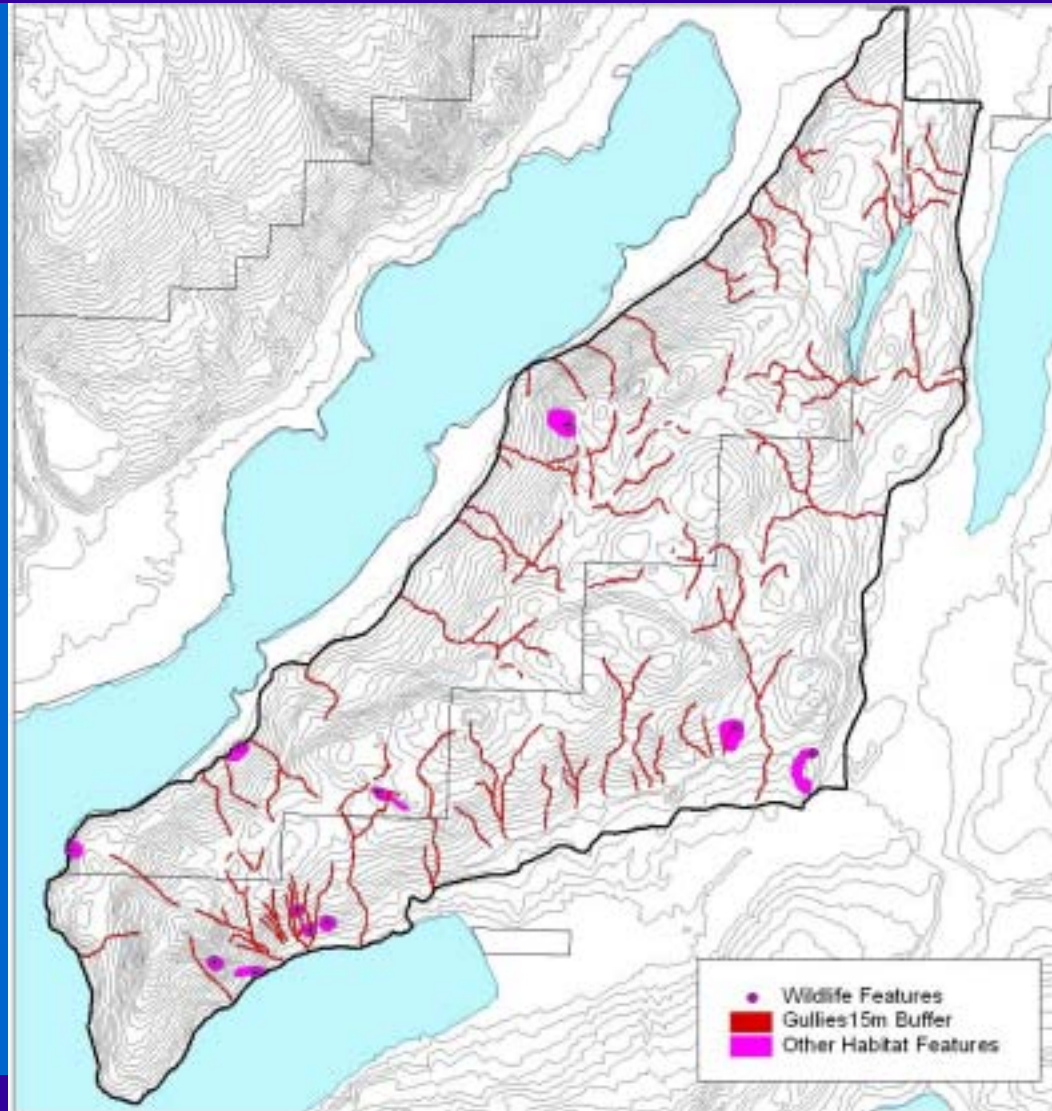
Conservation Zones

1. Core Areas – high concentration of values
2. Buffers around core areas (100m)
3. Wildlife corridors connecting core areas & outside of study area
 - riparian and warm aspects, some restoration may be required
4. Other important conservation areas
5. Low to moderate value conservation areas

Priority Conservation Areas



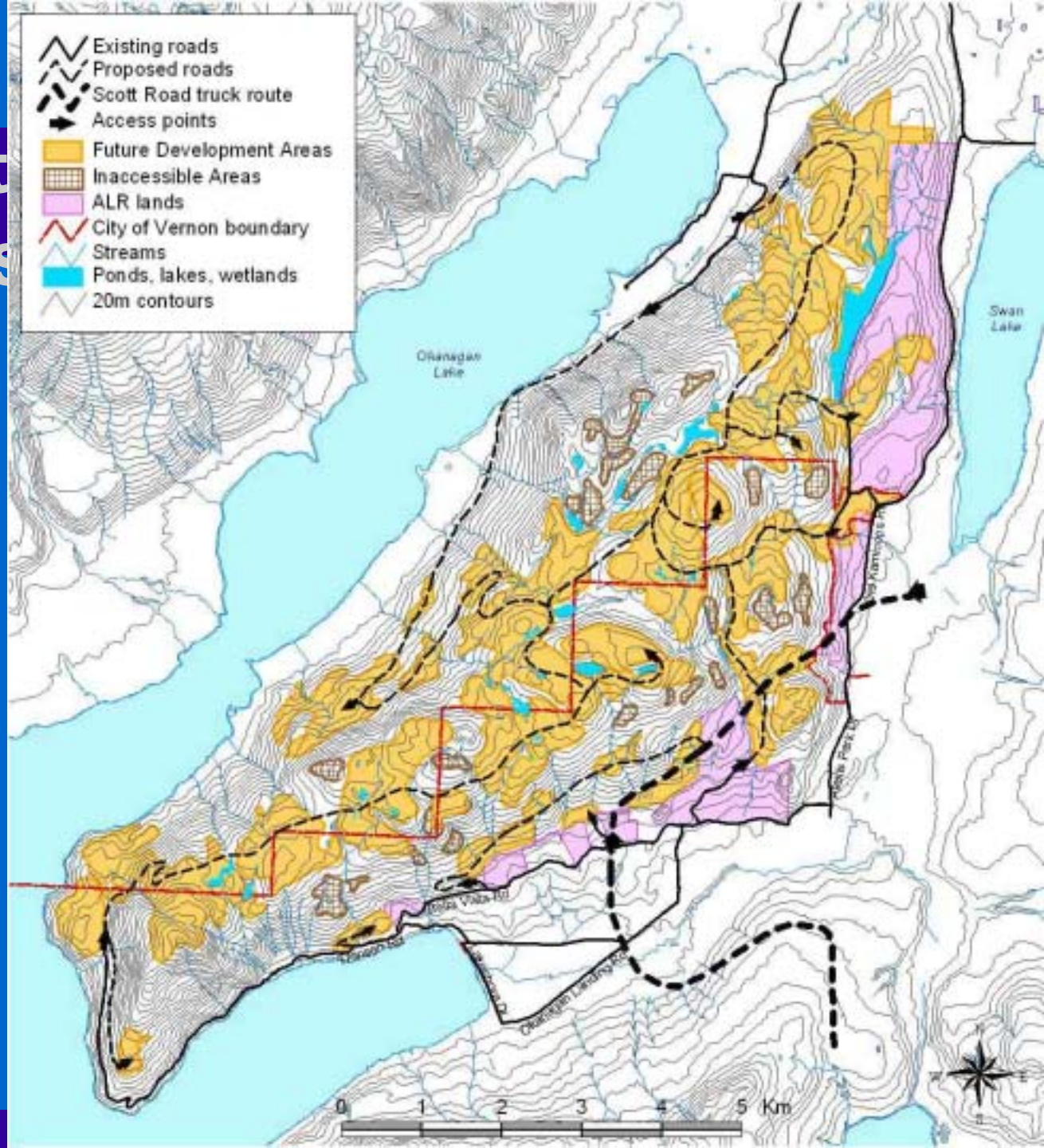
Other Features



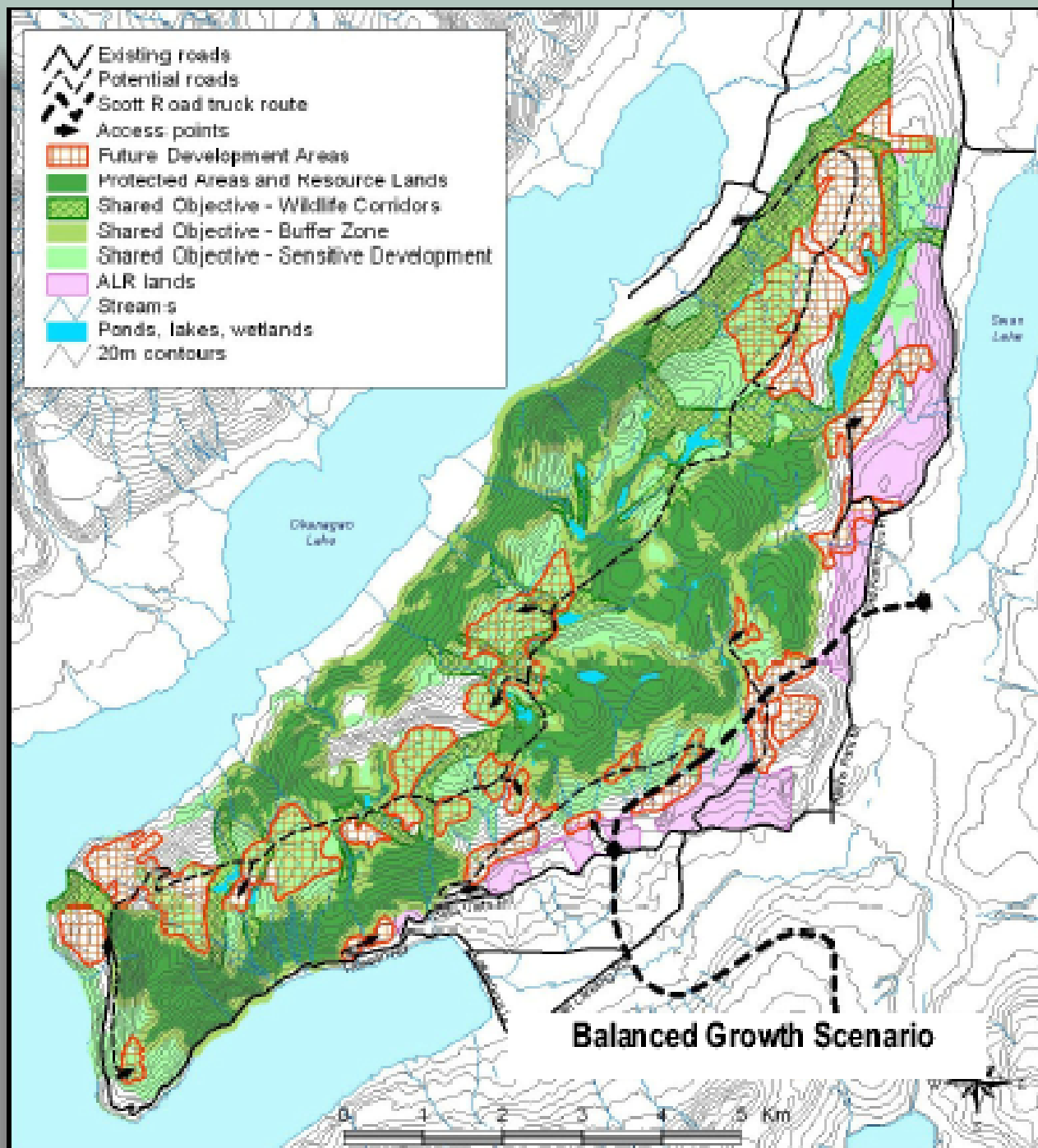
Opportunities for Development

- Existing infrastructure
- Site constraints:
 - Slopes >30%,
 - slope stability (moderate to very high),
 - erosion potential (high and very high)
 - 15m buffer on wetlands and watercourses as per OCP
- Road locations
- Visibility

Development Opportunities



Balanced Growth Scenario





Benefits to Users

- Promote innovative development with lower costs, higher prices, and a marketing advantage
- Streamline development approval
- Provide a unique draw through well-planned system of interconnected green spaces



Environmental Impact Assessments

- Team of professionals
 - team will depend on site values
 - specific expertise
- Obtain digital files
 - TEM (includes slope stability & erosion potential, SEI, wildlife habitat)
- Obtain other inventory information
 - SHIM

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Environmental Impact Assessments

- Generate maps for project area and surrounding area
 - ecosystem map
 - SEI map – also theme showing quality/condition
 - soil erosion & slope stability
 - SHIM

Environmental Impact Assessments

- Develop a field sampling plan
 - identify potential values in the study area from map
 - inventory wildlife species during the appropriate season
 - see lists in SEI document for each Sensitive Ecosystem
 - verify ecosystem mapping
 - for wetlands & riparian – determine hydrology
 - investigate possible areas of slope stability & erosion potential

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Environmental Impact Assessments

- Refine mapping
 - refine and revise SEI & wildlife habitat map at an appropriate scale (often 1:5000)
 - map sensitive ecosystems as separate polygons where possible
 - identify & map smaller ecosystems
 - map other features

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Environmental Impact Assessments

- Develop a conservation plan
 - identify
 - core areas with buffers,
 - wildlife corridors, and
 - other important conservation areas
 - integrate with values in surrounding areas

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Environmental Impact Assessments

- Work iteratively to design & refine site plan
 - identify short and long term effects
 - determine construction schedule & type of equipment to avoid adverse environmental effects
 - identify opportunities for enhancement –
ingrowth, weed treatment, restored hydrology
 - provide mitigation measures for negative impacts

ERM Mapping Tool

- Ecosystem-based Resource Management (ERM) Tool

<http://srmwww.gov.bc.ca/wildlife/whr/sta.html>

- link to download tool and user's guide
- Demo
 - ratings table, SEI map, wildlife habitat map, slope stability map