



# **PACIFIC ANALYTICS INC.**

## **Consulting Economists**

### **SUMMARY**

*Pacific Analytics Inc.* is a firm of consulting economists based in Victoria, British Columbia specializing in economic impact analysis, economic modelling and forecasting, and software development. With our long experience in and in-depth knowledge of economic accounting principles, input-output modelling, and database analysis, we take pride in our ability to provide our clients with accurate, reliable and timely results. Creative solutions are our strength, and the success of our work in the international field attests to that strength. We also take pride that many of our major clients return to us to further their research or update their analysis. There is, in our mind, no greater gauge of satisfaction.

### **AREAS OF EXPERTISE**

Established in 1990, *Pacific Analytics Inc.* offers a variety of economic consulting services to business and government clients alike:

#### **ECONOMIC/FINANCIAL IMPACT ANALYSIS**

- Economic, Employment and Tax Impact Assessment
- Input-Output Modelling
- Financial Analysis
- Benefit-Cost Analysis / Multiple Account Evaluation
- Regional Analysis
- Contingent Valuation Analysis

#### **ECONOMIC MODELLING**

- Econometric/Forecasting Models
- Population/Demographic Models
- End-Use Models
- Statistical Models
- Assessment and Allocation Models

#### **SOFTWARE DEVELOPMENT**

- Client-Specific Software (Foxpro, C++, Excel/Visual Basic)

In addition, in order to further our ability to satisfy all our clients' needs, we have established relationships with a number of firms in complementary disciplines, such as surveying, forestry economics, and environmental impact assessment.

## **CLIENT SERVICES**

### **Economic/Financial Impact Analysis**

Estimating the economic impacts of an industrial sector or a business project requires an in-depth understanding of economic accounting and Input-Output analysis. Prior to starting *Pacific Analytics Inc.*, Managing Principal Jim Johnson worked for the BC Ministry of Finance. There he was responsible for estimating the Provincial Economic Accounts and the BC Econometric Model as well as for conducting economic assessments of a variety of projects using the BC Input-Output model.

Since 1990, our firm has undertaken a number of in-depth economic evaluations. Each has brought to the table its own set of problems, each has challenged us, each has concluded with a clear understanding of the issues and a clear picture of the results.

### **Economic**

While with the Ministry of Finance, Mr. Johnson was responsible for the BC Econometric Model, a 400-equation model used in the budgeting process. He was also involved in many other modelling/statistical projects. Since 1990, *Pacific Analytics Inc.* has concluded a number of major modelling projects. At the same time, we have been involved numerous other smaller modelling projects. Our goal is to provide our clients with the most cost-effective solution to their needs.

### **Software Development**

Although software development is not our main focus, many of the projects in which we have been involved have required software extensions. As such, we have developed a strong background in developing client-based software, using database programs (Visual Foxpro), statistical packages (SPSS) and true programming languages (C++ and Visual Basic).

## **PARTIAL LIST OF CLIENTS**

- Babine River Foundation
  - BC Hydro and Power Authority
  - BC Public School Employers Association
  - BC Transportation Financing Authority
  - Capital Regional District
  - Canadian Parks & Wilderness Society (CPAWS)
  - Institute of Chartered Accountants of BC
  - Department of Economic and Regional Development, Canada
  - Guide Outfitters Association of BC
  - Human Resources Development Canada
  - Insurance Corporation of British Columbia
  - Ministry of Advanced Education, BC
  - Ministry of the Attorney General, BC
  - Ministry of Community Development, Cooperatives & Volunteers, BC
  - Ministry of Education, BC
  - Ministry of Employment & Investment, BC
  - Ministry of Finance, BC
  - Ministry of Skills, Training and Labour, BC
  - Ministry of Small Business, Tourism and Culture, BC
  - Ministry of Sustainable Resource Management
  - Ministry of Transportation, BC
  - North Coast Backcountry Caucus
  - North Okanagan Regional District
  - Rainforest Action Network
  - Tourism BC
  - Workers' Compensation Board of BC
  - Yukon Department of Tourism
- International Clients**
- Education Queensland, Australia
  - Jamaica Tourist Board
  - Planning Institute of Jamaica
  - Organization of American States
  - Res & Co., London, England
  - Enterprise Oil (UK) Brazil Affiliate
  - Enterprise Oil (UK) Ireland Affiliate
  - Emerging Markets Economics (UK)
  - Scott Wilson (UK)

# **ECONOMIC/FINANCIAL IMPACT ANALYSIS**

*Pacific Analytics Inc.* has undertaken a range of economic and financial impact analyses for clients in British Columbia and abroad. Our work has focused on developing indices of economic value that are consistent with National Accounting principles and which are in accordance with the requirements of international institutions such as the Inter-American Development Bank and the Organization of American States. A partial listing is presented below.

## **TOURISM AND COMMUNITY DEVELOPMENT PROJECTS**

### **SOUTH OKANAGAN NATIONAL PARK: BASELINE STUDY**

Prepared for Parks Canada, 2005: this project prepared an economic, social and environmental baseline for the proposed Park area and developed a strategy for undertaking the next phase of the project: the SEE Impact Assessment.

### **ECONOMIC IMPACTS OF EXPANDING WATERTON LAKES NATIONAL PARK**

Prepared for the Canadian Parks and Wilderness Society, 2005: this project identifies the economic costs and benefits associated with extending the Waterton National Park into the Flathead region of southeast British Columbia. The project reviews the potential loss in logging activity, the potential gains in commercial and recreational tourism, and the spin-off socio-economic impacts on local communities from potential in-migration due to being located close to a National Park.

### **ECONOMIC POTENTIAL OF THE SEA-TO-SKY LRMP**

Prepared for the Sea-to-Sky LRMP Table, 2004: this project examined the economic potential of wilderness tourism in each of 19 polygons over the next twenty-five years. Using detailed financial data from a variety of tourism operations, the expected increase in GDP, employment and provincial government revenues were projected to illustrate the greater importance of tourism vs forestry in the planning area.

### **ECONOMIC IMPACTS OF THE BC COASTAL SUSTAINABILITY SCENARIO**

Prepared for Rainforest Action Network, 2004: this project examines the past, present and potential economic value of land-using industries (forestry, mining, tourism, First Nations activities) in coastal BC and proposes a new economic vision for the Coastal economies.

### **ECONOMIC IMPACTS OF NORTH COAST NATURE-BASE TOURISM**

Prepared for the North Coast Backcountry Caucus, 2003: this project identifies the economic impacts of multi-day, nature-based tourism operations on the North Coast. Financial statements were collected from a variety of operators on the North Coast and a comprehensive Input-Output assessment of the economic impacts estimated. The results were presented to the North Coast LRMP Table for use in making land use decisions for the North Coast.

### **SOUTH COAST SUSTAINABILITY STUDY (JAMAICA)**

Prepared for the Planning Institute of Jamaica (PIOJ) in association with Scott Wilson (UK), 2001-2002: this project prepared a feasibility plan for tourism development and protected area management on the Jamaican South Coast, and designed of institutional framework and implementation plan to facilitate greater economic development. Responsibilities included preparing a tourism market assessment and conducting an economic/financial evaluation (including shadow price and contingent valuation assessment) in accordance with Inter-American Development Bank specifications.

### **ECONOMIC VALUE OF WILDERNESS TOURISM IN BRITISH COLUMBIA**

Prepared for Tourism BC, 2002/2003: based on financial information provided by a large group of wilderness tourism operators throughout BC, this project when completed will assess the regional economic value (GDP, employment, tax contribution, etc.) of the wilderness tourism sector in BC.

### ***ECONOMIC ASSESSMENT OF THE BABINE RIVER CORRIDOR PARK***

Prepared for the Babine Foundation, 2002/2003: this project examined the economic importance of wilderness tourism activity (steelhead fishing, hunting, whitewater rafting) taking place within the Park and compares this against projected stumpage revenue from nearby forestry operations. The study also surveyed approximately 600 steelhead fishermen as to their spending characteristics traveling to and from the Park and their ancillary purchases elsewhere in British Columbia.

### ***ECONOMIC ASSESSMENT OF THE LILLOOET L.R.M.P.***

Prepared for the Wilderness Tourism Association of British Columbia, 2001, updated 2002: this project examined the Lillooet Land and Resource Management Plan (LRMP) comparing potential tourism values against potential resource (logging and mining) benefits.

### ***IMPACTS OF PROVINCIAL FUNDING ON THE VILLAGE OF GOLD RIVER***

Prepared for the Ministry of Community Development with CrossPoint Strategies, 2000: this project estimates the expected impact on the government's General Revenue Fund stemming from a support program implemented after the closure of the Gold River pulp mill.

### ***TOURISM IN JAMAICA: AN ECONOMIC ANALYSIS OF 1997***

Prepared for the Jamaica Tourist Board (JTB), 1998: an update of a study completed for the Organization of American States in 1994/1995. It estimates direct, indirect and induced impacts on GDP, employment, imports, foreign exchange earnings and government fiscal revenues. A major thrust of the update is the determination of regional impacts and the development of a Windows-based (C++) impact simulation program for use by JTB and government staff.

### ***TOURISM 10 YEAR MASTER PLAN FOR JAMAICA***

Prepared for the Office of the Prime Minister, Government of Jamaica in collaboration with Res & Co. (Lead Consultant, London, England), 1998: this study defined the framework for a sustainable, community-driven expansion of Tourism in Jamaica over the next ten years. Our work primarily focused on defining the economic parameters of the tourism industry on a regional basis and with the development of import substitution and investment strategies.

### ***ECONOMIC IMPACTS OF TOURISM IN JAMAICA***

Prepared for the Organization of American States and the Government of Jamaica, 1994 - 1995: this project was a detailed benefit-cost analysis of the contribution of tourism and each of its sub-sectors to the Jamaican economy. The study followed strict National Accounting procedures by constructing Input-Output tables for each tourism sub-sector and linking these to the Jamaican Input-Output model. Particular emphasis was placed on estimating foreign exchange earnings and the backward linkages to the Island's indigenous industries. The computer models developed for this project are now used by the Jamaican statistical agency (STATIN) as part of their National Accounts estimation.

### ***TOURISM SATELLITE ACCOUNT FOR BRITISH COLUMBIA***

Prepared for the BC Ministry of Tourism and the Federal Department of Economic and Regional Development, 1991/92: this project estimated the economic impacts and supply-side characteristics of the Tourism Industry in British Columbia. It included a financial survey of approximately 2,500 accommodation, recreation and restaurant facilities throughout the Province, as well as the extensive use of administrative data (hotel tax, liquor purchase, liquor and retail tax, etc.) to estimate indirect and induced (spin-off) impacts. This innovative analysis won the International Travel and Tourism Association's award for "Best Tourism Research" in 1992.

### ***YUKON DEPARTMENT OF TOURISM-MANAGEMENT PLAN***

Prepared for Yukon Department of Tourism, 1991: this report reviewed the availability and quality of tourism-related data existing in the Yukon, and presented to the Department of Tourism a four year management plan to develop their own set of Tourism Satellite Accounts.

### ***GOLF INDUSTRY IN BC: FINANCIAL RESULTS & ECONOMIC IMPACTS***

Prepared for the Ministry of Tourism, 1992: this study focused on estimating the economic and financial impacts of the Golf Industry in British Columbia. An integral part of the study was the estimation of

impacts on a regional basis and the effects on individual communities. This is the first study in British Columbia that provided strong quantitative evidence of the uneven contribution of tourism to regional development.

## **INDUSTRY, LAND AND RESOURCE STUDIES**

### **FINANCIAL ASSESSMENT OF POTENTIAL OFFSHORE OIL AND GAS IN BC**

Prepared for Royal Roads University and Western Economic Diversification Canada in conjunction with G.E. Bridges and Associates, 2003: this project is examining the threshold size of viable offshore oil and gas faculties in Hecate Strait and is preparing revenue and cash flow projections for use in further socio-economic analyses of potential development.

### **SOCIO-ECONOMIC BASE CASE FOR THE MORICE LRMP**

Prepared for the Ministry of Sustainable Resource Management, 2003: this project developed a comprehensive profile of the socio-economic conditions in the Morice Timber Supply Area and identifies the links the various industrial sectors in the Morice have with the land base. The report is submitted to the LRMP Table and used to guide decision-making regarding land use allocation.

### **ECONOMIC IMPACTS OF THE GUIDE OUTFITTER INDUSTRY IN BC**

Prepared for the Guide Outfitters Association of British Columbia, 2003: this project is developing a comprehensive database of guide outfitter financial, operational, and hunting characteristics and their associated economic impacts. The structure of the database enables one to extract the data for any selection of outfitters for any area within the province.

### **FINANCIAL & ECONOMIC IMPACTS OF OFF-SHORE OIL IN IRELAND**

Prepared for Enterprise Oil (UK) in Dublin, 2001: this project estimated tax flows to Irish and county governments and economic benefits (GDP, employment, net foreign exchange earnings) to the economy of the construction and operation of a \$US 400 million off-shore oil platform slated for construction in 2004.

### **FINANCIAL & ECONOMIC IMPACTS OF OFF-SHORE OIL IN BRAZIL**

Prepared for Enterprise Oil (UK) in Rio de Janeiro, 2001: this project estimated tax flows to Brazil and Rio State governments and economic benefits (GDP, employment, net foreign exchange earnings) to the economy of the construction and operation of a \$US670 million off-shore oil platform slated for construction in 2002.

### **CRITICAL REVIEW OF GREENHOUSE GAS MODELLING RESULTS**

Prepared for the Ministry of Employment & Investment in conjunction with Bridges and Associates, 2000: this project examined the micro and macro economic impacts on the BC economy of meeting Canada's Kyoto Protocol obligations. The analysis reviewed the structure, constraints and input assumptions of each model in terms of their viability for estimating provincial impacts. It then critiqued the results for BC and provided a set of steps the province ought to undertake before developing a final policy response.

### **BC CHECK-UP**

Prepared for the Institute of Chartered Accountants of BC in conjunction with Chisholm & Associates, 2000, 2001, 2002: BC Check-Up is an annual publication of the Institute profiling BC as a place to live, work and invest. Performance indices for each component are developed for BC, Alberta, Saskatchewan, Manitoba, Ontario and Canada and BC's performance is then compared and contrasted against the performance of the other regions.

### **ECONOMIC PROFILE OF THE TRANSPORTATION INDUSTRY IN BC**

Prepared for the ICBC in conjunction with Semmens & Adams, 2000: this project provided a profile of the vehicle-based transportation industry in BC including detailing regional characteristics, economic impacts, and a profile of driver attributes. The project also included an assessment of the trucking industry in the year 2005 vis-à-vis its potential competitors.

# **Economic Modeling**

*Pacific Analytics Inc.* has undertaken several very large, complicated modelling/forecasting exercises in British Columbia and Australia. In addition, we have prepared a number of basic models, which despite their simplicity fully satisfied our clients' needs. The following is a partial list of projects.

## **EDUCATION - RELATED**

### **TEACHER SUPPLY & DEMAND MODEL & REPORT: QUEENSLAND**

Prepared for Education Queensland, Australia, 1996 - 2001: this project adapted and extended the *Teacher Supply and Demand Model: BC* to incorporate data from the State of Queensland. The model structure is now the proposed standard for estimating teacher supply and demand in all States within Australia. At the request of Education Queensland, the model now incorporates a district-level wage-forecasting component. Education Queensland commissions a Report highlighting a base case forecast of teacher supply/demand each year.

### **TEACHER SUPPLY & DEMAND MODEL & REPORT: BRITISH COLUMBIA**

Prepared for the BC Teacher Supply and Demand Committee, 1992 - 1996: development of the model required the processing of ten years of teacher characteristic data (some 350,000 records). It included an innovative statistical approach (binary-choice theory and logistic modeling) for analyzing historical trends and projecting future characteristics of teachers. The first version of the model was developed in DOS using FoxPro. It then evolved as a C++ coded model with both a Windows and a Macintosh interface. Until 1997, a 20 year forecast of sub-regional supply and demand - *Teacher Supply and Demand to the Year 201X* - was commissioned each year by the Ministry of Education. A change to the type of information collected on teacher characteristics has inactivated the model.

### **STUDENT ENROLLMENT FORECASTING MODEL**

Prepared for the Ministry of Education, 1995, 1996: using standard cohort-survival methodology, this model (coded in C++) projected student enrollment for each school district out 10 years. A change to the type of information collected on teacher characteristics has inactivated the model.

### **AVERAGE SALARY, COUNT AND COST GRIDS**

Prepared for the BC Public School Employers Association, 1995: in 1995, the BCPSEA was considering instituting a province-wide common salary grid. This project took detailed salary and classification data for each teacher in the province. It estimated an average salary grid that satisfied specific requirements (e.g., no teacher would have a lower salary).

### **AN ANALYSIS OF BCTF BARGAINING PROPOSALS**

Prepared for the BC Public School Employers Association, 1996: in response to proposals put forward by the BC Teachers' Federation, this project updated the average salary grids that were estimated in a previous project. The results were then used to assess the monetary costs of each proposal.

## **OTHER ECONOMIC MODELLING STUDIES**

### **THE ECONOMIC IMPACTS OF BC HYDRO'S POWER SMART PROGRAMME**

Prepared for BC Hydro in conjunction with G.E. Bridges and Associates, 2005: this project examined the employment impacts of 21 Power Smart programmes. Each programme provides a subsidy to an industrial, commercial or residential customer to install energy-saving measures. Employment is generated through the construction phase as well as through increased spending derived from energy savings.

### **PROVINCIAL GASOLINE TAX MODEL**

Prepared for the Ministry of Transportation, 2004: this project required the development of a comprehensive model (in Excel using Pivot Tables) estimating the number of vehicles by vehicle class, fuel type and regional district and applying fuel efficiency and annual mileage estimates in order to estimate the demand for various fuels in the province and, residually, the level of gas taxes collected by region.

### **ECONOMIC IMPACTS OF HOMELESSNESS IN CANADA**

Prepared for Human Resources Development Canada (HRCD) in association with Eberle & Associates, 2001–2002: this project is developing a statistical methodology for assessing the costs of homelessness in terms of additional health, social service and criminal justice requirements. Phase II of this project will be to implement the proposed methodology.

### **IMPACTS OF THE WCB NON-SMOKING REGULATIONS**

Prepared for the Workers' Compensation Board (WCB), 2001: this project assessed the economic/health costs and benefits of prohibiting smoking in all restaurants, bars, and cabarets throughout the province. The results were integral to a final decision by the WCB to re-introduce its no-smoking policy.

### **ECONOMIC IMPACTS OF COMPETITION IN THE AUTO INSURANCE MARKET**

Prepared for ICBC, 2000: this project critiqued an econometric model and report commissioned by the Insurance Bureau of Canada outlining the advantages of privatizing auto insurance in BC. The critique in part involved estimating the impacts on the BC economy of various changes to the structure of insurance.

### **REGIONAL IMPACTS OF ICBC**

Prepared for ICBC, 2000: this study measures the direct, indirect and induced GDP and employment impacts of regional ICBC spending on 21 industry groupings. The software, using the large aggregation BC Input-Output Model, is designed to permit ICBC to update the results every fiscal year.

### **LION'S GATE BRIDGE DIVERSION RATE EVALUATION**

Prepared for the BC Transportation Financing Authority, 1998: using contingent valuation techniques, this project estimated expected diversion rates away from the Lion's Gate Bridge given a range of toll pricing. Results were estimated in FoxPro and SPSS.

### **JUSTICE OF PEACE WAGE ASSESSMENT**

Prepared for the Ministry of Attorney General, 1997: this project prepared a simple, regional wage implementation model (in Visual Basic), which the Ministry uses to set JP wages.

### **SUB-REGIONAL INDUSTRIAL EMPLOYMENT IN BRITISH COLUMBIA**

Prepared for Human Resources Development Canada, 1995: this project constructed a database (1986 to 1994) of labour force activity for thirty regions of the province based on unpublished Statistics Canada data and Taxation statistics. Included in the database were estimates of employment by gender and by 12 age cohorts for 19 different industrial sectors. The data are accessed through a Windows-based utility **POPular Views™** (developed internally by *Pacific Analytics Inc.*). This allows the user to view, print or cut-and-paste any combination of years, geography, age, or industrial grouping as well as to create custom tabulations as desired.

# Software Development

Software development is not a main focus of *Pacific Analytics Inc.* Nevertheless, our work in economic impact analysis and economic modelling has provided us with a strong background in programming, particularly using Visual Foxpro and C++.

## **CLIENT - BASED SOFTWARE & SYSTEMS ANALYSIS**

### **HARTLAND SYSTEMS REVIEW**

Prepared for the Capital Regional District, 1999: this project entailed a detailed review of all reporting systems presently in use by the Hartland Landfill operations. A report recommending ways to integrate all systems into a single, common reporting framework was the result.

### **ACCOUNTABILITY TRACKING SOFTWARE**

Prepared for the Ministry of Attorney General, 1999: as part of a justice reform initiative designed to divert offenders away from the standard courts system, the Ministry required a software package to track, monitor and evaluate the activities of Community Accountability Programs.

### **1701 VERIFICATION SOFTWARE**

Prepared for the Ministry of Education, 1996 - 2002: each year, all schools must submit to the Ministry of Education a complete listing of students, including demographic characteristics and subject specifications. The 1701 Verification software was developed to assist schools in verifying and correcting their student data. The software is written in FoxPro and functions in both a Windows and Macintosh environment.

### **APPRAISE<sup>TM</sup>**

A joint venture with the School District #71, 1995 - 1999: **Appraise** is a student marking and reporting package that enables a teacher to download student demographic data from the district mainframe, to track student assignments and to prepare interim and final report cards meeting Ministry of Education standards. Programmed in C++, **Appraise** is a fully functional Windows package.

## **INTERNALLY - DEVELOPED SOFTWARE**

### **POPULAR VIEWS<sup>TM</sup>**

An internal exercise of *Pacific Analytics Inc.*, this project (programmed in C++) took data produced for Human Resources Development Canada (see above) and enabled the user to view different "slices" of the results. The software is generic, and we are in the process of applying the software to viewing the Tourism results produced for the Jamaica Tourist Board.



**SUMMARY OF QUALIFICATIONS**

Jim Johnson is Managing Principal of *Pacific Analytics Inc.* and is a specialist in quantitative and financial analysis, computer modelling, econometrics, and input-output analysis. In his earlier career, Jim was Manager of Econometric Analysis and Economic Accounts with the BC Ministry of Finance. Responsibilities included the construction of the B.C. Econometric Model, the development of the Provincial Economic Accounts, and undertaking economic impact assessments using the BC Input-Output Model.

Since starting Pacific Analytics in 1990, Jim has developed and/or overseen the development of a number of software products, as well as constructing econometric, input-output and end-use models.

**POST SECONDARY EDUCATION**

- C. F. A. 1988, Chartered Financial Analyst  
Institute of Chartered Financial Analysts, Charlottesville, Virginia
- M. A. 1980-81, Department of Economics, University of British Columbia  
Specialization: *Natural Resource Economics*  
Extended Essay: *Forestry Development in Developing Countries: The Case of Indonesia*
- B. A. (Honours) 1977-80, Department of Economics, University of British Columbia  
Undergraduate Thesis: *Growth and Structural Change in the Vizcayan Iron Ore Industry, 1840-1900*

**SCHOLARSHIPS AND AWARDS**

- 1992: International Travel and Tourism Research Association (ITTRA) Award  
for: *Best Tourism Research, 1992*
- 1981: Vasa Order of America Grand Scholarship
- 1980: Programme in Natural Resource Economics Graduate Scholarship, Department of Natural Resources, Government of Canada
- 1980: "Best Graduating Essay" Book Prize, Department of Economics, U.B.C.

**PUBLISHED RESEARCH AND ACADEMIC PURSUITS**

- Johnson, J., "*Tourism Satellite Accounts: Some Preliminary Empirical Results*", Tourism Research: Meeting the Needs of Industry, ed. Peter E. Murphy, published by the International Travel and Tourism Research Association (Canada Chapter), 1991
- Johnson, J., "*Income and Standards Of Living: Washington State and British Columbia*", Growth and Co-operation in the Washington State and British Columbia Economies, ed. David Merrifield, Western Washington University Press, 1988
- Scott, A. and Johnson, J., "*Property Rights in Natural Resources*", Progress in Natural Resource Economics, ed. Anthony Scott, Oxford University Press, 1985
- Lecturer in Statistics: Department of Economics, University of Victoria, 1989, 1990

**SUMMARY OF QUALIFICATIONS**

*Michael Chang* has been a Systems Analyst consultant working with *Pacific Analytics Inc.* since its inception in 1990. He is a specialist in computer programming, systems development, statistical analysis and systems maintenance. Michael has over fifteen years of experience in programming and has a well-deserved reputation for clear, precise coding and careful documentation. He has been directly responsible for the development of a number of very large models programmed in Visual C++ and Visual Foxpro.

**POST SECONDARY EDUCATION**

B. SC. (Honours) 1985, Math and Computer Science, University of Victoria

Diploma 1988, Finance and Accounting, Camosun College, Victoria

**SUMMARY OF QUALIFICATIONS**

*Wayne Hoyle* is an Associate Research Consultant with Pacific Analytics, having joined the firm in 2004. Wayne has brought to Pacific Analytics an extensive background in data research and analysis and has been intimate involved in a number of socio-economic studies undertaken by Pacific Analytics over the last several years, including assisting in the recently released “*Revitalizing British Columbia’s Coastal Economy: A New Economic Vision for the North and Central Coast and Haida Gwaii*”, as well as in a major study assessing the socio-economic implication on the forest and tourism sectors of extending Waterton Lakes National Park into the Flathead region of BC..

**POST SECONDARY EDUCATION**

M. SC. Natural Resource Management, 1993, Simon Fraser University

B. SC. Environmental Physics, 1987, University of Alberta