

A Tale of Two Provinces: Surveys of the Reclamation and Restoration Economies in Alberta and British Columbia

Chris Powter – Enviro Q&A Services

Richard Dixon – RASAC

Nicolas Mansuy – Canadian Forest Service

Renee Lapointe – Canadian Wildlife Service

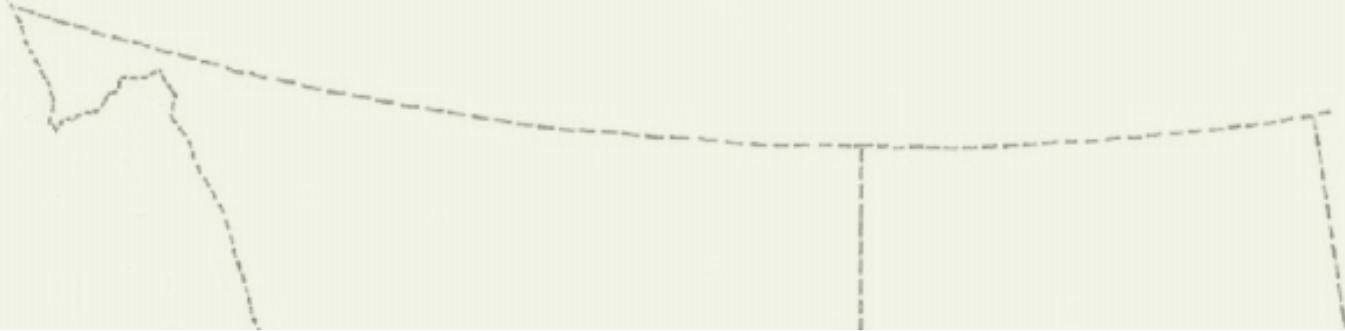
David Polster – Polster Environmental Services



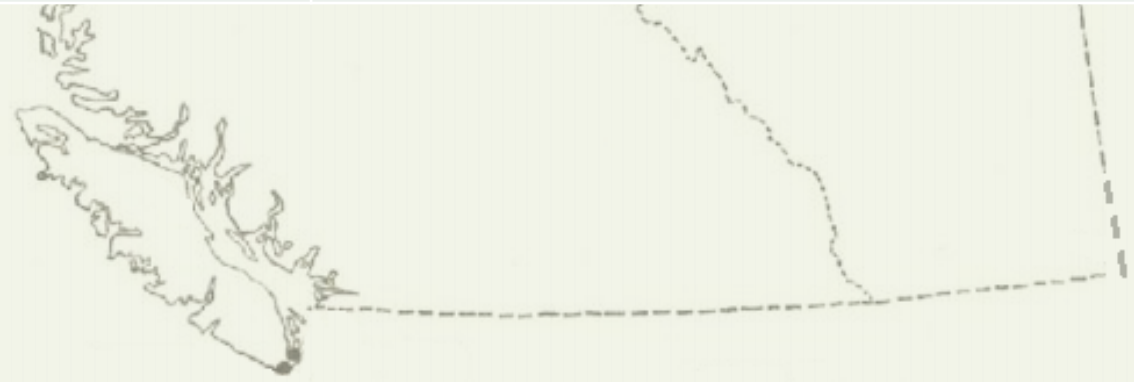
Potential Reclamation Workload

\$2.795B

\$31.78B



| BC | AB |
|---|---|
| Funder – Canadian Wildlife Service | Funder – Canadian Forest Service |
| Supporters CLRA – BC Chapter SER (Society for Ecological Restoration) | Supporters CLRA – Alberta Chapter SER (Society for Ecological Restoration) ESAA (Environmental Services Association of Alberta) |





| | BC | Alberta |
|---------------------|--|--|
| Reclamation | Same industry types as AB | CRR Specified land |
| Restoration | Same types as AB plus BC-specific items, including Caribou habitat restoration; Parks / protected areas / regional parks, and Fire Smart areas | Urban naturalization and forestry; seismic lines; revegetation of forested areas; habitat enhancement (terrestrial, wetland, or aquatic); wetland mitigation or compensation; compensation lakes; carbon offset planting |
| Income | The value of funds received to conduct R&R activities in a given year (e.g., contracts, grants, sales, membership fees). | |
| Expenditures | The value of funds spent on R&R activities in a given year (e.g., costs for staffing, contracts, subcontracts, grants, purchases), which may come from internal funds or flow through from contract or grant funds received | |





NOTES

Sample size is low – 112 in Alberta and especially in BC at 32

Therefore, results are indicative rather than true representations of the R&R economy

BC survey done in 2020 BUT asked respondents to answer questions for 2019 FY to allow comparison with Alberta survey

Data in reports are # responses; showing % responses here to allow for comparison between the provinces

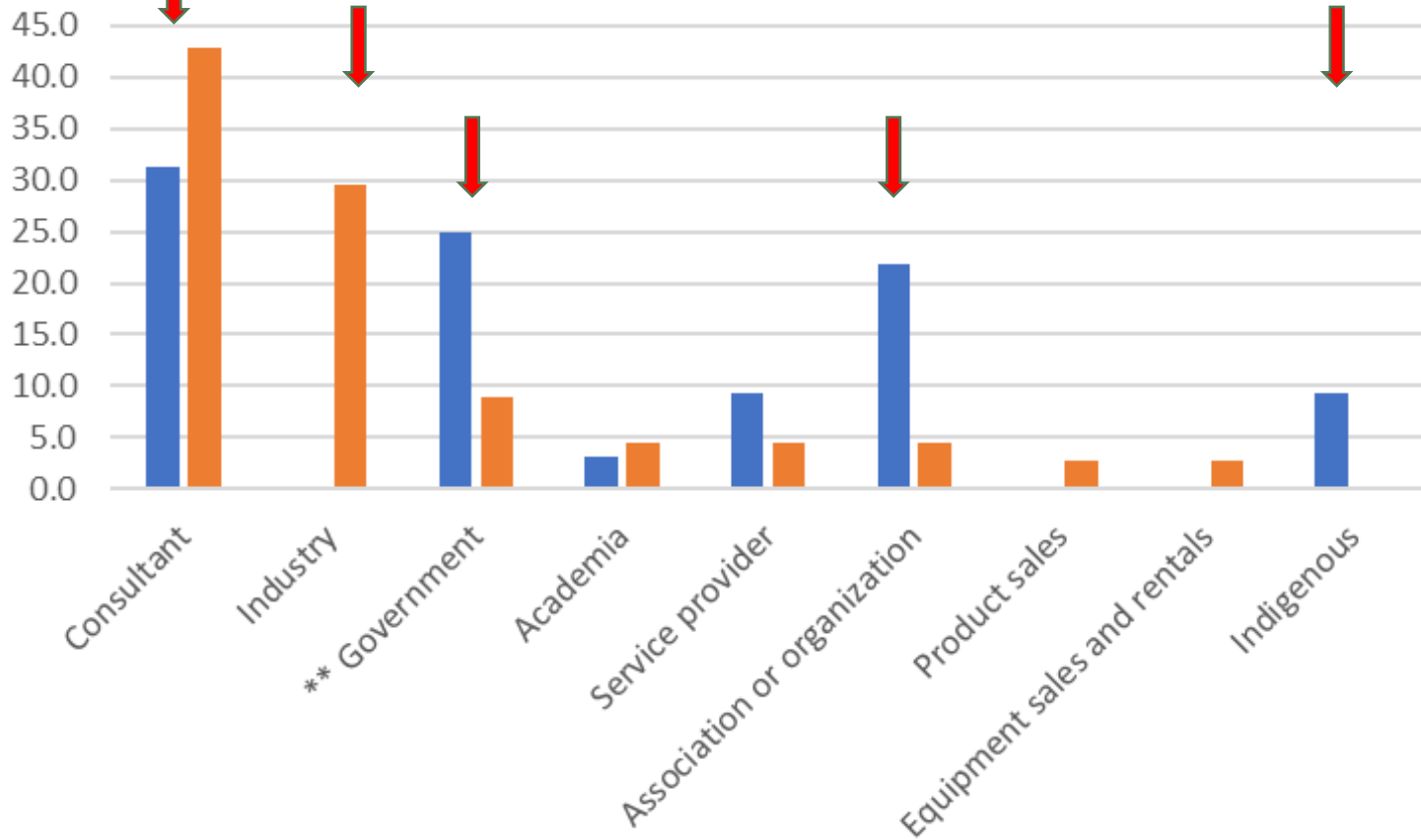
Survey questions were somewhat different based on province (*); therefore, a 0% response doesn't necessarily mean 0% would have selected that response if available

Some survey responses were aggregated to allow for comparison (**)

In all the charts, BC is blue and Alberta is orange



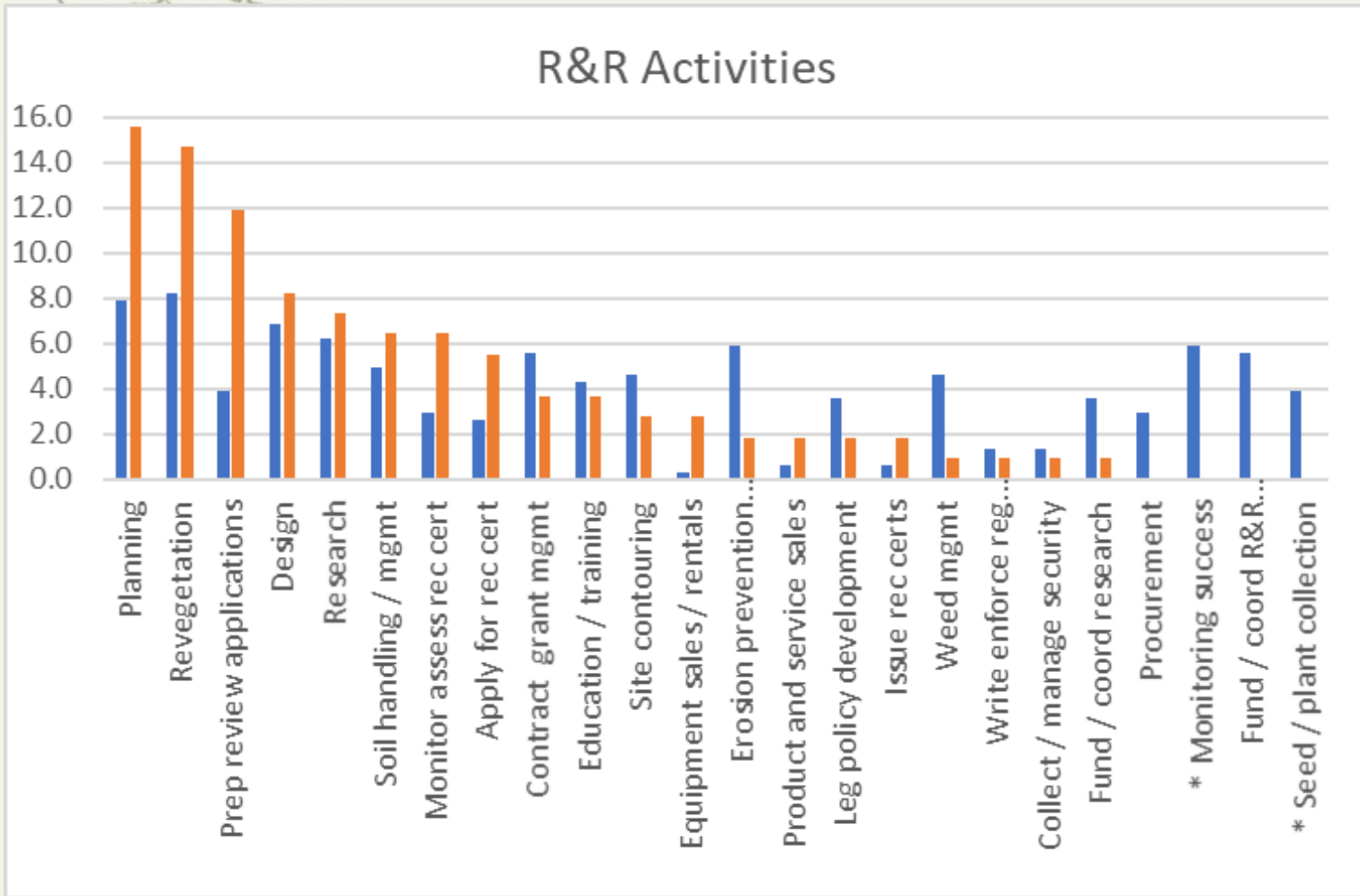
Survey Respondents





Upstream oil and gas (AB) and mines (BC) are the main reclamation types

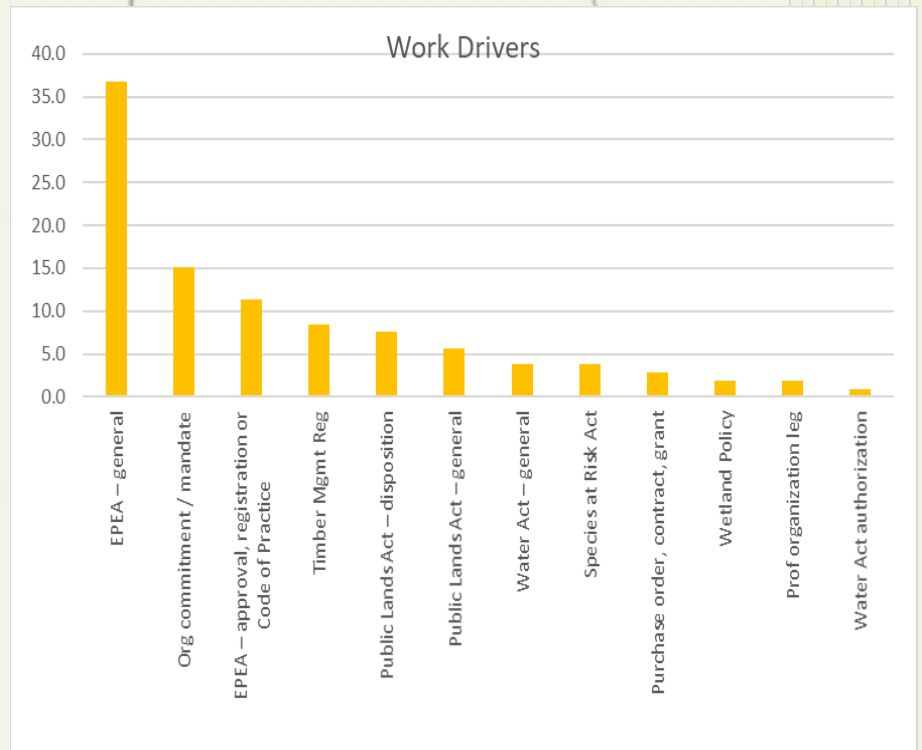
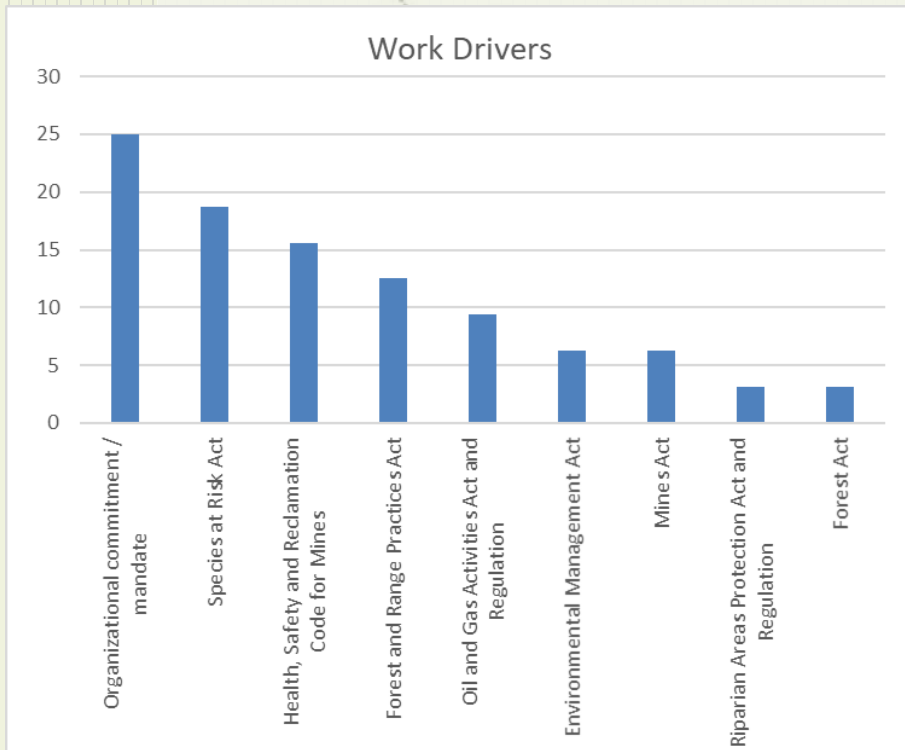
Habitat enhancement is the main restoration type in BC and is tied with Wetland mitigation in AB



We have a lot of skills across many disciplines

Emphasis on office work shows we have evolved from Doers to Planners and Managers





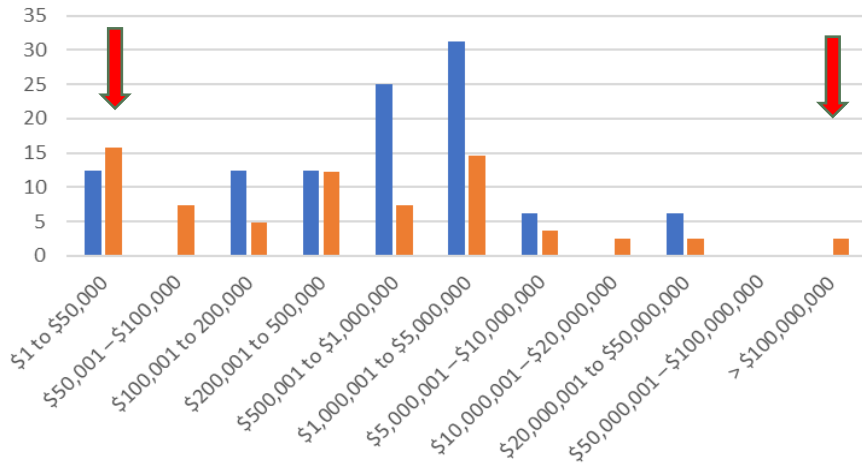
Legislation is a key driver of R&R work in both provinces but in BC organizational commitment/mandate was the primary one, likely reflecting the number of organization respondents

| | BC | AB |
|-------------------------------|---------------------|--------------------|
| # Staff | 1,522 0 to 1,300 | 2,056 1 to 400 |
| % <20 staff | 92 | 80 |
| # FTEs | 419 <1 to 325 | 1,488 <1 to 150 |
| # orgs with Indigenous FTEs | 8 | 19 |
| Staff levels change over year | 55.6% | 45% |

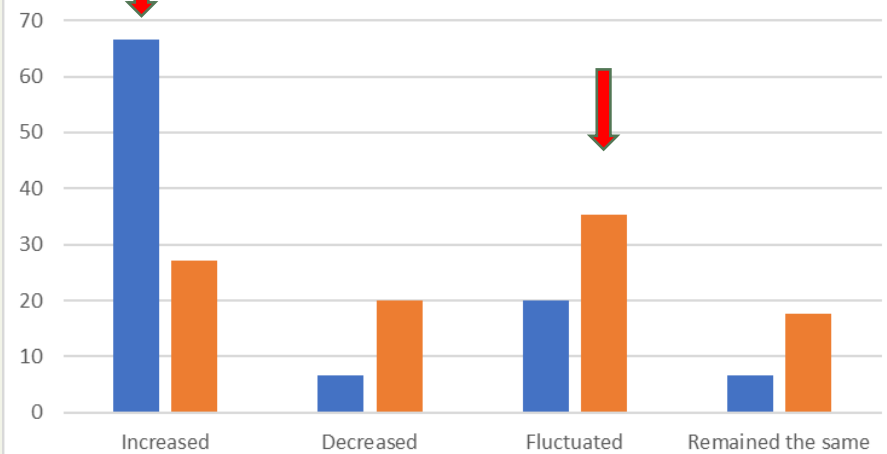
A lot of people in small organizations doing R&R work but mostly part-time or corner-of-desk.

Still a fair amount of seasonal work.

2019 Revenue Ranges



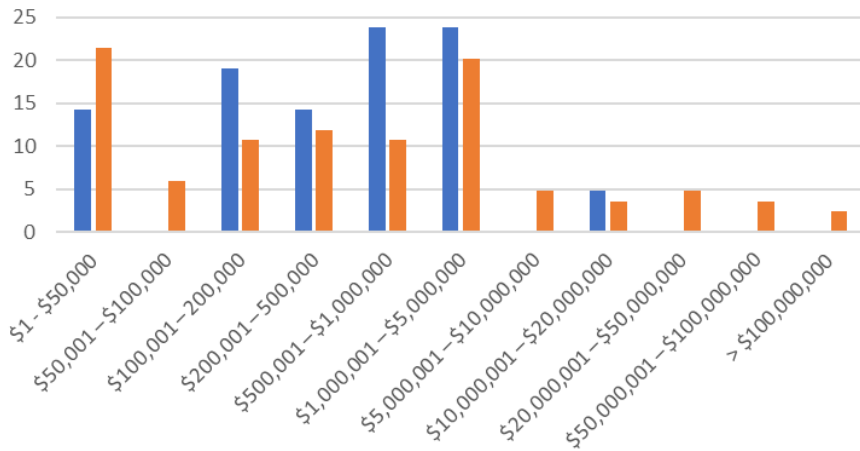
Revenue Change 2014 - 2019



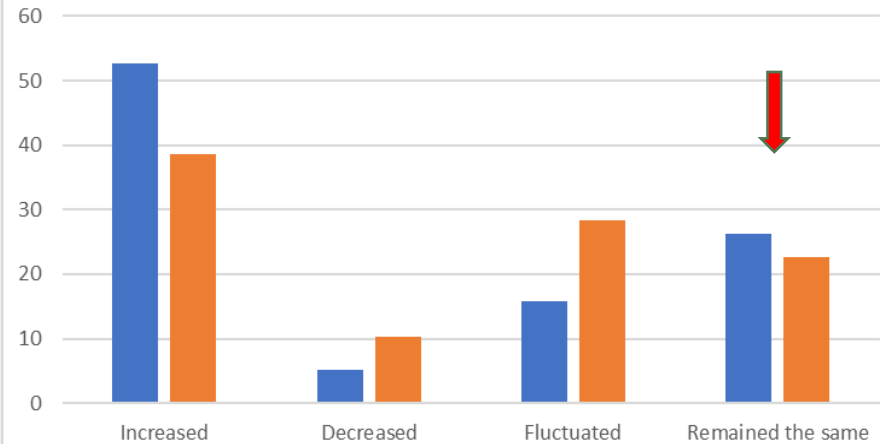
| Reason for Revenue Change | BC | AB |
|---|------|------|
| Change in priorities of clients / stakeholders | 36.4 | 21.8 |
| Change in government regulation/policy | 0 | 19.2 |
| Amount of work needed / available in the province | 27.2 | 19.2 |
| Change in priorities of the organization | 36.4 | 17.9 |

| BC Revenue Sources | AB Revenue Sources |
|-------------------------------------|-------------------------------------|
| Government (25%) and Industry (19%) | Industry (32%) and Government (20%) |

2019 Expense Ranges

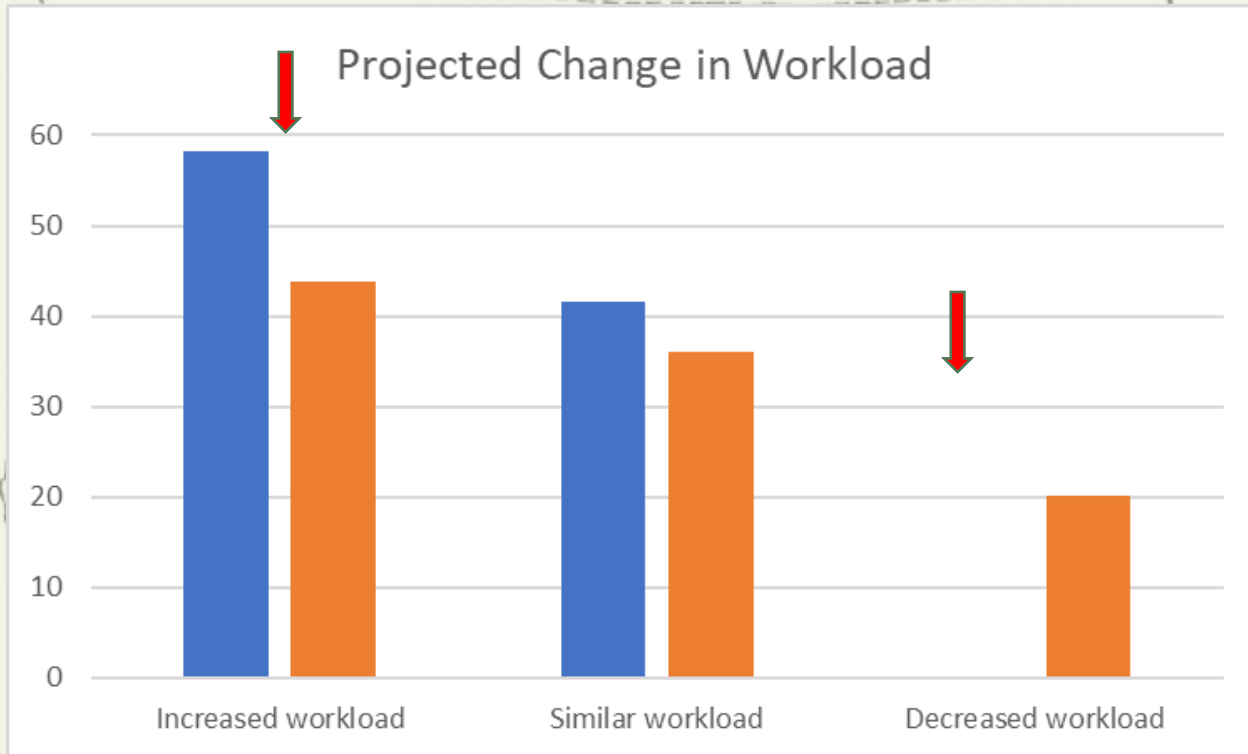


Expenses Change 2014 - 2019



| Reason for Expense Change | BC | AB |
|---|------|------|
| Amount of work needed / available in the province | 25 | 24.7 |
| Change in government regulation/policy | 8.3 | 23.3 |
| Change in priorities of the organization | 41.6 | 19.2 |
| Change in priorities of clients / stakeholders | 25 | 17.8 |

| BC Expenses Paid to | AB Expenses Paid to |
|---|---|
| Consultants (25%) and Indigenous companies/orgs (22%) | Consultants (30%) and Service providers (27%) |



| Reason for Workload Change | BC | AB |
|---|------|------|
| Amount of work needed / available in the province | 43.7 | 26.4 |
| Change in government regulation/policy | 12.5 | 20.8 |
| Change in priorities of the organization | 25 | 19.4 |
| Change in priorities of clients / stakeholders | 12.5 | 18.1 |

| Educational Programs | BC | AB |
|----------------------|---|--|
| Reclamation | UNBC: Reclamation Certificate UVic: Mining Reclamation Course | UofA: B.Sc. Environmental and Conservation Sciences, Major in Land Reclamation Lakeland College: Environmental Conservation & Reclamation program Olds College: Land Reclamation and Remediation diploma Medicine Hat College: Environmental Reclamation Technician diploma |
| Restoration | BCIT: Ecological Restoration, M.Sc. SFU: Ecological Restoration MSc UBC: Bachelor of Urban Forestry UVic: Restoration of Natural Systems Diploma UVic: Ecological Restoration Professional Specialization Certificate | Lakeland College: Conservation & Restoration Ecology Lethbridge College: Environmental Assessment and Restoration |



Takeaways

The survey data and literature review tend to show a greater emphasis on reclamation in AB and on restoration in BC; however, both are important contributors to the provincial economies

R&R work involves highly skilled practitioners from a variety of disciplines and employer types

3,578 people work at least part time on R&R which translates to 1,907 FTEs

Annual R&R revenue and expenses range from <\$50K to >\$100M

Official employment and financial data on the R&R economy is lacking making comparisons to published sources difficult

Additional national surveys could provide important regional information and should be broadened to include activities such as remediation and decommissioning

Regional and national R&R expertise and experience should be mobilized to support international efforts like the UN Decade on Ecosystem Restoration

Questions?

