

ESSA Technologies Ltd.
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Katherine Bryan

Post-Secondary Education

- DipIT(GIS) Advanced Diploma of Technology in Geographic Information Systems, British Columbia Institute of Technology, 2006-2007
- B.Sc.(Hons) Natural Resources Conservation, University of British Columbia, 2002 - 2006

Technical Skills

- Versed in GIS technology covering spatial modelling, databases, web mapping services, programming, systems management, and cartography

	Proficient	Intermediate	Working
<i>Applications</i>	ArcGIS Desktop, MapServer, Visual Studio 2005, Adobe Photoshop, Microsoft Access, Excel, PowerPoint and Word	ArcGIS Server, Oracle 10g/11g, Microsoft Visio, Bentley Microstation, Eclipse SDK	AutoCAD, PCI Geomatica, FME Workbench
<i>OS</i>	Windows, Mac OS X	Unix	
<i>Language</i>	VB.Net, VBA, SQL, ArcOBJECTS	Java, XML, HTML, PHP	ASP, JSP, JavaScript, Python

Professional Experience

2007-Present **GIS Analyst**, ESSA Technologies Ltd., *Vancouver, BC*

- Spatial data manipulation and analysis with ArcGIS and custom scripting
- Spatial and tabular data importing, querying, and management
- Web mapping in the MapServer environment
- Process documentation

2007 **GIS and Data Technician**, Tsleil-Waututh Nation, Treaty and Lands Department, *North Vancouver, BC*

- Assisted with data management and map production for a bioregional atlas
- Researched and scoped a habitat suitability modelling project for Roosevelt elk in the Indian River watershed
- Other projects included converting field data to ArcGIS shapefiles, arranging map layouts and digitizing points from orthophotos to build a community address database

2006-2009 **VIEW Technology Processor**, IM360 Virtual Services Group, *North Vancouver, BC*

- Digitally edit multiple exposure real estate virtual tour images in Photoshop

- Respond in a timely and attentive manner to custom editing requests

2005 **Field and Lab Technician**, Illinois Natural History Survey, Lake Michigan Biological Station, *Zion, Illinois*

- Conducted field sampling of fish, zooplankton, and benthic invertebrates
- Processed samples and performed data entry into Access databases
- Maintained and fed larval hatchery fish

2003/2004 **Database Technician**, Photography by Linda Oyama Bryan, *Wilmette, Illinois*

- Designed and implemented an image management system
- Scanned, categorized, labelled, and digitally edited over 5000 35mm slides
- Documented project and trained new staff for on-going database maintenance

Select Project Experience

2007-Present **Integrated Information Management System**, *Trinity River Restoration Program*

- Development of a multi-disciplinary database to centralize disparate scientific data relevant to the management of river systems
- Lead the preparation of data modules for the database
- Design and develop custom data management tools for data imports and export analysis

2008-2009 **Decision analysis of alternative invasive weed management strategies**, *The Nature Conservancy of Montana*

- Prepare simulation databases for a spatially-explicit landscape-level model which simulates the spread of invasive weeds across three Montana landscapes
- Produce tabular, graphical and map outputs of results to inform and guide management decisions

2008 **Developing fish habitat models for broad-scale forest planning in the Southern Interior of B.C.**, *BC Forest Science Program*

- Developed a spatial analysis algorithm to predict the occurrence of key fish species in macroreaches of the Thompson Ecological Drainage Unit and quality of habitat at the 1:50000 scale watershed level

2007-2008 **Developing a framework for designating Temperature Sensitive Streams in B.C.**, *BC Ministry of Environment*

- Developed a spatial analysis algorithm to model “temperature sensitive streams” in the B.C. Interior
- Produced a spatial database and output maps which identify streams that have both a high likelihood of thermal changes due to forestry activities and a corresponding high likelihood of impacts to fish communities

2007-2008 **Yukon Habitat Suitability Model**, *Department of Fisheries and Oceans*

- Conducted spatial analysis and data preparation for the development of a spatial model which estimates the suitability of habitat for Chinook salmon in reaches and watershed within the Yukon Territory

Volunteer Experience

- 2006 URISA (Urban and Regional Information Systems Association) 44th Annual Conference, *Vancouver, BC*
- Monitored and assisted with conference sessions, distributed handouts and materials
- 2006 Surrey Natural Areas Partnership's Eco Ranger Program, *Surrey, BC*
- Educated park visitors on the importance of natural areas and parks for wildlife
- 2005 Camosun Bog Restoration Group, *Vancouver, BC*
- Removed non-native species, planted and relocated native species, supervised child volunteers

Awards and Recognition

- URISA BC Pacific Institute of Cartographers Award (BCIT 2008)
- Best Proposal for POCO 2007 Mapping Project (BCIT 2007)
- August and Cristina Crucil Scholarship in Forestry (UBC 2005)
- Golden Key International Honour Society member (UBC 2005)
- Charles and Jane Banks Scholarship (UBC 2005)
- University of BC Scholarship (UBC 2004)
- Undergraduate Scholar Program Scholarship (UBC 2002/2005)
- British Columbia Institute of Agrologists Scholarship (UBC 2002)
- David Thom Scholarship (UBC 2002)