RDI Resource Design Inc
Forest and Land Planning Services

116 - 845 Denman Street
Vancouver, British Columbia
Canada, V6G 2L7
(604) 689-3195
ken.fairhurst@rdi3d.com
www.rdi3d.com

RDI Resource Design Inc

Kenneth Barton Fairhurst, Ph.D., RPF

Profile

As natural resources professionals, RDI is dedicated to best practices for integrating resource planning and development in the visual landscape. Our experience spans the entire history of visual resources management from its earliest development in British Columbia. Our involvement has continuously expanded through education, research, teaching, training, and mentoring. In our roles as planners and advisors we seek responsible, practical and fair solutions with integrity, independence and due diligence to achieve the designated visual quality objectives.

Academic History – K. B. Fairhurst, Ph.D, RPF

Ph.D., 2010
Univ. Brit. Col., Faculty of Graduate Studies (Forestry)
Research and dissertation on comprehensive multi-functional landscape planning
M.Sc. Faculty of Forestry, 1980
Park and Recreation Resources
Univ. Brit. Col., Forest Resources Management
Thesis on outdoor recreation use planning in urban park settings

Professional Associations – K. B. Fairhurst, Ph.D, RPF

Association of B.C. Professional Foresters
Western Forestry Contractors Association
Collaborative for Advanced Landscape Planning, Univ. Brit. Col.

Professional History – K. B. Fairhurst, Ph.D, RPF

1996 ongoing	**Professional Consultant / President / Co-owner** RDI Resource Design Inc, Vancouver BC Canada Environmental Assessment / Visual Resources Planning and Management
2014 ongoing	**Adjunct Professor, Department of Forest Resources Management** Faculty of Forestry, University of British Columbia, Canada
2014 to 2015	**Visual Resource Management Instructor, Forestry 424** Visual Planning and Simulation Module Department of Forest Resources Management Faculty of Forestry, University of British Columbia
2007 to 2010	**Co-Instructor, University of British Columbia** Forestry 491, Department of Forest Resources Management, Faculty of Forestry, University of British Columbia
1985 to 1996	**Visual Landscape Specialist, Vancouver Forest Region** British Columbia Ministry of Forests
1984 to 1985	**Landscape and Timber Operations Forester** Alberta Forest Service, Alberta Canada
1980 to 1983	**Visual Landscape Specialist, Vancouver Forest Region** British Columbia Ministry of Forests
1983 to 1983	**Consulting Services in Regional and Urban Forestry** Outdoor Recreation, and Visual Resource Management

RDI's Categories of Accomplishments

Accomplishments cover the complete spectrum of Environmental Assessment and Visual Resource Management Fields:

1. **Environmental Assessment**
2. **Visual Impact Assessment**
3. **Integrated Visual Design / Total Resource Planning**
4. **Visual Resource Strategies, Practices, and Guidelines**
5. **Visual Landscape Inventory**
6. **Information and Technology Transfer**
7. **Professional Reviews, Audits, and Investigations**
8. **Research in Visual Management and Planning**

The following is a selected list of both recent and historically significant accomplishments:

1. Environmental Assessment

Advisian - WorleyParsons Group, 2016. Senior Technical Advisor to the International Visual Assessment Team.
AMEC Foster Wheeler, 2015. 3-D Visual Simulation of terminal, plant, and transmission line facilities at Woodfibre, BC as a key component of the Environmental Assessment Application.
WorleyParsons Canada, 2015. 3-D visual simulation of the LNG Canada (Shell) port facility expansion as a key component of the Environmental Assessment Application. Applied a unique evaluation technique which provided for comparative visual impact assessment of facilities not possible with current approaches in BC.
Run of River Power, 2011. 3-D Visual simulation and visual impact assessment of the independent power producers' proposed hydro-electric developments and transmission line options (Skookum Power Project).
North West Cascade Power, 2007. 3-D Visual simulation, visual impact assessment and comparative evaluation of the proposed Pitt Power Cluster transmission line options.
BC Ministry of Highways, 2005. 3-D Visual simulation and animations of the Culliton Bridge and the South Fraser Connector route. Fixed viewpoints and aerial fly-around animation of Culliton Bridge and the Sea-to-Sky Highway 99.
Canadian Natural Resources, 2005. 3-D visual simulation and animations of landform construction, closure and re-vegetation of the proposed Horizons Oil Sands project in northern Alberta. Animations were prepared to assess the intake structures as they would be seen travelling along the river.
Suncor Energy, 2003. 3-D visual simulation and animation of the Millennium oil sands landform structures in Alberta and their reclamation over the course of 70 years.

2. Visual Impact Assessment

BC Timber Sales, Kamloops Business Area, 2010 to current. Principal visual assessment expert for 6 years' of continuous contracts, completing 12 or more VIAs each year in various areas of the BC interior. The successful bidder in 2017, RDI has a renewable contract with BCTS for the next 6 years. Projects involved 3-D visual simulation, impact assessment following provincial guidelines, cutblock design and forest management recommendations to meet Provincially mandated Visual Quality Objectives.
Interfor Corp, 1996-2017. Interfor is a repeat client since 1996 with over 24 major VIA's and peer views completed. Projects required 3-D visual simulation, visual impact assessment following a standardized procedure, cutblock design, and provision of forest management recommendations to facilitate the meeting of Visual Quality Objectives. Projects were in many parts of coastal British Columbia.

3. Integrated Visual Design / Total Resource Planning

BC Timber Sales, Kamloops Business Area, 2013. Tshinakin Creek Integrated Visual Design examined biophysical, economic and engineering constraints and opportunities, designed comprehensive development opportunities conforming to the landscape, set schedules, and produced data to calculate long-term economic flows while meeting visual quality objectives.
BC Timber Sales, Kamloops Business Area, 2010. Foghorn Integrated Visual Design, accessing the entire operable forest, setting schedules with integrated design to meet the VQOs over time.
Houston Forest Products, 2007. Nadina Lake Integrated Visual Design Plan, produced for a mountain pine beetle affected scenic area, accessing the entire operable forest, setting schedules with design integration to meet the VQOs over time.

4. Visual Resource Strategies, Practices, and Guidelines

Interfor Corp., 2005. Produced the TFL 45 South Visual Management Strategy with proposed leniency for visual quality objectives along less-visited coastal waterways. Adopted by Interfor into the Forest Stewardship Plan and approved by the District Manager.
Alberta Cumulative Environmental Management Association, 2003. Developed the Visual Landscape System (VLS) for the oil sands region. The VLS is a comprehensive inventory, planning and design process for visual resources that offers guidance to resource development and cumulative effects to meet desired visual quality targets. The VLS was designed for the integration of forestry, mining, energy, and other types of resource planning and development.
Alberta Forestry, Lands, and Wildlife, 1984-1985. Developed the original concepts of the Visual Landscape Management Strategies in the Province of Alberta. Trained Alberta Forest Service personnel.
BC Ministry of Forests, 1980-1983; 1985-1996. Participated in the original development of the Visual Landscape Management (VLM) program in BC, and applied it in the Vancouver Forest Region as regional specialist. Provided training to Forest Service and industry personnel. Member of planning teams such as the Sea-to-Sky Local Resource Use Plan and Management Plans, and the Meares Island Planning Team.

5. Visual Landscape Inventory

Ministry of Forests, Lands and Natural Resource Operations, 2011-2014 . The Visual Landscape Inventory maps the entire visible landscape as seen from travel corridors (highways, waterways, rivers and lakes), delinating visual sensitivity units, and rating unit each for existing visual condition, visual absorption capability, and visual sensitivity rating. The information is used to recommend Visual Quality Objectives to guide forest operations once established. Recent Examples are:

2013-2014 ,Quesnel Forest District Highway 97 and Quesnel Barkerville VLI Updates.
2012, Northeast (Peace) VLI update.
2011-2012, Okanagan-Shuswap VLI Update: Highways 97A and 97B.
2011-2012, Nechako River and Northern Lakes VLI.

6. Information and Technology Transfer - – K. B. Fairhurst, Ph.D, RPF

Faculty of Forestry, University of British Columbia, 2014 to 2015. Instructor, Visualization Component, Forestry 424, a comprehensive planning course for graduating students.
Faculty of Forestry, University of British Columbia, 2007 to 2008. Co-instructor of Forestry 491, Visualization and Forest Design.
Two-day training courses in Visual Nature Studio, 2008-2011. Aimed specifically at integrating advanced simulation techniques and visual design considerations for forest industry clients, such as for West Fraser Mills and Chartwell Forest Consultants in 2011, TDB Consultants in 2009, and Tyhee Forestry in 2008.
BC Institute of Technology, 2002. Designed the Visual Design training course which was adopted into the regular required curriculum by the Institute. Delivered the 2-day course to students.
BC Ministry of Forests, 2000. Developed and delivered the VIA Training Course for the Ministry's Vancouver Forest Region in 2000. Provided training to Forest Service and industry personnel.

International Conferences, 2001-2017. Presented Visual Design topics at international seminars, training sessions, and conferences in Europe, Australia, and USA.

- **Invited Speaker, Visualization Tools Forum, Portland Oregon, April 19, 2017**. Organized by US Forest Service Region 6, Ken was invited to provide an update on "what's happening in British Columbia. The presentation was this practitioner's quick guide for "**Visualization to meet Visual Quality Effectiveness Obligations in British Columbia**" and is available on www.rdi3d.com on the "About Us" page (Fairhurst-Portland-170421-OK.pdf).
- Developer and presenter, Workshop on Using Visual Nature Studio (2006). **IUFRO International Conference on Patterns and Processes in Forest Landscapes - Consequences of Human Management in Bari, Italy**, September, 2006.
- Organizer and Moderator, **Forum on Visual Resource Management and the Practitioner, International Symposium on Society and Resource Management**, **Vancouver, BC, 2006**.
- Workshop and guest lecturer: **Visualization of Silviculture Treatments to Reduce Fire Hazards in Northern Arizona, 2001**. Coconino National Forest and Northern Arizona University.
- Developer and Instructor, **A Practical Guide for Visually Effective Design of Timber Harvesting. A half-day workshop for the Western Forestry and Conservation Association, 2001. Olympia, WA**.

7. Professional Reviews, Audits, Investigations, Expert Testimony

Forest Appeals Commission, 2016. Accredited Expert Witness for FAC. Victoria, British Columbia.
Babine Forest Products, 2015-2016. Compliance and Enforcement Assessment Report.
Interfor Corp., 2014-2016. Compliance and Enforcement assessment report for Opportunity to be Heard and Forest Practices Review Board.
Ministry of Forests, Lands and Natural Resource Operations, 2009. Compliance and Enforcement assessment report for Opportunity to be Heard.
Interfor Corp., 2008-2015. Peer reviews of Interfor-produced VIAs with provision of design recommendations to meet the VQOs for Handy Creek (2015), Stuart Island, Frederick Arm and Church House in 2013-2014, and Booker Lagoon (2008).

8. Research in Visual Management and Planning - K. B. Fairhurst, Ph.D, RPF

Graduate Dissertation, 2010 entitled: "GEOptics Landscape Apparency: a visual resource indicator and tool for multi-functional landscape planning". The research developed a tool to simplify and improve visual management and planning processes by providing a detailed GIS output layer of quantified landscape risk, and facilitate design of operations with a greater chance of meeting Visual Quality Objectives. Available for download from the UBC Library: https://open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0071267

The RDI website provides additional information and examples, and can be found at www.rdi3d.com

Kenneth B. Fairhurst, Ph.D., RPF
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