



# Ministry of Sustainable Resource Management

## ILRR Project

### ILRR Business Requirements Appendix A – ILRR Stakeholder Reports Version 1.1



Sierra Systems Group Inc.  
880 Douglas Street, Suite 500  
Victoria, BC V8W 2B7 Canada  
[www.SierraSystems.com](http://www.SierraSystems.com)

Contact: Simon Lanoix  
Phone: 250.385.1535  
Fax: 250.385.4761  
Email: [SimonLanoix@SierraSystems.com](mailto:SimonLanoix@SierraSystems.com)

Date: February 23, 2004

Sierra Systems



## Table of Contents

<b>A.1</b>	<b>OVERVIEW OF ILRR INTEREST GRANTING AGENCY-SPECIFIC REPORTS .....</b>	<b>1</b>
<b>A.2</b>	<b>BC ASSESSMENT AUTHORITY.....</b>	<b>3</b>
<b>A.3</b>	<b>LAND AND WATER BRITISH COLUMBIA INC. ....</b>	<b>6</b>
<b>A.4</b>	<b>MINISTRY OF ATTORNEY GENERAL AND MINISTER RESPONSIBLE FOR TREATY NEGOTIATIONS, TREATY NEGOTIATIONS OFFICE .....</b>	<b>15</b>
<b>A.5</b>	<b>MINISTRY OF ENERGY AND MINES, TITLES DIVISION, MINERAL TITLES .....</b>	<b>20</b>
<b>A.6</b>	<b>MINISTRY OF ENERGY AND MINES, TITLES DIVISION, OIL AND GAS TITLES ..</b>	<b>29</b>
<b>A.7</b>	<b>MINISTRY OF FORESTS .....</b>	<b>36</b>
<b>A.8</b>	<b>MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT, LAND INFORMATION SERVICES DIVISION, REGISTRIES AND TITLES DEPARTMENT, ARCHAEOLOGY AND REGISTRY SERVICES BRANCH .....</b>	<b>44</b>
<b>A.9</b>	<b>MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT, LAND INFORMATION SERVICES DIVISION, REGISTRIES AND TITLES DEPARTMENT, SURVEYOR GENERAL BRANCH .....</b>	<b>49</b>
<b>A.10</b>	<b>MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT, LAND INFORMATION SERVICES DIVISION, REGISTRY AND TITLES DEPARTMENT, REGISTRY SERVICES SECTION (LAND TITLES).....</b>	<b>54</b>
<b>A.11</b>	<b>MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT – RESOURCE PLANNING BRANCH .....</b>	<b>59</b>
<b>A.12</b>	<b>MINISTRY OF SUSTAINABLE RESOURCE MANAGEMENT – CONTAMINATED SITES .....</b>	<b>65</b>
<b>A.13</b>	<b>MINISTRY OF TRANSPORTATION .....</b>	<b>70</b>
<b>A.14</b>	<b>MINISTRY OF WATER, LAND AND AIR PROTECTION, ENVIRONMENTAL STEWARDSHIP DIVISION, FISH AND WILDLIFE RECREATION AND ALLOCATION BRANCH .....</b>	<b>76</b>
<b>A.15</b>	<b>MINISTRY OF WATER, LAND AND AIR PROTECTION, ENVIRONMENTAL STEWARDSHIP DIVISION, PARKS AND PROTECTED AREAS BRANCH .....</b>	<b>81</b>
<b>A.16</b>	<b>OIL AND GAS COMMISSION .....</b>	<b>86</b>



## **A.1 Overview of ILRR Interest Granting Agency-Specific Reports**

Appendix A provides Interest Granting Agency-specific information in support of the ILRR Business Requirements document. This represents a preliminary assessment of each Interest Granting Agency's business process, integration with ILRR, data quality issues and transition readiness. This section provides information for the following 15 agencies that represent the core data sets for the ILRR:

1. BC Assessment Authority
2. Land and Water British Columbia Inc.
3. Ministry of Attorney General and Minister Responsible for Treaty Negotiations, Treaty Negotiations Office
4. Ministry of Community, Aboriginal and Women's Services, Community Services and Culture Division, Heritage Branch
5. Ministry of Energy and Mines, Titles Division, Mineral Titles
6. Ministry of Energy and Mines, Titles Division, Oil and Gas Titles
7. Ministry of Forests
8. Ministry of Sustainable Resource Management, Land Information Services Division, Registries and Titles Department, Archaeology and Registry Services Branch
9. Ministry of Sustainable Resource Management, Land Information Services Division, Registries and Titles Department, Surveyor General Branch
10. Ministry of Sustainable Resource Management, Land Information Services Division, Registry and Titles Department, Registry Services Section
11. Ministry of Sustainable Resource Management, Resource Management Division, Resource Planning Branch
12. Ministry of Transportation
13. Ministry of Water, Land and Air Protection, Environmental Stewardship Division, Fish and Wildlife Recreation and Allocation Branch
14. Ministry of Water, Land and Air Protection, Environmental Stewardship Division, Parks and Protected Areas Branch
15. Oil and Gas Commission

The following information is provided for each Interest Granting Agency:

- 1. Interest Granting Agency Overview**

Provides a brief overview of the role and responsibilities of the Interest Granting Agency.

- 2. Interest Granting Agency Managed Rights and Interests**

Provides a list of the interest currently managed by the Interest Granting Agency.

- 3. Interest Granting Agency Interest Data Management Systems**

Provides a preliminary list of the operational systems currently used by the Interest Granting Agency to manage their interest data. Additional information on operational systems will be gathered during the System Architecture phase. (See **Section 3.6** for a description of operational systems.)

#### **4. Interest Granting Agency Transaction Volumes**

Interest Granting Agency-provided information on their current volume of applications and interests. Not all Interest Granting Agencies have provided this information and there will be additional follow up during the System Architecture phase.

#### **5. Interest Granting Agency High-Level Interest Management Process with ILRR Intersects**

Provides an overview of the Interest Granting Agency's interest management business processes, projected intersects with the ILRR and impacts of these intersects. Each section includes a process model, with ILRR intersects – these models are also available electronically (ILRR\_BusinessRequirements\_AgencyProcessModels\_V1-0.vsd)

#### **6. Interest Granting Agency Data Quality Issues**

Provides a list of data quality issues that have been identified for the Interest Granting Agency, the impact rating provided by ILRR stakeholder and strategies for data quality and business process improvement.

The majority of the data quality issues were identified in the Data Quality Assessment Reports and these were used as the basis of the data quality impact assessment conducted with the Core Working Group and Northeast Working Group. Some additional data quality issues were identified subsequent to the impact assessment. For these data quality issues no impact assessment rating has been provided.

#### **7. Interest Granting Agency Transition Complexity Assessment**

Provides a summary of a very preliminary assessment of the anticipated complexity of business transition for ILRR stakeholder agencies. See Section 10 for overview of the Transition Plan and complexity criteria.

In some cases, the information available for a particular Interest Granting Agency to date is not complete and additional information collection and analysis will occur during the System Architecture phase.

## **A.2 BC Assessment Authority**

### **A.2.1 BC Assessment Authority Overview**

BC Assessment is a provincial Crown corporation that was incorporated in 1974 under the *Assessment Authority Act*. The mandate of BC Assessment is to establish and maintain an independent, uniform, and efficient real property assessment system throughout British Columbia in accordance with the *Assessment Act*. The *Act* requires that BC Assessment produce annual rolls with assessments at market value.

### **A.2.2 BCAA Managed Rights and Interests**

BCAA currently manages the following rights and interests:

1. Assessments

### **A.2.3 BCAA Interest Data Management Systems**

BCAA is currently in the process of implementing a new system and decommissioning their old application:

- Computer Assisted Mass Appraisal System (CAMAS) – implementation to be completed in 2004
- Computer Assisted Property Assessment System (CAPAS): property inventory collecting and property assessment; old mainframe system – to be retired 2004

### **A.2.4 BCAA Transaction Volumes**

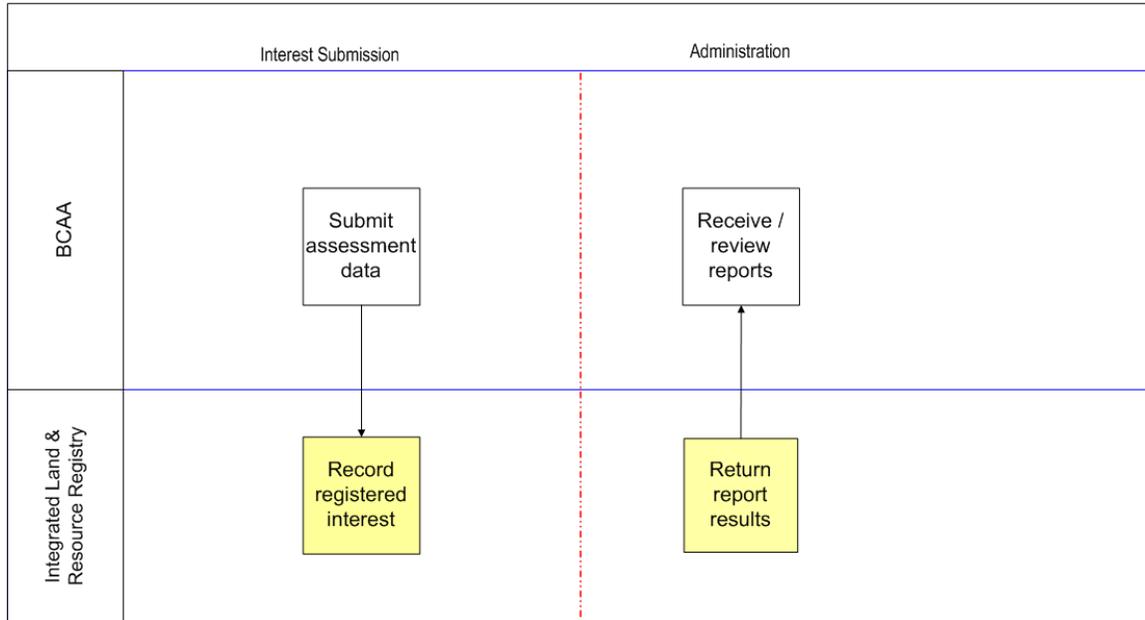
BCAA has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

## A.2.5 BCAA High-Level Interest Management Process with ILRR Intersects

### A.2.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed by BCAA that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on BCAA.

British Columbia Assessment Authority  
Proposed ILRR Intersect Points



### A.2.5.2 Intersects and Impacts

Intersect Point	Intersect	Impact
Submit assessment data	Record Registered interest	<b>System Integration</b> An interface between the BCAA systems and ILRR will need to be developed to allow for transfer of data from BCAA when assessment records are created or updated.
Receive / review reports	Return report results	<b>Enhanced Information Availability for Planning</b> BCAA will be able to use the ILRR query and reporting functions to support planning processes.

## A.2.6 BCAA Data Quality Issues

BCAA data was not identified as a data set of relevance to the ILRR during the Data Quality Assessment Report consultation. Therefore no work as been complete to assess the quality of their data sets. Data quality analysis will be conducted during the System Architecture phase.

## **A.2.7 Transition Complexity Assessment for BCAA**

As relatively little information is available to date on BCAA's business, an assessment of BCAA's Transition Complexity will be completed during the System Architecture phase.

## **A.3 Land and Water British Columbia Inc.**

### **A.3.1 LWBC Overview**

Land and Water British Columbia Inc. (LWBC) is the provincial corporation responsible the management of Crown land and water. A Crown corporation, LWBC issues land tenures, allocates and disposes of surplus land, and administers and licences Crown water resources.

Land and Water British Columbia Inc. operates under the authority of the following legislation and agreements: the Land Act, the University Endowment Land Act, the Ministry of Lands, Parks and Housing Act, the Water Act, the Water Utilities Act, the Public Service Act, and the Province's First Nations Consultation Guidelines. The corporation reports to the Minister of Sustainable Resource Management.

The corporation's headquarters is located in Victoria. Services are provided across the province from four major service centres located in Kamloops, Nanaimo, Prince George and Surrey, and field offices located in Cranbrook, Fort St. John, Smithers and Williams Lake. LWBC maintains a staff complement of 316 employees.

Land and Water British Columbia Inc.'s mandate covers all Crown land uses except the following:

- Forestry;
- Mining;
- Oil and natural gas extraction; and
- Parks, ecological reserves and protected areas.

At present, LWBC manages a portfolio of:

- 32,000 land tenures that allocate Crown land for a wide range of commercial, industrial, commercial recreation and settlement uses, including 10,215 Land Act reserves for various government uses
- 43,000 water licences
- 180 private water utilities that provide water service to approximately 27,000 households.

In addition, the agency provides three services relating to the management of provincial water resources:

- Regulating water storage dams to prevent dam failure and misoperation, and to manage the risk to the Corporation and the province
- Development of water use plans that balance inter-related issues of fish stocks, aquatic environments, flood protection, etc.
- Issuance and management of water licences and management of appeals under the Water and Utilities Act.

### A.3.2 LWBC Managed Rights and Interests

LWBC currently manages the following rights and interests:

1. Crown Grants
2. Land Lease
3. Land Licence
4. Land Right of Way
5. Land Temporary Permit
6. Map Reserves
7. Notations of Interest
8. OIC Reserves
9. Permits Over Crown Land
10. Reservations of Water
11. Right to Use Unrecorded Water
12. Transfers of Administration (to Provincial Agencies)
13. Transfers of Administrative Control and Benefits (to Federal Agencies)
14. Water Approval
15. Water Licence

### A.3.3 LWBC Interest Data Management Systems

LWBC utilizes the following applications in the management of interest data:

- TANTALIS
- WLIS
- POI
- WARMS

### A.3.4 LWBC Transaction Volumes

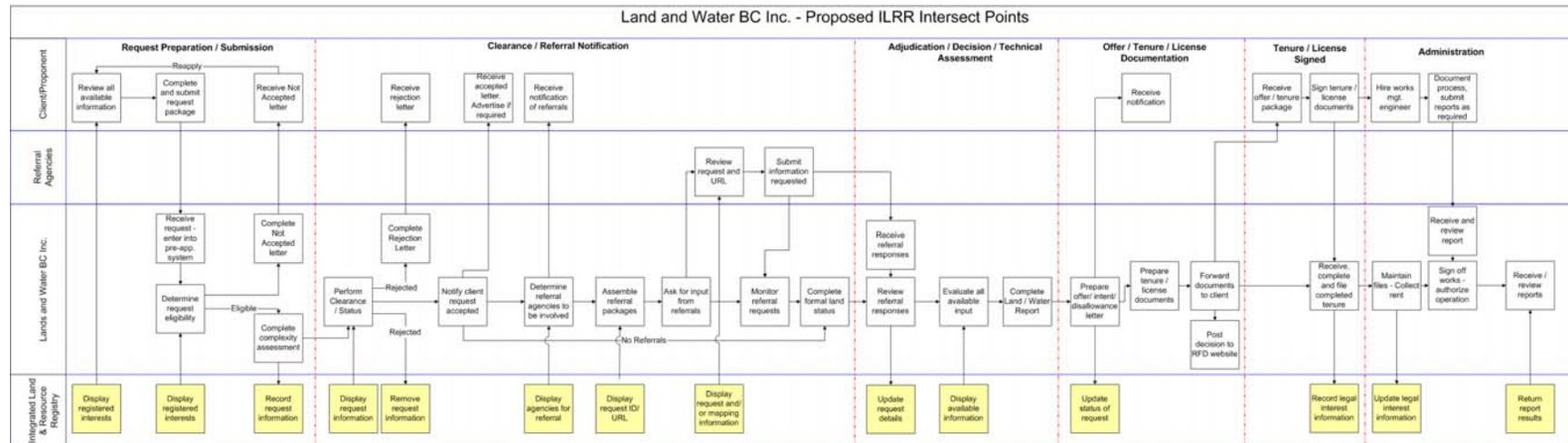
LWBC reports the following interest application volumes:

<b>Annual Applications</b>	300 per year
<b>Annual Rights Granted</b>	550 per year (250 difference between received/granted is due to replacement of existing tenures)
<b>Application Peaks</b>	Probably more dependent on the economy, increase in applications when the economy is up.
<b>Annual External Referrals</b>	Approximately 1500 referrals per year
<b>Peak External Requests</b>	Probably has a greater dependency of the economy: if the economy is up, then applications are up.

### A.3.5 LWBC High-Level Interest Management Process with ILRR Intersects

#### A.3.5.1 LWBC Process Model with ILRR Intersects

The following model describes the interest management processes followed by LWBC that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on LWBC.



### A.3.5.2 LWBC Intersects and Impacts

All impacts identified in Section 8.2 apply to LWBC. The following represents LWBC-specific intersect and impacts:

Intersect Point	Intersect	Impact
Review all available information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b></p> <p>The ILRR will be made available to Proponents prior to preparation of a request. Providing access to ILRR will allow the proponent to review a wider range of interest information (more than just land and water use). This additional information will allow the proponent to make better-informed decisions when preparing a land/water use request and reduce the number requests where an obvious conflicting right/interest exists.</p>
Determine request eligibility	Display registered interests	<p><b>Faster Initial Stating</b></p> <p>LWBC may reference ILRR for preliminary status during the Pre-Request phase. A preliminary check of the ILRR for a request may identify existing conflicting rights/interests that would prevent LWBC from approving the request. This would allow LWBC to issue a definitive “rejection” earlier in their process.</p>
Complete complexity assessment	Record Request Information	<p><b>System Integration</b></p> <p>Tantalis and WLIS will require integration with the ILRR to transfer request data when a request has been deemed “Eligible” by LWBC. This will require the development of an interface between the two systems.</p> <p>The transfer of data from Tantalis to ILRR may also result in data cleanup work, if ILRR rejects data transfers due to basic data validation errors.</p>
Perform Clearance/Status	Display request information Remove Request Information	<p><b>System Integration</b></p> <p>Tantalis/WLIS will require integration with the ILRR to facilitate the deletion of a request record in ILRR when LWBC rejects the request.</p>
Determine referral agencies to be involved	Display agencies for referral	<p><b>Support for Referral Process</b></p> <p>LWBC will be able to use the ILRR to assist them in identifying agencies that will need to be included in the referral process. This will be done by running a status report for the request’s location to identify agencies who have interests that intersect with the request.</p>

Intersect Point	Intersect	Impact
Assemble referral packages	Display request ID/ URL	<b>Support for Referral Process</b> LWBC may be able to use a reference to a request identifier in the ILRR (possibly with associated location information) as part of assembling Referral Packages. This may reduce the amount of effort required to prepare Referral Packages.
Review request and URL	Display request and/or mapping information	<b>Support for Referral Process</b> Referral Agencies may be able to directly reference the request in ILRR based on the request identifier when reviewing a Referral Package from LWBC.
Review referral responses	Update request details	<b>System Integration</b> Tantalis/WLIS will require integration with the ILRR to facilitate the synchronization of changes to a request as it is processed by LWBC.
Evaluate all available input	Display available information	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for LWBC to re-reference the status of a request location in ILRR as part of the final evaluation of a request.
Prepare offer/ intent/disallowance letter	Update status of request	<b>System Integration</b> Tantalis/WLIS will require integration with the ILRR to facilitate the updating of the request status when a decision has been made. This may include changing the request status in ILRR (if LWBC makes an Offer) or deleting the request record (if LWBC rejects the request)
Receive, complete and file completed tenure	Record legal interest information	<b>System Integration</b> Tantalis/WLIS will require integration with the ILRR to facilitate the transfer of interest information when an interest/right has been granted by LWBC.
Maintain files - Collect rent	Update legal interest information	<b>System Integration</b> Tantalis/WLIS will require integration with the ILRR to ensure synchronization between the two systems when LWBC updates interest/right information.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> LWBC will be able to use the ILRR query and reporting functions to support planning processes.

### A.3.6 LWBC Data Quality Issues

#### A.3.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Land and Water BC data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Parcel Fabric and Crown Tenure	Missing Tenure Records (attribute)	2.39	A number of records or attributes were not brought across during conversion to the Tantalus system. To close “gaps” in the ILRR database, these records must be researched and entered into the Tantalus database.
2	Parcel Fabric and Crown Tenure	Missing Crown Grant attributes and images	2.35	See Data Issue #1 above.
3	Water Rights	Inaccurate spatial location of PODs & works	2.23	These data sets require updating and quality assurance to bring them up to a standard that can support the requirements of ILRR. In particular, the backlog in entering POD information in some regions should be addressed. The ability to accurately enter the location of PODs and works features is tied to the availability of cadastre and TRIM stream data, since the location of PODs and works depicted on application drawings are referenced relative to these “context” features.
4	Water Rights	Currency of licensee information.	2.09	Under the <i>Water Act</i> , ownership changes must be reported where they affect the provision of water rights. This legislative requirement is currently not being met. An interface should be explored (possibly a monthly data export from LTO to LWBC) that could support managing the impacts of title changes at LTO that affect water rights that are managed by LWBC.
5	Water Rights	Incomplete attribute information – missing parcel identifiers (PIDs)	2.00	Records that are missing PID values in WLIS should be examined and PIDs should be added where applicable. The ability to accurately enter PIDs for these records is tied to the availability of cadastre data, since the PID values are derived from the cadastre information.
6	Water Rights	Incomplete spatial information (stored as coverages in data warehouse)	1.86	See Data Issue #3 above.

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
7	Water Rights	Incomplete stream network against which to register PODs.	1.75	The TRIM database contains an incomplete inventory of all the water features in BC. As a result, not every point of diversion associated with a water right can be definitively located on a TRIM water feature. Provided that location of the point of diversion can be entered relative to another feature in the database (e.g. cadastre boundaries from the applicant sketch), this issue should not present a significant problem for ILRR.
8	Water Rights	Incomplete private cadastral data to reference licenses against (i.e. appurtenant parcel).	1.70	Resolution of this issue is dependent on the CCF initiative being able to provide ILRR with a complete and seamless cadastre fabric.

### **A.3.6.2 Business Process Changes for Data Quality Improvement**

#### ***General requirements for spatial data associated with requests.***

Currently, applicants are required to provide diagrams at different scales that describe the location of their proposed activity. While this information is diagrammed relative to cadastral boundaries and natural features, it is not geo-referenced to an accurate location on the earth. The process to geo-reference this information currently requires intervention by Ministry staff to enter the drawing information into a GIS coordinate system. Since geo-referenced locations (“geometry”) are required for all requests and interests that will be accessed by ILRR, LWBC must support the geo-referencing of requests within their core business processes. To consistently meet this data standard, LWBC will have to adopt one or more of the following modifications to their existing processes:

- Allocate additional internal resources to ensure that all LWBC applications/requests are geo-referenced within a standard coordinate system based on the information provided on applicant submitted drawings
- Require applicants to provide a digital, geo-referenced drawing instead of/in addition to the existing drawing requirements for applications
- Require that applicants use an on-line mapping tool (similar to MTO’s mapping interface) to indicate the location for a request prior to accepting the application

#### ***Establishing common practices for water rights data management.***

The approach to maintaining spatial information (i.e. PODs and associated works features) for water rights is inconsistent between regions. In some cases, POD and works locations have not been maintained for over two years. The practices for maintaining this information should be standardized in one of the following ways:

- Centralizing data maintenance at a single location that supports all regional offices
- Mandating (and enforcing) common standards and tools that are used consistently regionally for data maintenance.

#### ***LTO ownership changes that affect water rights.***

If LTO begins sending ownership changes to Land and Water BC, LWBC will require a process to accept and incorporate these changes into their water rights database.

### A.3.7 Transition Complexity Assessment for LWBC

Based on the information available, the following is a preliminary assessment of LWBC's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Moderate	<ul style="list-style-type: none"> <li>Many existing processes would support ILRR but are not being followed consistently at regional LWBC offices</li> </ul>
Organization	High	<ul style="list-style-type: none"> <li>Staff distributed between regional offices</li> <li>Little or no staff capacity available to support ILRR transition</li> </ul>
Technology Environment	High	<ul style="list-style-type: none"> <li>Multiple systems must be interfaced with ILRR (Tantalis, WLIS)</li> </ul>
Data Quality	High	<ul style="list-style-type: none"> <li>Significant data quality issues, particularly with Water Rights data</li> <li>Completeness and accuracy of tenure data in Tantalis could represent a significant issue</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## **A.4 Ministry of Attorney General and Minister Responsible for Treaty Negotiations, Treaty Negotiations Office**

### **A.4.1 TNO Overview**

The Treaty Negotiations Office (TNO) has primary responsibility for resolving land claim settlements in the Province of British Columbia. TNO is committed to achieving certainty regarding the ownership and use of provincial Crown lands and resources through treaties and other negotiated agreements. Success in this endeavour will, it is believed, lead to prosperous and just communities.

Unresolved aboriginal claims have created economic uncertainty over the ownership and use of Crown land and resources. Treaty negotiations aim to address these uncertainties by establishing agreements that can enhance economic stability and opportunity in British Columbia.

This office negotiates and implements treaties and other agreements with First Nations. In doing so, legal certainty to the ownership and use of Crown lands and provincial resources is established, which contributes to economic stability.

### **A.4.2 TNO Managed Rights and Interests**

TNO currently manages the following rights and interests:

1. Treaty Settlement Lands

### **A.4.3 TNO Interest Data Management Systems**

TNO does not manage its own operational systems for maintaining interest data. When TNO requires a record of an interest they utilize the following systems:

- TANTALIS
- ALTOS

### **A.4.4 TNO Transaction Volumes**

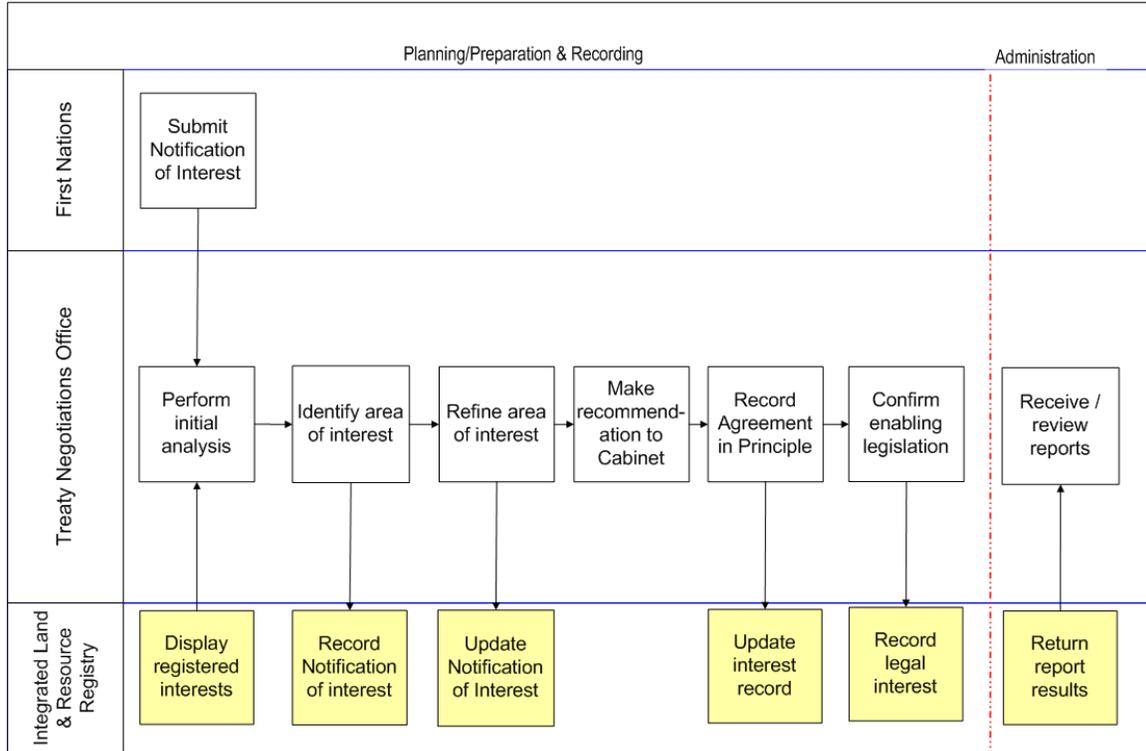
TNO has not yet provided information on transaction volumes. Given the nature of the TNO business input volumes will be very low, although queries to ILRR will be extensive. Will be determined during the System Architecture phase.

## A.4.5 TNO High-Level Interest Management Process with ILRR Intersects

### A.4.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed by TNO that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on TNO.

Ministry of Attorney General - Treaty Negotiations Office  
Proposed ILRR Intersect Points



### A.4.5.2 TNO Intersects and Impacts

All impacts identified in Section 8.2 apply to TNO. The following represents TNO-specific intersect and impacts:

Intersect Point	Intersect	Impact
Perform initial analysis	Display registered interests	<b>Comprehensive Right/Interest Information Available to TNO</b> The ILRR will be made available to TNO in order to review a wide range of interest information. This additional information will allow TNO to make better-informed decisions when preparing recommendations to Cabinet.
Identify area of interest	Record Notification of Interest	<b>System Integration/Business Process Change</b> TNO will require integration with the ILRR to facilitate the transfer of Notification of Interest when it has been established. A formal process for recording NOI's in Tantalus is required.
Refine area of interest	Update notification of interest	<b>System Integration/Business Process Change</b> TNO will require integration with the ILRR to facilitate the updating of a notification of interest. A formal process for updating NOI's in Tantalus is required.
Record Agreement in Principle	Update interest record	<b>System Integration/Business Process Change</b> TNO will require integration with the ILRR to facilitate the updating of the interest record to reflect the Agreement in Principle. A formal process for updating NOI's in Tantalus is required.
Confirm enabling legislation	Record legal interest	<b>System Integration/Business Process Change</b> TNO will require integration with the ILRR to facilitate the transfer of interest information when a Treaty Settlement Land has been successfully negotiated. A formal process for recording the granting of land (in Tantalus/ALTOS) is required. Will also need formal process for "closing" NOI's when land has been granted.
Receive/review reports	Return report results	<b>Enhanced information Availability for Planning</b> TNO will be able to use the ILRR query and reporting function to support planning processes.

## A.4.6 TNO Data Quality Issues

### A.4.6.1 Data Quality Issues, Priorities and Strategies

Treaty Negotiations Office (TNO) data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with the TNO, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	TNO	Availability to ILRR of Notice of Interest data	N/A	Notices of Interest should continue to be maintained by MSRM on behalf of TNO. Currently, MSRM manages the mapping of areas (“Notices of Interest”) that are the subject of a land claim or treaty negotiation on behalf of TNO. The volume of these map features is approximately 200-300 areas a year. The areas currently mapped are believed to be essentially complete.
2	TNO	Availability to ILRR of Treaty Settlement Lands data	N/A	Surveyed Treaty Settlement Lands should be entered into LTO / CCF.

### A.4.6.2 Business Process Changes for Data Quality Improvement

TNO does not have a well-documented business process for managing information about their ongoing treaty negotiations and the lands affected. TNO should consider adopting standardized procedures for the maintenance of their treaty negotiations related data and implement a data management environment to support the standardization of their business processes.

Of particular interest to ILRR is the ad-hoc nature of data maintenance with regard to Notices of Interest and Treaty Settlement Lands. The processes by which these data updates are communicated to the data custodians at MSRM and LTO should be more formalized.

### A.4.7 Transition Complexity Assessment for TNO

Based on the information available, the following is a preliminary assessment of TNO's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Moderate	<ul style="list-style-type: none"> <li>Existing processes are not well documented, but appear to be relatively straightforward in terms of supporting ILRR</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>Little or no staff capacity available to support ILRR transition</li> </ul>
Technology Environment	Moderate	<ul style="list-style-type: none"> <li>Data management is handled on behalf of TNO by LTO and MSRM</li> </ul>
Data Quality	Moderate	<ul style="list-style-type: none"> <li>Spatial data are reported to be well suited to support ILRR</li> <li>Tabular data must be compiled and entered based on hard copy files that may be difficult to locate</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Moderate</b>	

## **A.5 Ministry of Energy and Mines, Titles Division, Mineral Titles**

### **A.5.1 Mineral Titles Overview**

The Ministry of Energy and Mines manages the development of British Columbia's mineral resources, and implements policies and programs to encourage their development while maintaining environmental integrity. In addition, the Ministry regulates and inspects the exploration and mineral production industries in B.C. to protect the workers, the public and the environment.

The ministry's mandate is to manage Crown coal, mineral and placer rights in a manner that:

- Provides continuing economic benefit from resource development
- Supports an active industry and
- Is responsive to public concerns

To fulfill the mandate, the Ministry administers the laws and manages the recording system pertaining to the acquisition and maintenance of mineral, placer and coal rights in the province. The Ministry maintains records and maps, which indicate areas available for location and acquisition of title as well as the location and status of mineral and coal titles acquired under the Mineral Tenure Act and Coal Act.

Timely information is important to Mineral Titles' clients. The Ministry strives to distribute information in ways that are convenient to clients. Seven Gold Commissioners throughout B.C. provide 'real-time' information in traditional ways, while the ministry web site provides Internet access to title information through the use of the latest technology.

### **A.5.2 Mineral Titles Managed Rights and Interests**

Mineral Titles currently manages the following rights and interests:

1. Coal Land Reserves
2. Coal Lease
3. Coal Licence
4. Coal Licence Application
5. Mineral Claim
6. Mineral Reserves
7. Mining Lease
8. Placer Claim
9. Placer Lease

### **A.5.3 Mineral Titles Transaction Volumes**

Mineral Titles has not yet provided information on transaction volumes. Will be determined during the System Architecture phase.

### A.5.4 Mineral Titles Interest Data Management Systems

Mineral Titles utilizes the following applications in the management of interest data:

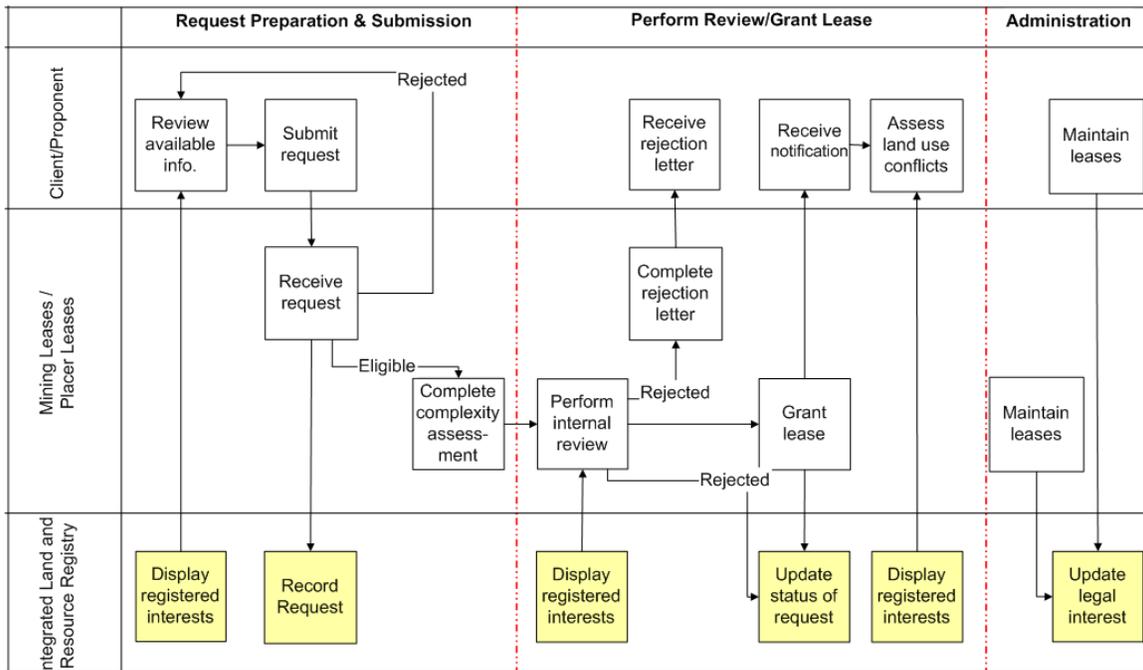
- MIDA
- MIDA GRAPHICS
- MIDA RECORDS
- MTO
- LRDW

### A.5.5 Mineral Titles High-Level Interest Management Process with ILRR Intersects

#### A.5.5.1 Process Model with ILRR Intersects – Mining Leases/Placer Leases

The following model describes the interest management processes for Mineral Leases/Placer Leases followed by Mineral Titles that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on Mineral Titles.

Ministry of Energy and Mines: Mining Leases / Placer Leases - Proposed ILRR Intersect Points



### A.5.5.2 Intersects and Impacts – Mining Leases/Placer Leases

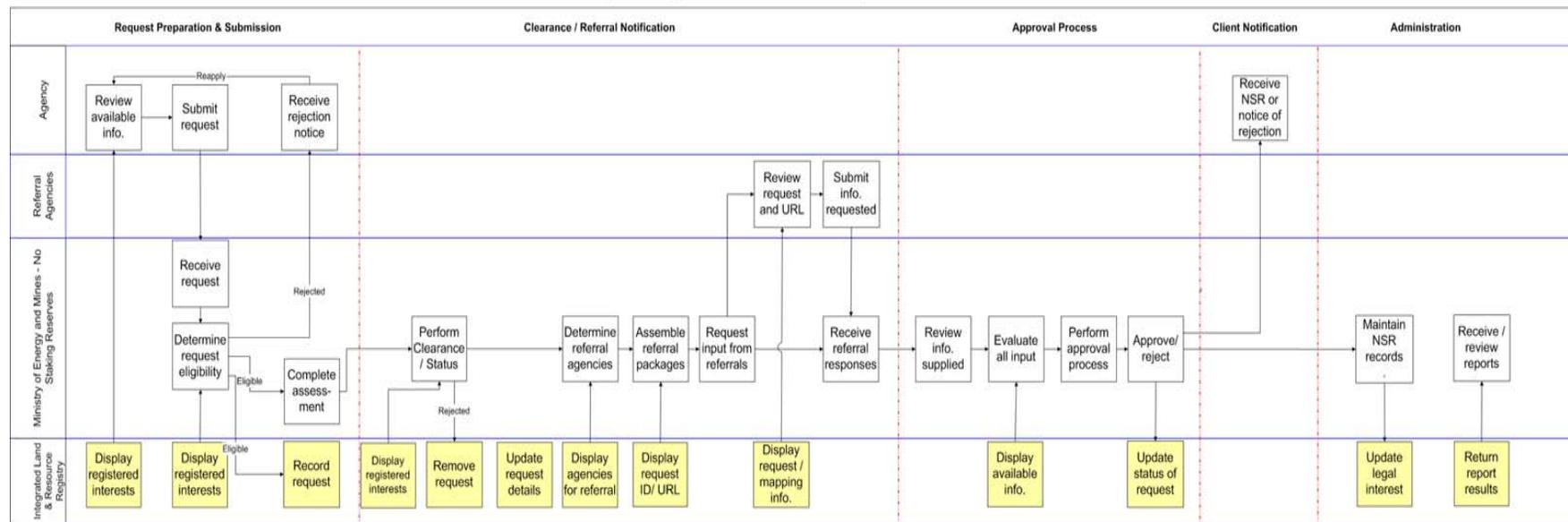
All impacts identified in Section 8.2 apply to Mineral Leases/Place Leases. The following represents Mineral Leases/Place Leases-specific intersect and impacts:

<b>Intersect Point</b>	<b>Intersect</b>	<b>Impact</b>
Review available information	Display registered interests	<b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR will be made available to Proponents prior to preparation of a request. Providing access to ILRR will allow the proponent to review a wider range of interest information This additional information will allow the proponent to make better-informed decisions when preparing a lease request and reduce the number requests where an obvious conflicting right/interest exists.
Receive request	Record Request	<b>System Integration</b> An interface will need to be developed from Mineral Titles application to the ILRR to allow for transfer of lease request information when it is recorded by Mineral Titles.
Perform internal review	Display registered interests	<b>Faster Initial Stating</b> MEM may reference the ILRR for a preliminary check of registered interests. This may identify existing conflicting rights/interests that would prevent MEM from approving the request. This would allow MEM to issue a definitive “rejection” earlier in their process.
Grant Lease	Update status of request	<b>System Integration</b> An interface will need to be developed from Mineral Titles application to the ILRR to allow for update of lease request information when it is recorded by Mineral Titles.
Assess land use conflicts	Display registered interests	<b>Enhanced Ability to determine land “Status”</b> Mineral Titles will be able to use the ILRR to assess potential land use conflicts.
Maintain leases	Update legal interest	<b>System Integration</b> An interface will need to be developed from Mineral Titles application to the ILRR to allow for transfer of interest information when it is recorded by Mineral Titles.

### A.5.5.3 Process Model with ILRR Intersects

The following model describes the interest management processes for Mineral Reserves followed by Mineral Titles that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on Mineral Titles.

Ministry of Energy and Mines: Reserves- Proposed ILRR Intersect Points



#### A.5.5.4 Intersects and Impacts – Mineral Reserves

All impacts identified in Section 8.2 apply to Mineral Reserves. The following represents Mineral Reserves-specific intersect and impacts:

<i>Intersect Point</i>	<i>Intersect</i>	<i>Impact</i>
Review available information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR will be made available to Proponents prior to preparation of a request. Providing access to ILRR will allow the proponent to review a wider range of interest information This additional information will allow the proponent to make better-informed decisions when preparing a mineral reserve request and reduce the number requests where an obvious conflicting right/interest exists.</p>
Determine request eligibility	Display registered interests Record request	<p><b>Faster Initial Statusing</b> MEM may reference the ILRR for preliminary statusing. A preliminary check of the ILRR for a request may identify existing conflicting rights/interests that would prevent MEM from approving the request. This would allow MEM to issue a definitive “rejection” earlier in their process.</p> <p><b>System Integration</b> An interface between the Mineral Titles applications and ILRR will need to be developed to facilitate the transfer of interest request when they are recorded by Mineral Titles.</p>
Perform Clearance / status	Display registered interests Remove request	<p><b>Faster Initial Statusing</b> MEM may reference the ILRR for a preliminary check of the request. This may identify existing conflicting rights/interests that would prevent MEM from approving the request. This would allow MEM to issue a definitive “rejection” earlier in their process.</p> <p><b>System Integration</b> An interface between the Mineral Titles applications and ILRR will need to be developed to facilitate the transfer of interest request when they are updated by Mineral Titles.</p>
Determine referral agencies	Display agencies for referral	<p><b>Support for referral process</b> MEM will be able to use the ILRR to assist them in identifying agencies that will need to be included in the referral process. This will be done by running a status report for the request’s location to identify agencies that have interests that intersect with the request.</p>

<i>Intersect Point</i>	<i>Intersect</i>	<i>Impact</i>
Assemble referral packages	Display request ID/URL	<b>Support for Referral Process</b> MEM may be able to use a reference to a request identifier in the ILRR (possibly with associated location information) as part of assembling Referral Packages. This may reduce the amount of effort required to prepare Referral Packages.
Review request and URL	Display request / mapping information	<b>Support for Referral Process</b> Referral Agencies may be able to directly reference the request in ILRR based on the request identifier when reviewing a Referral Package from MEM.
Evaluate all input	Display available information	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for MEM to re-reference the status of a request location in ILRR as part of the final evaluation of a request.
Approve/reject	Update status of request	<b>System Integration</b> An interface between the Mineral Titles applications and ILRR will need to be developed to facilitate the transfer of interest request when they are updated by Mineral Titles.
Maintain NSR records	Update legal interest	<b>System Integration</b> An interface between the Mineral Titles applications and ILRR will need to be developed to facilitate the transfer of interest records when they are granted by Mineral Titles.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> MEM will be able to use the ILRR query and reporting functions to support planning processes.

## A.5.6 Mineral Titles Data Quality Issues

### A.5.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Mineral Titles data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Mineral Tenures	Approximately 700 tenures not plotted on the map.	2.23	New information for mineral tenures (except Coal) is entered through the Mineral Titles Online (MTO) application. MTO enforces business rules and performs quality assurance on attribute and geometry data that is submitted by applicants and interest holders. Any new data being submitted through MTO should therefore meet the requirements of ILRR.
2	Mineral Tenures	Lease of placer minerals have not been entered into the spatial dB for the last 8 months.	2.05	Need to confirm current status of this issue.
3	Mineral Tenures	Some of the attribute data is not linked to the spatial data (not all the titles are plotted on the map).	1.95	See Data Item #1 above.
4	Mineral Tenures	Spatial - Inaccurate plotting of Mineral Claims & PlacerClaims (MiDAGraphics)	1.82	See Data Item #1 above. Prior to the implementation of the current PNG grid-based system for identifying claim locations, mineral tenure boundaries were digitized based on the interpretation of sketches submitted by applicants. As a result, there is a low confidence level in the accuracy of these legacy boundaries. Rather than attempt to verify or correct these boundaries, Mineral Claims has taken an approach where tenure holders will have 2 years from the implementation of MTO to provide a corrected set of geometry that accurately represents the boundary of their interest(s). Tenure boundaries that have not been subject to this correction after this period will be assumed to be accurate for the purposes of the Mineral Tenure registry (and ILRR).

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
5	Mineral Tenures	Spatial – inaccurate coal tenure mapping due to NPG grid slivers.	1.68	<p>Geometry associated with applications submitted through MTO is defined by a grid system that is based on the Petroleum Natural Gas (PNG) grid system. Consequently, the quality of location geometry for Mineral Tenures is entirely dependent on the quality of the PNG grid data. MSRM is currently engaged in improving the quality of the PNG grid, particularly in the area of reducing the number of polygon slivers in the data set.</p> <p>Coal tenures are presently still handled using the MiDA environment. Insufficient resources are presently available at Mineral Titles to support adding Coal tenures to the scope of the MTO system implementation. It is recommended that additional resources be provided to Mineral Titles to allow Coal tenures to be added to the scope of the MTO application. This will ensure that consistent business rules and data QA are applied to all mineral tenure types by the MTO application, and will allow the MiDA technical environment to be retired.</p>
6	Mineral Tenures	Rights not identified	1.68	<p>See Data Item #1 above.</p> <p>Some clean up may need to occur for legacy records.</p>
7	Mineral Tenures	Restrictions not in MiDA	1.45	Restrictions could be researched and entered into MiDA.
8	Mineral Tenures	No links to legal docs.	1.41	Low priority issue – not likely to be resolved.

### A.5.6.2 Business Process Changes for Data Quality Improvement

**No significant business processes changes due to ILRR are expected at Mineral Titles.**

Significant business process change as a result of ILRR implementation is not anticipated at Mineral Titles, due to the recent business process improvements associated with the development and implementation of the MTO application.

### A.5.7 Transition Complexity Assessment for Mineral Titles

Based on the information available, the following is a preliminary assessment of Mineral Titles' Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Low	<ul style="list-style-type: none"> <li>Processes introduced as part of MTO implementation should provide good support for ILRR</li> <li>Complexity may increase if coal tenures are continued to be handled outside of MTO</li> </ul>
Organization	Low	<ul style="list-style-type: none"> <li>Automating processes through MTO will minimize organizational impacts of supporting ILRR</li> </ul>
Technology Environment	Low / Moderate	<ul style="list-style-type: none"> <li>MiDA environment may present technical challenges (needs to be further investigated)</li> </ul>
Data Quality	Low	<ul style="list-style-type: none"> <li>Newly accepted data through MTO should be well suited to support ILRR</li> <li>Some outstanding issues with the PNG grid and legacy tenure locations are being addresses by MSRM</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Low</b>	

## **A.6 Ministry of Energy and Mines, Titles Division, Oil and Gas Titles**

### **A.6.1 Oil and Gas Titles Overview**

The Government of British Columbia is committed to opening up every region and community of the province to a wealth of new opportunities. BC's oil and gas sector holds tremendous promise for BC. It is a vital part of the provincial economy, generating significant economic activity each year and employing thousands of British Columbians.

In 2002, the province sold approximately \$290 million of oil and gas rights, saw 643 oil and gas wells drilled and produced 1.2 trillion cubic feet (Tcf) of natural gas, the most in B.C.'s history. In 2002, the sales value of oil and gas production was estimated at \$4.2 billion, which provided direct revenue to the province of about \$1.2 billion. Industry expenditures in the province were \$4.4 billion.

To open up oil and gas activity, the province offers a streamlined regulatory environment and is working to enhance infrastructure.

The natural gas industry has grown rapidly over the last several years and growth is expected to continue. Natural gas development in the Northeast represents a major and growing sector of the province's economy. Large, world-class discoveries such as Ladyfern have fostered increased international interest in our natural gas potential. Since deregulation of gas markets in 1985, BC natural gas has played a growing role in domestic and international markets. Increased use of natural gas for electricity generation in BC and in the US offers promising market opportunities.

Crown reserve petroleum and natural gas rights are disposed of under section 71 of the Petroleum and Natural Gas Act. Dispositions, by public tender, are made once each month. Dates for the dispositions are usually announced at least one year in advance. Details on the rights offered in each disposition are included in notices mailed to interested parties approximately six and one-half weeks prior to the disposition. Notices are also published in the British Columbia Gazette. A list of accepted offers is released the day following the disposition.

### **A.6.2 Oil and Gas Titles Managed Rights and Interests**

Oil and Gas Titles currently manages the following rights and interests:

1. Drilling Licences
2. Geothermal Leases
3. Geothermal Permits
4. Oil and Gas Leases
5. Petroleum and Natural Gas Permit
6. Section 72 Agreement
7. Underground Storage Lease

### **A.6.3 Oil and Gas Titles Interest Data Management Systems**

Oil and Gas Titles utilizes the following applications in the management of interest data:

- ENERGIS
- PTS
- PTO
- LRDW

#### A.6.4 Oil and Gas Titles Transaction Volumes

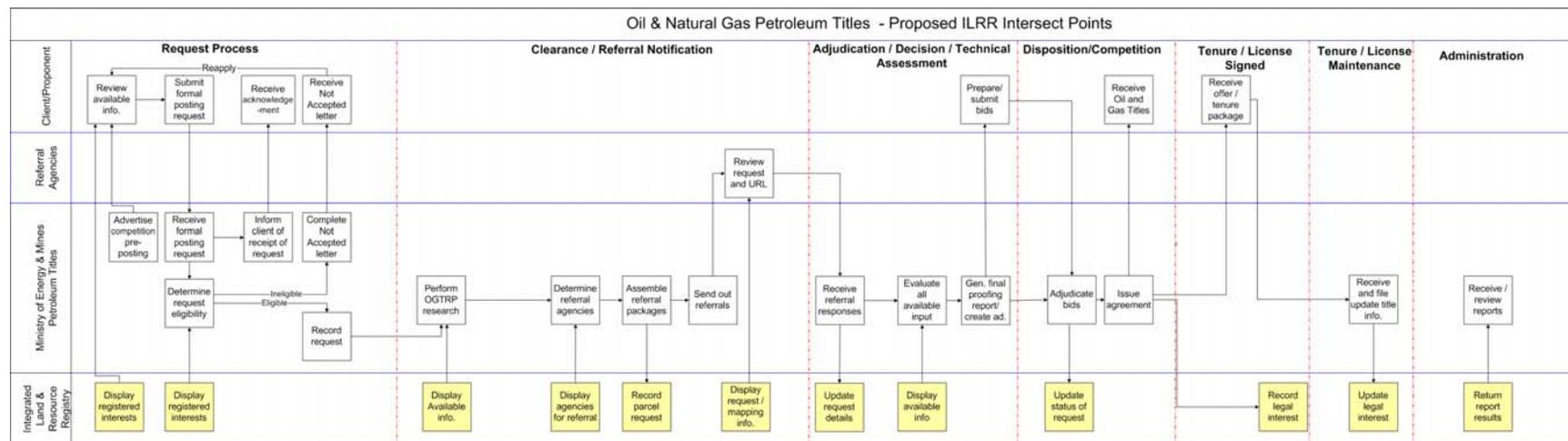
Oil and Gas Titles reports the following interest request volumes:

<b>Annual Applications</b>	1200
<b>Annual Rights Granted</b>	1000
<b>Application Peaks</b>	One sale of oil and gas rights held every month. 100 parcel requests per month from industry.
<b>Annual External Referrals</b>	1200
<b>Peak External Requests</b>	Once per month - 100 parcel requests on average

## A.6.5 Oil and Gas Titles High-Level Interest Management Process with ILRR Intersects

### A.6.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed by Oil and Gas Titles that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on Oil and Gas Titles.



### A.6.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to Oil and Gas Titles. The following represents Oil and Gas Titles-specific intersect and impacts:

<b>Intersect Point</b>	<b>Intersect</b>	<b>Impact</b>
Review available information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b></p> <p>The ILRR may be made available to Proponent prior to preparation of a request for a parcel. Providing access to ILRR will allow the proponent to review a wider range of interest information (existing oil and gas tenures and other). This additional information will allow the proponent to make better-informed decisions when preparing a parcel request and eliminate requests where a potential conflicting right/interest exists.</p>
Determine request eligibility	Display registered interests	<p><b>Faster Initial Statusing</b></p> <p>Oil and Gas Titles may reference the ILRR for preliminary statusing during the Pre-Application phase. A preliminary check of the ILRR for an application location may identify existing conflicting rights/interests that would prevent Oil and Gas Titles from approving the application. This would allow Oil and Gas Titles to issue a definitive “rejection” earlier in their process.</p>
Perform OGTRP research	Display available information	<p><b>Support for Referral Process</b></p> <p>Oil and Gas Titles may reference the ILRR for OGTRP research. Would provide OGT with additional resources for determining Park and First Nations interests. Would also like to be able to search for Crown subsurface interests (unassigned interests)</p>
Determine referral agencies	Display agencies for referral	<p><b>Support for Referral Process</b></p> <p>Oil and Gas Titles may be able to use a reference to an application in the ILRR (with associated location information) as part of Referral Packages. This may reduce the amount of effort required to prepare Referral Packages.</p>
Assemble referral packages	Record Parcel request	<p><b>System Integration</b></p> <p>Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to transfer request data when the parcel is being sent out to referral. This will require the development of an interface between the systems. The transfer of data from Sales Parcel System →ENGIS→LRDW to ILRR may also result in data cleanup work, if ILRR rejects data transfers due to basic data validation errors.</p>
Review request and URL	Display request/mapping information	<p><b>Support for Referral Process</b></p> <p>Referral Agencies may be able to reference the application in ILRR when reviewing a Referral Package from Oil and Gas Titles.</p>

<i>Intersect Point</i>	<i>Intersect</i>	<i>Impact</i>
Receive referral responses	Update request details	<b>System Integration</b> Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to transfer updated request data when changes occur in the Oil and Gas Titles applications. This will require the development of an interface between the systems. The transfer of data from Sales Parcel System →ENGIS→LRDW to ILRR may also result in data cleanup work, if ILRR rejects data transfers due to basic data validation errors.
Evaluate all available input	Display available information	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for Oil and Gas Titles to re-reference the status of a requested location in ILRR as part of the final evaluation of a parcel
Adjudicate bids	Update status of request	<b>System Integration</b> Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to facilitate the synchronization of changes to a parcel as it is processed by Oil and Gas Titles (during and after the referral processes)
Issue agreement	Record legal interest	<b>System Integration</b> Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to facilitate the synchronization of changes to a parcel when it is “sold” by Oil and Gas Titles. If a tender offer for a parcel is accepted, then the status updated to “Granted” and the owner name is updated. If OGT rejects all offers for a particular parcel then the record would be deleted from ILRR.
Receive and file updated title information	Update legal interest	<b>System Integration</b> Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to facilitate the synchronization of changes to a parcel when it is “sold” by Oil and Gas Titles. If a tender offer for a parcel is accepted, then the status updated to “Granted” and the owner name is updated. If OGT rejects all offers for a particular parcel then the record would be deleted from ILRR.
Issue Agreement	Record Legal interest	<b>System Integration</b> Sales Parcel System →ENGIS→LRDW will require integration with the ILRR to facilitate the synchronization of changes to title when OGT updates right information (mainly ownership).
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> OGT will be able to use the ILRR query and reporting functions to support planning processes.

## A.6.6 Oil and Gas Titles Data Quality Issues

### A.6.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Petroleum Titles data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Petroleum Tenures	Spatial – inaccurate tenure mapping due to PNG grid slivers.	1.87	MSRM is currently engaged in improving the quality of the PNG grid, particularly in the area of reducing the number of polygon slivers in the data set. This should eliminate the data issue for new Tenures that are associated with the PNG grid.
2	Petroleum Tenures	PNG tenures within the Peace River Block are suppose to follow Township, Range, and Section boundaries but they do not since much of the PRB was not surveyed.	1.74	The tenures located in the Peace River Block should be modified to reference the corrected PNG grid. There may be a significant effort to correctly switch the spatial referencing approach from township, range and section boundaries to PNG grid, but this will be offset by the benefits of adopting a consistent approach to modeling location between all PNG tenures.
3	Petroleum Tenures	No Company Registration Numbers	1.70	This issue is not expected to cause significant problems with client use of ILRR for staking. Company registration numbers could be added to rights information. Business case for doing this should be explored.

### A.6.6.2 Business Process Changes for Data Quality Improvement

*The new PTO system and related processes should provide a high level of support for ILRR requirements.*

Petroleum Titles will be using the new Petroleum Titles Online (PTO) system to accept requests and associated location information. One of the design requirements for PTO is that it support the requirements of ILRR. The information stored in EnerGIS, the Sales Parcel System and the Petroleum Titles System should be sufficient to generally support the requirements of ILRR.

### A.6.7 Transition Complexity Assessment for Oil and Gas Titles

Based on the information available, the following is a preliminary assessment of Oil and Gas Titles' Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Low	<ul style="list-style-type: none"> <li>Processes introduced as part of PTO implementation should provide good support for ILRR</li> </ul>
Organization	Low	<ul style="list-style-type: none"> <li>Automating processes through PTO will minimize organizational impacts of supporting ILRR</li> </ul>
Technology Environment	Low / Moderate	<ul style="list-style-type: none"> <li>Interfaces to EnerGIS/SPS/PTS/LRDW need to be considered during technical design phase</li> </ul>
Data Quality	Low	<ul style="list-style-type: none"> <li>Newly accepted data through PTO should be well suited to support ILRR</li> <li>Some outstanding issues with the PNG grid and legacy tenure locations are being addresses by MSRM</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Low</b>	

## **A.7 Ministry of Forests**

### **A.7.1 Ministry of Forest Overview**

The general responsibilities of the Ministry of Forests includes:

- Protect, manage and improve the province's forest and range resources
- Establish performance standards ensuring long-term resource sustainability and health
- Enforce compliance with the regulations of the *Forest and Range Practices Act*
- Monitor pricing and revenue requirements for a more competitive forest sector
- Enhance opportunities to generate wealth from forest and range resources
- Maintain and expand international markets for B.C. forest products
- Ensure the public receives fair value for the use of its forest and range resources

The ministry is organised into three Forest Regions (Coast, Northern Interior, Southern Interior) and a total of twenty-nine Districts within these regions.

### **A.7.2 Ministry of Forest Managed Rights and Interests**

The Ministry of Forests currently manages the following rights and interests:

1. Christmas Tree Permit
2. Community Forest Agreement
3. Community Salvage Licence
4. Forest Land Reserve
5. Forest Licence
6. Forest Road Permit
7. Forest Road Use Permit
8. Forest Service Road
9. Forestry Licence to Cut
10. Free-Use Permit
11. Grazing Licence
12. Grazing Permit
13. Hay Cutting Licence
14. Hay Cutting Permit
15. HCA permits - alterations to trails, pursuant to agreements
16. Interpretive forest sites, recreation sites and recreation trails
17. Master Licence to Cut
18. Occupant Licence to Cut
19. Ongoing Silviculture Obligation
20. Private Timber Marks

21. Provincial Forest
22. Special Use Permit
23. Timber Licence
24. Timber Sale Licence
25. Timber Supply Area (TSA)
26. Tree Farm Licence
27. Woodlot License

### **A.7.3 Ministry of Forest Interest Data Management Systems**

The Ministry of Forests utilizes the following applications in the management of interest data:

- FTA, replacing:
  - FAMAP
  - FTAS
- INCOSADA
- RESULTS
- LRDW
- FRMS

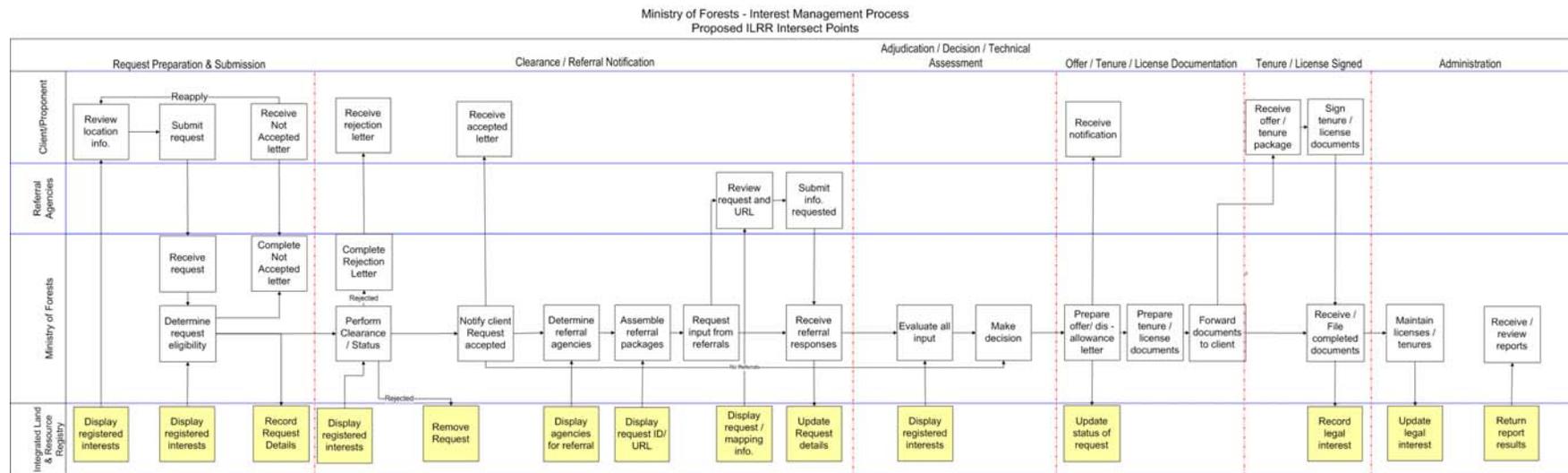
### **A.7.4 Ministry of Forest Transaction Volumes**

Ministry of Forests has not yet provided information on transaction volumes. Will be determined during the System Architecture phase.

## A.7.5 Ministry of Forest High-Level Interest Management Process with ILRR Intersects

### A.7.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed Ministry of Forests that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on Ministry of Forests.



### A.7.5.2 *Intersects and Impacts*

All impacts identified in Section 8.2 apply to Ministry of Forests. The following represents Ministry of Forests-specific intersect and impacts:

Intersect Point	Intersect	Impact
Review location information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR will be made available to Proponents prior to preparation of a request. Providing access to ILRR will allow the proponent to review a wider range of interest information. This additional information will allow the proponent to make better-informed decisions when preparing a request and reduce the number requests where an obvious conflicting right/interest exists.</p>
Determine request eligibility	Display registered interests	<p><b>Faster Initial Stating</b> MOF may reference ILRR for preliminary stating. A preliminary check of the ILRR for a request may identify existing conflicting rights/interests that would prevent MOF from approving the request. This would allow MOF to issue a definitive “rejection” earlier in their process.</p> <p><b>System Integration</b> FTA will require integration with the ILRR to facilitate the transfer of a request to ILRR when MOF accepts a request.</p>
Perform Clearance/Status	Display registered interests Remove Request	<p><b>System Integration</b> FTA will require integration with the ILRR to facilitate the deletion of a request record in ILRR when MOF rejects the request.</p>
Determine referral agencies	Display agencies for referral	<p><b>Support for Referral Process</b> MOF will be able to use the ILRR to assist them in identifying agencies that will need to be included in the referral process. This will be done by running a status report for the request’s location to identify agencies who have interests that intersect with the request.</p>
Assemble referral packages	Display request ID/ URL	<p><b>Support for Referral Process</b> MOF may be able to use a reference to a request identifier in the ILRR (possibly with associated location information) as part of assembling Referral Packages. This may reduce the amount of effort required to prepare Referral Packages.</p>
Review request and URL	Display request and/or mapping information	<p><b>Support for Referral Process</b> Referral Agencies may be able to directly reference the request in ILRR based on the request identifier when reviewing a Referral Package from MOF.</p>

Intersect Point	Intersect	Impact
Review referral responses	Update request details	<b>System Integration</b> FTA will require integration with the ILRR to facilitate the synchronization of changes to a request as it is processed by MOF.
Evaluate all available input	Display registered interests	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for MOF to re-reference the status of a request location in ILRR as part of the final evaluation of a request.
Prepare offer/ intent/disallowance letter	Update status of request	<b>System Integration</b> FTA will require integration with the ILRR to facilitate the updating of the request status when a decision has been made. This may include changing the request status in ILRR (if MOF makes an Offer) or deleting the request record (if MOF rejects the request)
Receive, File completed tenure	Record legal interest	<b>System Integration</b> FTA will require integration with the ILRR to facilitate the transfer of interest information when an interest/right has been granted by MOF.
Maintain licenses /tenures	Update legal interest	<b>System Integration</b> FTA will require integration with the ILRR to ensure synchronization between the two systems when MOF updates interest/tenure information.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> MOF will be able to use the ILRR query and reporting functions to support planning processes.

## A.7.6 Ministry of Forest Data Quality Issues

### A.7.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Ministry of Forests data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Forest Tenure	Up to 30% missing data	2.26	Currently, about ten thousand map notations exist that delineate the location of map reserves associated with primary forest tenures. These map notations exist as a combination of soft and hard copy information. Tenure information related to these map notations is available in hard copy files in various regional offices. Map Notations in the Forest Atlas should be fully converted in digital format and linked to descriptive information about these rights. This info could be consolidated (in Incosada?) if funding were made available for data entry/conversion and linking to the Forest Atlas polygons.
2	Forest Tenure	Up to 2 years out of date	2.17	See Data Item #1 above.
3	Forest Tenure	Lack of Consistency Spatial/Attribute	2.09	See Data Item #1 above. Mechanisms should be explored to link the Land Information Administration Management (LIAM) system to map notations so that sub-tenures can be queried by ILRR. The LIAM system is used to store sub-tenures and is currently managed as a Clipper database. There is an existing link between the sub-tenures and the map notation entities in the Forest Atlas, but sub-tenures do not have explicit geometry associated with them. The best method to relate these sub-tenures to their parent tenures should be explored so that this information is exposed for use within ILRR.
4	Forest Roads	Forest Act Roads – FTAS/INCOSADA Inconsistencies	2.00	Awaiting FTA data quality review results.
5	Forest Roads	Special Use Permit Roads – Duplication between ROADS and PERMITS in INCOSADA	1.95	Additional investigation required.
6	Forest Roads	Special Use Permit Roads – FTAS / INCOSADA Inconsistencies	1.95	Awaiting FTA data quality review results.

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
7	Forest Roads	Forest Service Roads – FTAS inaccurate.	1.95	Awaiting FTA data quality review results.
8	Forest Roads	Forest Service Roads – FTAS/FRMA not linked to INCOSADA	1.85	Awaiting FTA data quality review results.

### A.7.6.2 Business Process Changes for Data Quality Improvement

**New Exhibit A attachments are being submitted digitally as XML.**

New Exhibit A location descriptions are being submitted to MoF digitally as XML files. This should ensure that all new tenure requests have location information associated with them at the point they are accepted by MoF.

**ILRR will be used in the future to perform land statusing for Forest Tenure requests.**

Currently, MoF use the LRDW to perform basic land status checks for tenure requests. It is anticipated that they will use ILRR in the future for this business function.

### A.7.7 Transition Complexity Assessment for Ministry of Forests

Based on the information available, the following is a preliminary assessment of the Ministry of Forests' Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	High	<ul style="list-style-type: none"> <li>Multiple business units within MoF must be aligned with ILRR</li> </ul>
Organization	High	<ul style="list-style-type: none"> <li>Distributed staff</li> <li>Little or no staff capacity to support ILRR transition</li> </ul>
Technology Environment	High	<ul style="list-style-type: none"> <li>Multiple systems (LRDW, FTA, INCOSADA, LIAM) must be considered</li> </ul>
Data Quality	High	<ul style="list-style-type: none"> <li>Significant data entry and QA required on MoF data sets (e.g. Forest Atlas)</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## ***A.8 Ministry of Sustainable Resource Management, Land Information Services Division, Registries and Titles Department, Archaeology and Registry Services Branch***

### **A.8.1 Archaeology and Registry Services Branch Overview**

Provincial archaeology programs are designed to encourage and facilitate the protection, conservation and public appreciation of British Columbia's archaeological resources as mandated by the Heritage Conservation Act. Services are delivered through two program areas in the Archaeology and Registry Services Branch:

- The **Archaeological Permitting Section** administers a permit system under the Act, represents archaeological resource interests on review committees established under the Environmental Assessment Act, and provides archaeological resource input to the development of provincial Land and Resource Management Plans.
- The **Archaeological Registry Section** administers the Provincial Heritage Register under the Heritage Conservation Act, and records, maintains, and distributes heritage resource information. This information supports land use planning and impact assessments at the provincial, regional, and local levels, and is typically supplied to private industry, other government agencies, first nations, archaeologists, and the general public.

### **A.8.2 Archaeology and Registry Services Branch Managed Rights and Interests**

Archaeology and Registry Services currently manages the following rights and interests:

1. Archaeological Sites
2. Heritage Conservation Act Alteration Permit
3. Heritage Conservation Act Permit

### **A.8.3 Archaeology and Registry Services Branch Interest Data Management Systems**

The Archaeology and Registry Services Branch utilizes the following applications in the management of interest data:

- HRIA

In addition, Archaeology site permits are maintained in an Excel spreadsheet (PERMLOG).

### **A.8.4 Archaeology and Registry Services Branch Transaction Volumes**

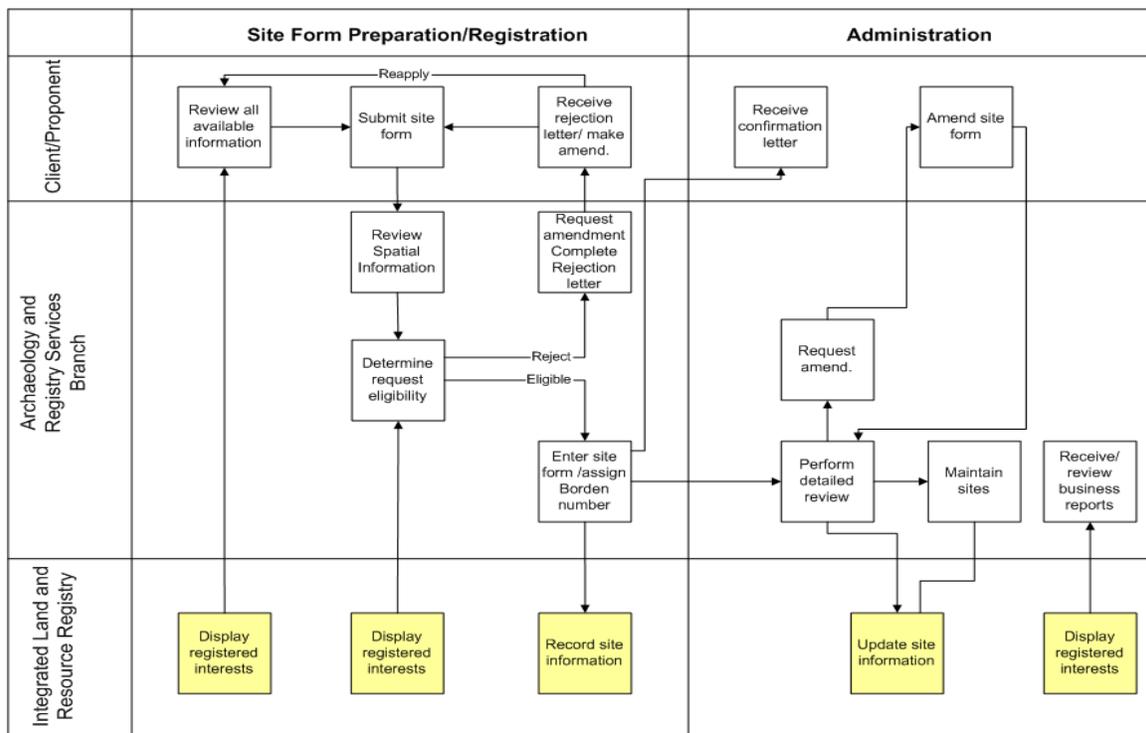
Archaeology and Registry Services Branch has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

### A.8.5 Archaeology and Registry Services Branch High-Level Interest Management Process with ILRR Intersects

#### A.8.5.1 Process Model with ILRR Intersects – Archaeological Sites Registry

The following model describes the interest management processes followed the Archaeological Sites Registry that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Archaeological Sites Registry.

MSRM - Heritage Conservation Act Sites Registry: Proposed ILRR Intersect Points



### A.8.5.2 Intersects and Impacts – Archaeological Sites Registry

All impacts identified in Section 8.2 apply to Archaeological Sites Registry. The following represents Archaeological Sites Registry-specific intersect and impacts:

Intersect Point	Intersect	Impact
Review all available location information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR may be made available to Proponent prior to preparation of a site form. Providing access to ILRR will allow the proponent to review a wider range of interest information (more than just archaeology). Will be useful as the applicant should be providing a legal description (PID's, etc). Also may be able to identify existing archaeology sites that they may be duplicating.</p> <p><b>Increase Inquiries/Workload</b> There is the potential for the general public to see information in the ILRR as relates to their property and this would generate more calls/inquiries – more work for the branch.</p>
Determine request eligibility	Display registered interests for area	<p><b>Faster Initial Statusing</b> Archaeology will be able to use the Status report to view other interests that intersect with the Site location.</p>
Enter Site form/assign Borden number	Record Request Information	<p><b>System Integration</b> Register site forms in ILRR once Borden number has been assigned with a status of "Request". Will require mechanism for transferring data to ILRR from HRIA.</p>
Perform detailed review	Update site information	<p><b>System Integration</b> Synchronize changes/updates to site in ILRR. Will require mechanism for transferring data to ILRR from HRIA.</p>
Maintain Sites	Update site information	<p><b>System Integration</b> Synchronize changes/updates to site in ILRR. Will require mechanism for transferring data to ILRR from HRIA.</p>
Receive review business reports	Display registered interests	<p><b>Enhanced Information Availability for Planning</b> Archaeology will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.8.6 Archaeology and Registry Services Branch Data Quality Issues

### A.8.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Archaeology data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Archaeology Sites	Inaccurate location and spatial representation of Archaeological sites	2.55	Efforts are underway to convert archaeological site locations that have traditionally been modeled as points to polygon representations that will more accurately reflect the location and boundary of sites.
2	Archaeology Sites	Incomplete attribute information for Archaeology site records	2.09	In most cases of land statusing, the simple presence of an archaeological site nearby is sufficient to cause a referral to the Archaeology and Registry Services Branch. Indeed, in the case of most archaeological sites it is desirable to restrict the information that is returned about these sites by queries against ILRR.
3	Archaeology Sites	Archaeological Permits - no spatial reference	2.06	As a rule, archaeological permits are granted within the bounds of archaeological sites. Consequently, for the purposes of detecting land status conflicts, the location of archaeological sites alone should be sufficient to communicate the interests of the Archaeology and Registry Services Branch for a particular area.

### A.8.6.2 Business Process Changes for Data Quality Improvement

*Current data management practice for archaeological sites should support ILRR well.*

In recent years, data collection standards have improved significantly at the Archaeology and Registry Services Branch. Furthermore, the implementation of the Heritage Resource Information Application (HRIA) and the related HRIA database has increased the degree to which business rules are applied during data entry and maintenance.

### A.8.7 Transition Complexity Assessment for Archaeology and Registry Services Branch

Based on the information available, the following is a preliminary assessment of the Archaeology and Registry Services Branch's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Low	<ul style="list-style-type: none"> <li>Existing processes appear to support ILRR well</li> </ul>
Organization	Low	<ul style="list-style-type: none"> <li>Centralized data management and related processes</li> </ul>
Technology Environment	Low	<ul style="list-style-type: none"> <li>HRIA system should well support ILRR</li> </ul>
Data Quality	Low	<ul style="list-style-type: none"> <li>Ongoing data quality improvements should support ILRR requirements</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Low</b>	

## ***A.9 Ministry of Sustainable Resource Management, Land Information Services Division, Registries and Titles Department, Surveyor General Branch***

### **A.9.1 Surveyor General Overview**

The Surveyor General Branch provides professional advice on a variety of survey and boundary-related issues, including boundary disputes, boundary determinations, interpretation of survey and tenure records, and determination of natural boundaries. These services are provided to other government bodies, land surveyors and in special circumstances the general public.

The mandate of the Surveyor General Branch is to:

- Manage the cadastral survey structure of the province as a foundation for land title and tenure-related land information systems.
- Manage all surveys of Crown lands under the jurisdiction of the ministry.
- Maintain the parcel registry of the Crown Land Registry.
- Provide professional guidance on survey issues to government and the public.
- Maintain the inter-provincial boundaries of the province as part of a tripartite Boundary Commission.

### **A.9.2 Surveyor General Managed Rights and Interests**

The Surveyor General Branch currently manages the following rights and interests:

1. Land Act Parcel Cancellation
2. Administrative Boundary

### **A.9.3 Surveyor General Interest Data Management Systems**

The Surveyor General utilizes the following applications in the management of interest data:

- Tantalus
- ICP

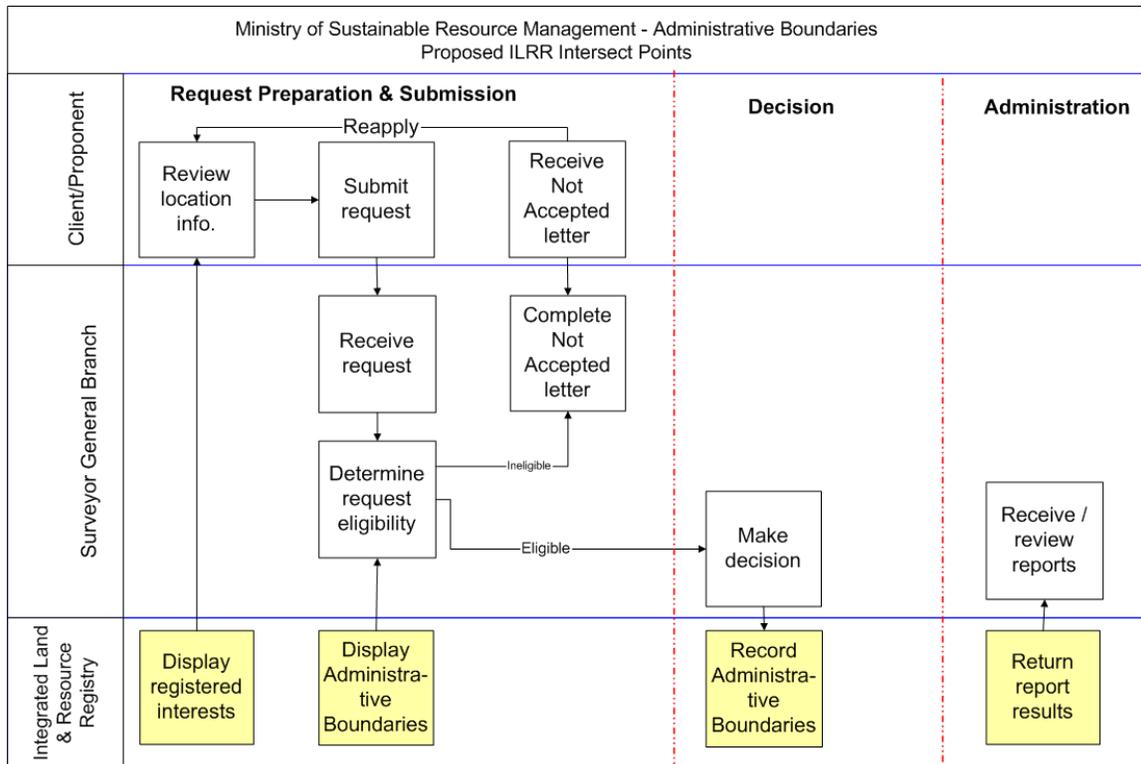
### **A.9.4 Surveyor General Transaction Volumes**

The Surveyor General has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

## A.9.5 Surveyor General High-Level Interest Management Process with ILRR Intersects

### A.9.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Surveyor General that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Surveyor General.



### A.9.5.2 *Intersects and Impacts*

All impacts identified in Section 8.2 apply to the Surveyor General. The following represents the Surveyor General-specific intersect and impacts:

Intersect Point	Intersect	Impact
Review location information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available</b></p> <p>Providing access to ILRR will allow MSRM to review a range of interest information, allowing the ministry to make better-informed decisions when planning administrative boundaries.</p>
Determine request eligibility	Display administrative boundaries	<p><b>Faster Initial Statusing</b></p> <p>The Surveyor General will be able to use the Status report to view other interests that intersect with the proposed administrative boundary location.</p>
Make decision	Record administrative boundaries	<p><b>System Integration</b></p> <p>An interface between the systems used to record administrative boundaries and the ILRR will need to be developed to facilitate the transfer of new and changed administrative boundary information to ILRR.</p>
Receive/review reports	Return report results	<p><b>Enhanced Information Availability for Planning</b></p> <p>MSRM will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.9.6 Surveyor General Data Quality Issues

### A.9.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Parcel Fabric data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Parcel Fabric	Missing Spatial Data (outside lower mainland)	2.50	<p>Based on information gathered during the workshops and in various agency interview sessions, the general consensus is that the CCF initiative is expected to complete their data gathering and clean up work in time to support the initial implementation of ILRR in the Northeast.</p> <p>Of greater long term concern is the fact that large portions of the private cadastre for the Lower Mainland will not be available to ILRR during full scale implementation until data sharing agreements are negotiated with some municipal governments (e.g. City of Vancouver, City of Richmond). Agencies such as the Land Titles Office have indicated that the presence of this private cadastre is essential to ILRR being able to access their registry data using a spatial query approach.</p> <p>Due to the fact that the participation of individual municipalities in the ICIS initiative is outside the control of the Surveyor General Branch, it is difficult to suggest meaningful data quality improvement strategies for this data area.</p>
2	Parcel Fabric	Missing Private Parcels in IPF (Spatial only)	2.35	See Data Item #1 above.
3	Parcel Fabric	Missing Crown Parcels for other reasons.	2.32	See Data Item #1 above.
4	Parcel Fabric	Missing Crown Parcels (lack of notification)	2.26	See Data Item #1 above.
5	Parcel Fabric	Missing Rights of Way Attribute Info	2.17	See Data Item #1 above.
6	Parcel Fabric	Missing/Inaccurate Plan Information	2.17	See Data Item #1 above.
7	Parcel Fabric	Missing Land Act Plan Images	1.84	Need to confirm the current status of the 12-month backlog of scanned plans.
8	Parcel Fabric	Missing Spatial Data (lower mainland)	1.71	See Data Item #1 above.

### A.9.6.2 Business Process Changes for Data Quality Improvement

Nearly every agency consulted has indicated that the availability of a complete and accurate cadastre is paramount to the success of ILRR. Despite this, the project team has had significant difficulty assessing the true state of this important data source. This situation is exacerbated by the fact that no one individual among the multiple government agencies working on various aspects of the issue seems to be authorized to speak in an authoritative way on behalf of the initiative to create a single seamless spatial cadastre.

The project team recommends that the current situation regarding agency mandates related to the maintenance of crown and private cadastre be reviewed with the goal of creating a single agency or project office to support the cadastral requirements of ILRR. Applicable legislation should also be reviewed, and possibly amended, to require that cadastre data maintained by local governments is made available to support critical province-wide economic development initiatives such as ILRR.

### A.9.7 Transition Complexity Assessment for Surveyor General

Based on the information available, the following is a preliminary assessment of the Surveyor General's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Low	<ul style="list-style-type: none"> <li>The business volumes are not high and the process is relatively simple.</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>Organizational structure not well understood after March 2004</li> </ul>
Technology Environment	Low	<ul style="list-style-type: none"> <li>Initial assessment indicates that the technical architecture at Surveyor General should not present problems for ILRR integration</li> </ul>
Data Quality	High	<ul style="list-style-type: none"> <li>Major issues with the completeness and quality of the cadastre fabric must be resolved to support ILRR</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## ***A.10 Ministry of Sustainable Resource Management, Land Information Services Division, Registry and Titles Department, Registry Services Section (Land Titles)***

### **A.10.1 Land Titles Overview**

The Land Title branch registers ownership of land in British Columbia and is responsible for the accuracy and security of title for all privately held land parcels. Land Title Offices provide the following services:

- Registration of title - The land title office verifies ownership every time a property is sold, mortgaged, or other interests are created.
- Land title searches - A title search will ascertain the owner of a particular parcel of land and any charges or liens registered on the title.
- Copies of documents and survey plans - When searching a title, copies of related documents, such as transfers, mortgages, easements, judgements, and subdivision or strata plans may be required.

### **A.10.2 Land Titles Managed Rights and Interests**

Land Titles currently manages the following rights and interests:

1. Land Title

### **A.10.3 Land Titles Interest Data Management Systems**

Land Titles utilizes the following system to manage interest data:

- ALTOS
- ICP

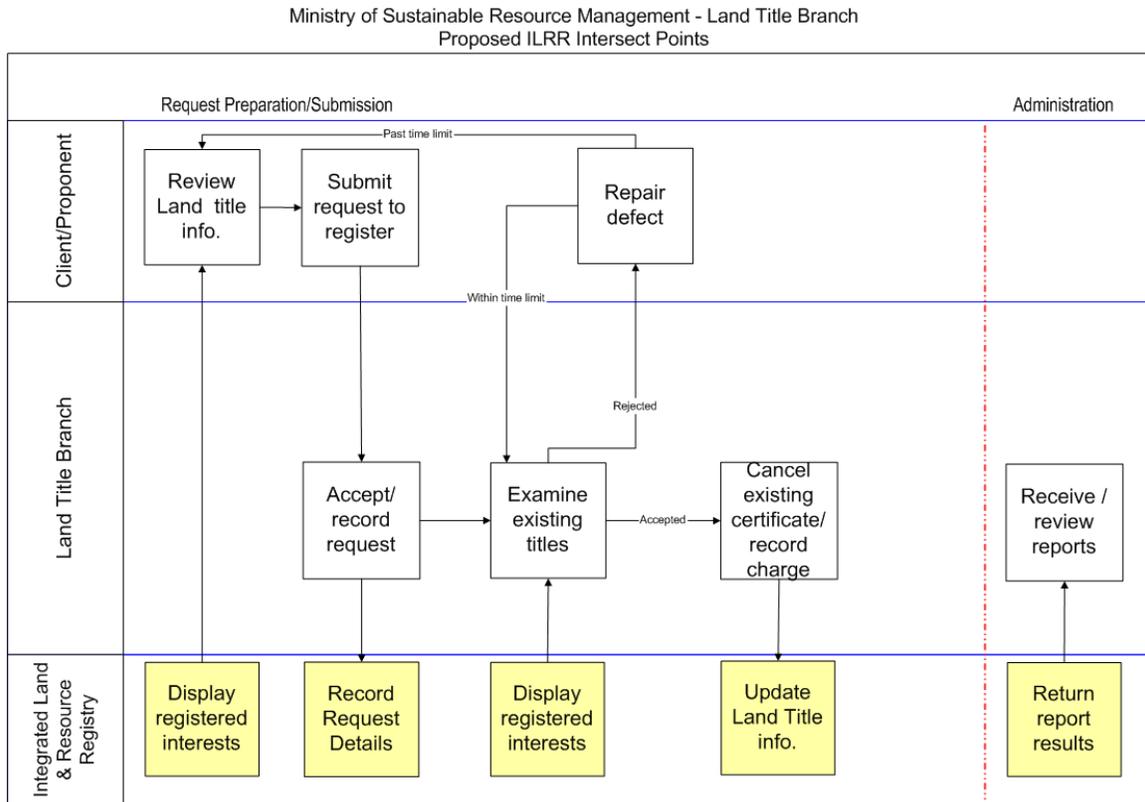
### **A.10.4 Land Titles Transaction Volumes**

Land Titles has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

## A.10.5 Land Titles High-Level Interest Management Process with ILRR Intersects

### A.10.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed Land Titles that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on Land Titles.



### A.10.5.2 *Intersects and Impacts*

All impacts identified in Section 8.2 apply to Land Titles. The following represents Land Titles-specific intersect and impacts:

Intersect Point	Intersect	Impact
Review Land Title information	Display registered interests	<b>Comprehensive Right/Interest Information Available</b> Lawyers and agents for the Land Titles Office may use ILRR for Due Diligence.
Accept/record request	Record request details	<b>System Integration</b> An interface between ALTOS/ICF and the ILRR will need to be developed to facilitate the transfer of new land title information to ILRR.
Examine existing titles	Display registered interests	<b>Comprehensive Right/Interest Information Available</b> Land Titles may reference the ILRR to support investigations during the application phase.
Cancel existing certificate/record charge	Update Land Title information	<b>System Integration</b> An interface between ALTOS/ICF and the ILRR will need to be developed to facilitate the transfer of updated land title information to ILRR.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> LTO will be able to use the ILRR query and reporting functions to support investigation processes.

## A.10.6 Land Titles Data Quality Issues

### A.10.6.1 Data Quality Issues, Priorities and Strategies

Land Titles data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with the Land Titles Office, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	LTO	Ability of the Integrated Cadastral Fabric to provide a spatial linkage to LTO data in ILRR	N/A	The integration of Land Titles Office information within ILRR is entirely dependent on the availability of the CCF, since the CCF will act as the location representation for the information available from the Land Titles ALTOS system via BC Online.
2	LTO	These are currently 40,000 applications which are waiting processing, creating a turnaround time of 4 weeks plus	N/A	This issue is already being dealt with at LTO. The current backlog has been reduced to less than 20,000 applications.

### **A.10.6.2 Business Process Changes for Data Quality Improvement**

**Land Titles Office should inform LWBC of ownership changes that may affect water rights (Related to Data Issue #3 from Land and Water BC).**

Under the Water Act, ownership changes must be reported where they cause a change in the Interest Holder of water rights. This legislative requirement is currently not being met. LTO should adopt the practice of advising Land and Water BC of title changes that may affect a water right administered by LWBC.

### **A.10.7 Transition Complexity Assessment for Land Titles**

Based on the information available, the following is a preliminary assessment of Land Titles's Transition Complexity Rating.

<b>Transition Area</b>	<b>Level of Anticipated Complexity</b>	<b>Comments</b>
Business Processes	Low	<ul style="list-style-type: none"> <li>Existing processes appear to support ILRR well</li> </ul>
Organization	Low	<ul style="list-style-type: none"> <li>No significant demands on LTO organization are anticipated to support ILRR</li> </ul>
Technology Environment	Low	<ul style="list-style-type: none"> <li>ALTOS should support ILRR requirements</li> </ul>
Data Quality	Low	<ul style="list-style-type: none"> <li>Land Titles integration with ILRR depends on the availability of private cadastre fabric. Once this is in place, ALTOS data should support ILRR</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Low</b>	

## ***A.11 Ministry of Sustainable Resource Management – Resource Planning Branch***

### **A.11.1 Resource Planning Branch Overview**

The Resource Management Division of the Ministry of Sustainable Resource Management supports the development and approval of strategic land and water use plans.

### **A.11.2 Resource Planning Branch Managed Rights and Interests**

The Resource Planning Branch currently manages the following rights and interests:

1. LRMP - Zone 1
2. LRMP - Zone 2
3. SRMP - Landscape Unit

### **A.11.3 Resource Planning Branch Interest Data Management Systems**

The Resource Planning Branch does not manage its own operational systems for maintaining interest data. When the Resource Planning Branch requires a record of a interest they utilize the following systems:

- LRDW

### **A.11.4 Resource Planning Branch Transaction Volumes**

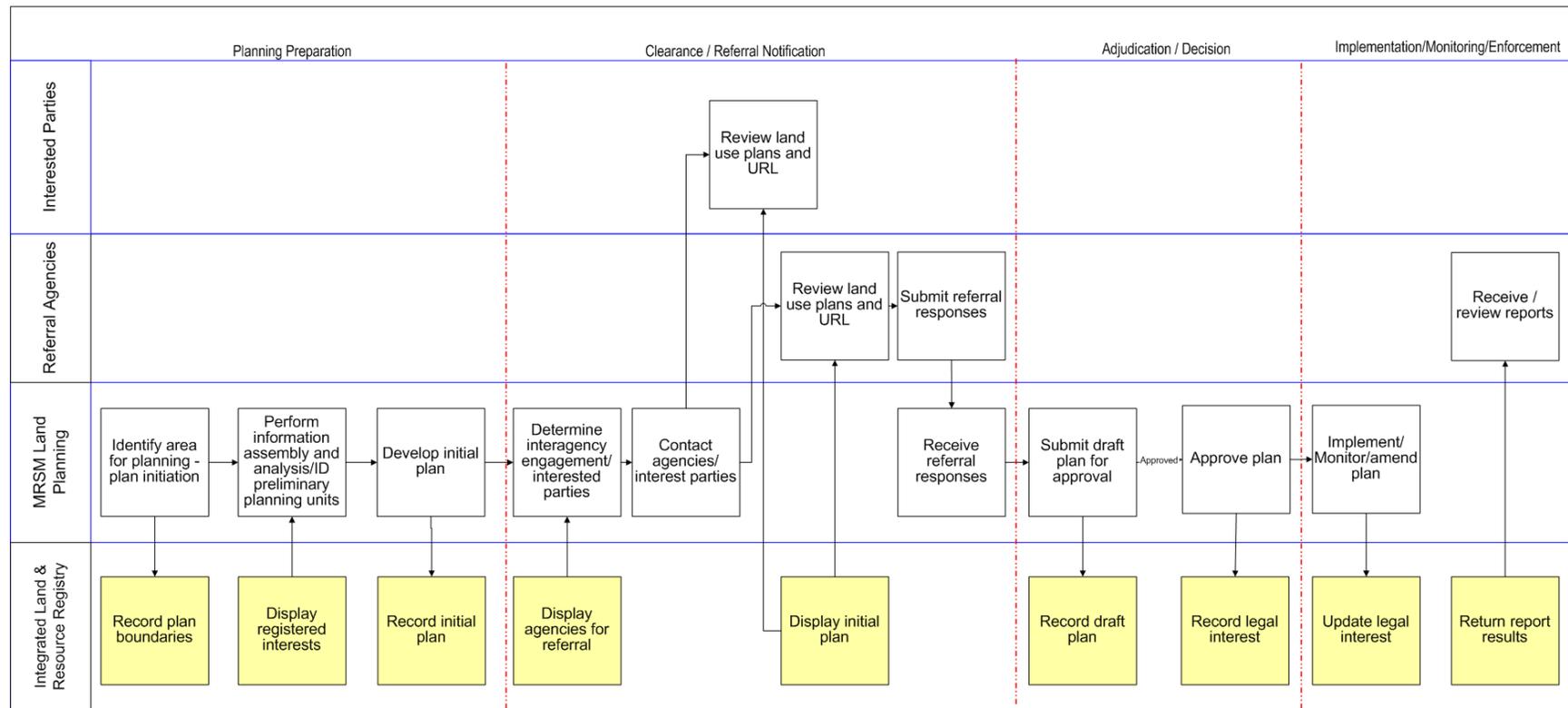
The Resource Planning Branch has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

### A.11.5 Resource Planning Branch High-Level Interest Management Process with ILRR Intersects

#### A.11.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Resource Planning Branch that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Resource Planning Branch.

Ministry of Sustainable Resource Management - Resource Planning Branch



### A.11.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to the Resource Planning Branch. The following represents the Resource Planning Branch-specific intersect and impacts:

Intersect Point	Intersect	Impact
Identify area for planning - plan initiation	Record plan boundaries	<p><b>Comprehensive Right/Interest Information Available</b></p> <p>The ILRR may be made available to MRSM to record plan boundaries. Providing access to ILRR will allow the ministry to review a wide range of interest information. This additional information will allow them to make better-informed decisions when recording plan boundaries.</p>
Perform information assembly and analysis/ID preliminary planning units	Display registered interests	<p><b>Faster Initial Stating</b></p> <p>Although MSRM Land Planning does not engage in the referral process frequently, they may reference ILRR for preliminary stating during the information assembly phase. A preliminary check of the ILRR may identify existing conflicting rights/interests that would need further investigation through Inter-agency Management Committees.</p>
Develop initial plan	Record initial plan	<p><b>System Integration</b></p> <p>An interface between the LRDW and the ILRR will need to be developed to facilitate the transfer of initial land plans to ILRR.</p> <p><b>Business Process Change</b></p> <p>The Resource Planning Branch needs to develop formal business process to capture initial land plan information and ensure that it is recorded in the LRDW in a timely manner.</p>
Determine interagency engagement/interested parties	Display agencies for referral	<p><b>Faster Initial Stating</b></p> <p>Although MSRM Land Planning does not engage in the referral process frequently, they may reference ILRR for preliminary stating during the information assembly phase. A preliminary check of the ILRR may identify existing conflicting rights/interests that would need further investigation through Inter-agency Management Committees.</p>
Review land use plans and URL	Display initial plan	<p><b>Support for Review Process</b></p> <p>Interested parties may be able to use a reference to an identifier in the ILRR (possibly with associated location information) as part of review/approval process.</p>

Intersect Point	Intersect	Impact
Submit draft plan for approval	Record draft plan	<p><b>System Integration</b> An interface between the LRDW and the ILRR will need to be developed to facilitate the transfer of draft land plans to ILRR.</p> <p><b>Business Process Change</b> The Resource Planning Branch needs to develop formal business process to capture draft land plan information and ensure that it is recorded in the LRDW in a timely manner.</p>
Approve plan	Record legal interest	<p><b>System Integration</b> An interface between the LRDW and the ILRR will need to be developed to facilitate the transfer of approved land plans to ILRR. Will also need to ensure that any additional systems that may record results from a land plan (Tantalis, ALTOS) have interfaces with ILRR.</p> <p><b>Business Process Change</b> The Resource Planning Branch needs to develop formal business process to capture approved land plan information and ensure that it is recorded in the LRDW in a timely manner. Will also require formal process for ensuring that any additional interests that are a result of an approved land plan are captured in the appropriate system.</p>
Implement/Monitor/amend plan	Update legal interest	<p><b>System Integration</b> An interface between the LRDW and the ILRR will need to be developed to facilitate the update of approved land plans to ILRR. Will also need to ensure that any additional systems that may record updates to a land plan (Tantalis, ALTOS) have interfaces with ILRR.</p> <p><b>Business Process Change</b> The Resource Planning Branch needs to develop formal business process to capture approved land plan information and ensure that it is recorded in the LRDW in a timely manner. Will also require formal process for ensuring that any additional interests that are a result of an approved land plan are captured in the appropriate system.</p>
Receive / review reports	Return report results	<p><b>Enhanced Information Availability for Planning</b> MSRM will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.11.6 Resource Planning Branch Data Quality Issues

### A.11.6.1 Data Quality Issues, Priorities and Strategies

MSRM Resource Management Division data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with the Core Working Group, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Land Use Planning	Availability of land use planning data	N/A	Currently, land use planning geometry is stored in the LRDW and in various regional databases. The related attributes for land use area polygons are stored in a variety of regional data systems. There is an internal initiative at Resource Management Division to consolidate land-planning information within a single standard architecture (likely the LRDW). This process should make the data necessary to support ILRR available in the LRDW.
2	Land Use Planning	Completeness of land use planning data	N/A	Approximately 85% of the land area of BC is subject to a land use plan. Of this area, approximately 50% of the associated land use planning area data is available in digital form. The remainder of the data will have to be digitized from hard copy maps. Land use planning area attributes will also have to be added and linked to these polygons once they have been digitized.

### **A.11.6.2 Business Process Changes for Data Quality Improvement**

Significant business process change is not anticipated in order for MSRM Resource Management Division data to be utilized by ILRR. Once the data are converted and consolidated within a single architecture, regional updates that occur as a function of the land planning process will have to be migrated to ILRR.

### **A.11.7 Transition Complexity Assessment for Resource Planning Branch**

Based on the information available, the following is a preliminary assessment of the Resource Planning Branch’s Transition Complexity Rating.

<b>Transition Area</b>	<b>Level of Anticipated Complexity</b>	<b>Comments</b>
Business Processes	Low	<ul style="list-style-type: none"> <li>Current data management processes should support ILRR</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>Distributed staff</li> <li>Processes may vary from region to region. Possible impacts to ILRR should be investigated.</li> </ul>
Technology Environment	Low	<ul style="list-style-type: none"> <li>Data required to support ILRR is currently being consolidated into the LRDW</li> </ul>
Data Quality	Moderate	<ul style="list-style-type: none"> <li>Some data automation of land use planning areas will be required to support ILRR</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Moderate</b>	

## **A.12 Ministry of Sustainable Resource Management – Contaminated Sites**

### **A.12.1 Contaminated Sites Program Overview**

The Corporate Land and Resource Governance (CLRG) Division supports the Ministry's goal of sound governance of land and resource management. Implementing this goal ensures that sustainable resource management is supported through the provision of clear and client-focused land, water and resource policies and legislation and that crown land and resource decision are informed by First Nation interests.

CLRG provides leadership to the ministry and associated agencies through:

- Strategic policy direction for land and water management, fee and license; property assessment and revenue;
- Managing the ministry's legislation, deregulation initiatives; service planning, performance measurement, program evaluation and performance auditing;
- Developing sustainability principles, improved application of principles to land and resource management;
- Serving an intergovernmental liaison function with the federal government and other provincial governments to harmonize policies and legislation;
- Strategic policy guidance on First Nations consultation issues and mandates for negotiations concerning land, water and other natural resources; and,
- Development of a governance framework, corporate policy, inventory and accountability framework for the management of contaminated provincial lands and Crown contaminated sites

### **A.12.2 Contaminated Sites Program Managed Rights and Interests**

The Contaminated Sites Program currently manages the following rights and interests:

1. Contaminated Sites

### **A.12.3 Contaminated Sites Program Interest Data Management Systems**

Currently no central system exists to manage contaminated site data although Ministry of Transportation and BCBC both have data on contaminated sites. CSP is currently in the process of developing a new system (Contaminated Sites Database – CSD) that will be completed in March 2004. CSP has made it a requirement of this development that the new system be able to support ILRR requirements.

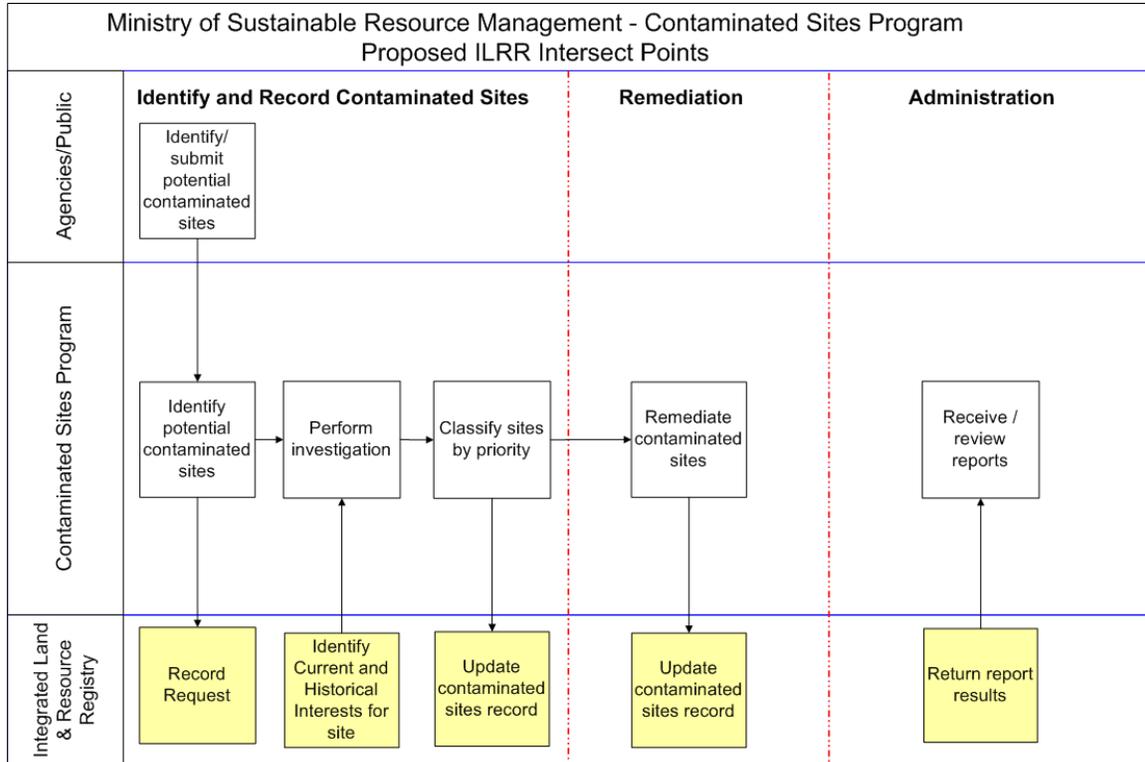
### **A.12.4 Contaminated Sites Program Transaction Volumes**

The Contaminated Sites Program has not yet provided information on transaction volumes. Given the nature of their business it is anticipated that their input volumes will be quite low but this will be determined during The System Architecture phase.

## A.12.5 Contaminated Sites Program High-Level Interest Management Process with ILRR Intersects

### A.12.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Contaminated Sites Program that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Contaminated Sites Program.



### A.12.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to the Contaminated Sites Program. The following represents the Contaminated Sites Program-specific intersect and impacts:

Intersect Point	Intersect	Impact
Identify potential contaminated sites	Record request	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR will be made available to MRSM to all them to review a wide range of interest information and record contaminated site information.</p> <p><b>System Integration</b> The CSD (currently in development) will require an interface with ILRR so that information on potential contaminated sites may be made available to other Interest Granting Agencies. Note – this information is potentially very sensitive and may require interest type/status specific access controls.</p>
Perform investigation	Identify current and historical interests for site	<p><b>Access to Consolidated Land Status Information</b> MSRM may reference ILRR to identify existing rights/interests that could be affected by a potential contaminated site.</p>
Classify sites by priority	Update contaminated sites record	<p><b>System Integration</b> The CSD (currently in development) will require an interface with ILRR so that updates to contaminated sites information may be made available to other Interest Granting Agencies. Note – this information is potentially very sensitive and may require interest type/status specific access controls.</p>
Remediate contaminated sites	Update contaminated sites record	<p><b>System Integration</b> The CSD (currently in development) will require an interface with ILRR so that updates to contaminated sites information may be made available to other Interest Granting Agencies. Note – this information is potentially very sensitive and may require interest type/status specific access controls.</p>
Receive/review reports	Return report results	<p><b>Enhanced Information Availability for Planning</b> MSRM will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.12.6 Contaminated Sites Program Data Quality Issues

### A.12.6.1 Data Quality Issues, Priorities and Strategies

Crown Contaminated Sites Program (CCSP) data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with the CCSP, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	CCSP	Availability of existing contaminated sites data	N/A	CCSP does not have a comprehensive inventory of contaminated sites on crown land. Furthermore, there is currently no province-wide central database that contains crown contaminated sites information. BC Buildings Corporation and the BC Ministry of Transportation and Highways each maintain databases with some contaminated sites information. In addition, Land and Water BC has an inventory of abandoned mines and contaminated sites in BC on private land.
2	CCSP	Method and environment for capture for new sites is undetermined	N/A	The CCSP is currently soliciting proposals for the implementation of a centralized crown contaminated sites database. Next year, upon completion of the new system, the Crown Contaminated Sites Program intends to load the BCBC and MoTH data sets into the new environment to create a single repository for crown contaminated sites in BC. One of the requirements for this new system is that it supports the data integration requirements of ILRR. Hence, the expectation is that records entered and maintained in this new environment should readily synchronize with ILRR.

### A.12.6.2 Business Process Changes for Data Quality Improvement

It is expected that the upcoming implementation of the new consolidated crown contaminated sites database will also involve establishing a set of processes at CCSP to ensure regular maintenance of the information in this database.

### A.12.7 Transition Complexity Assessment for Contaminated Sites Program

Based on the information available, the following is a preliminary assessment of the Contaminated Sites Program's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	High	<ul style="list-style-type: none"> <li>▪ Currently, no process for capturing and managing data required by ILRR</li> <li>▪ Implications of recent RFP for the development of a centralized contaminated sites database should be considered</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>▪ Limited organizational capacity to support ILRR transition</li> </ul>
Technology Environment	High	<ul style="list-style-type: none"> <li>▪ No system currently to support ILRR requirements</li> <li>▪ Recent RFP for the development of a centralized contaminated sites database should resolve this situation</li> </ul>
Data Quality	Moderate	<ul style="list-style-type: none"> <li>▪ Data stored in various locations and will need to be integrated once a suitable data management environment is available</li> <li>▪ Completeness of data in BCBC and MoT records should be investigated</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## ***A.13 Ministry of Transportation***

### **A.13.1 Ministry of Transportation Overview**

The Ministry of Transportation is responsible for:

- Creating an integrated provincial transportation plan
- Maintaining and improving the highway system
- Attracting private sector investment and involvement to deliver new infrastructure
- Applications of the Motor Vehicle Act and the Motor Carrier Commission Act

The Ministry of Transportation's first priority is the effective operation of the highway system and the maintenance of British Columbia's valuable highway assets. An effective highway system is reliable and allows goods and services to move through the province efficiently. Rehabilitation, such as repaving, extends the life of our existing provincial highways and bridges and keeps maintenance costs to reasonable levels. Capital projects improve or add to the existing highway network.

### **A.13.2 Ministry of Transportation Managed Rights and Interests**

The Ministry of Transportation currently manages the following rights and interests:

1. Highways

### **A.13.3 Ministry of Transportation Interest Data Management Systems**

The Ministry of Transportation does not manage its own operational systems for maintaining interest data. When the Ministry of Transportation requires a record of an interest they utilize the following systems:

- TANTALIS
- ALTOS

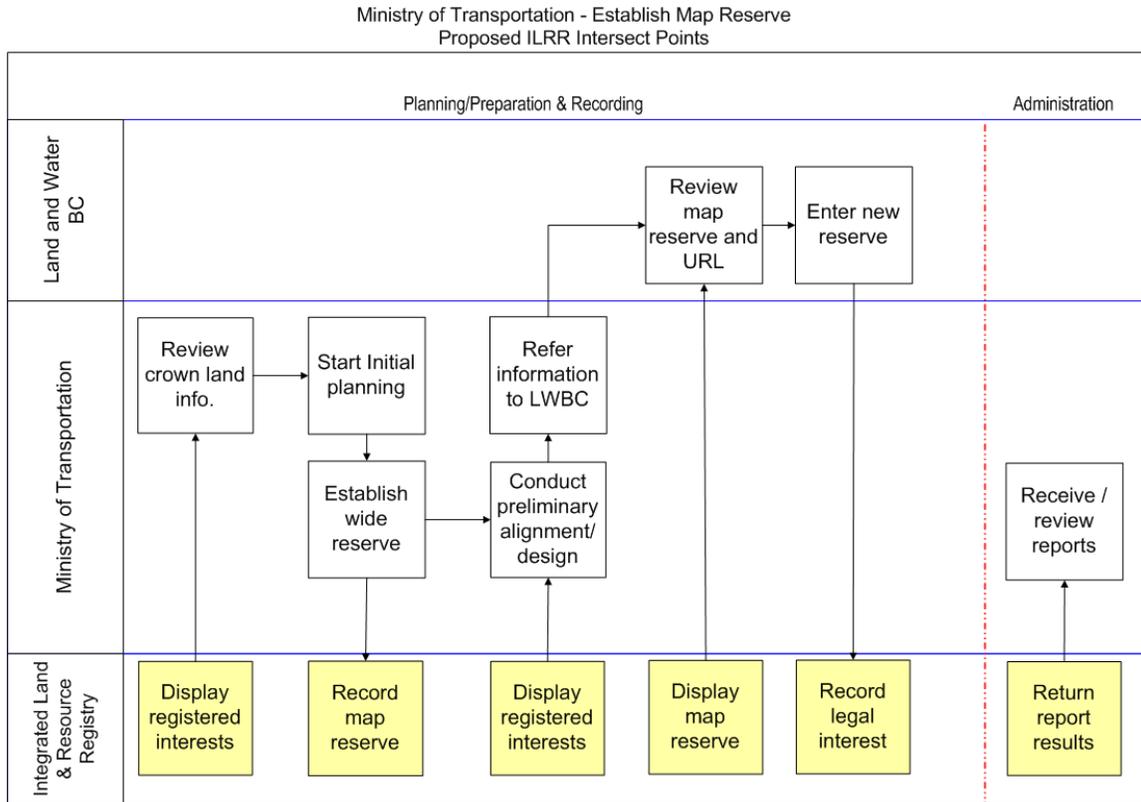
### **A.13.4 Ministry of Transportation Transaction Volumes**

The Ministry of Transportation has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

### A.13.5 Ministry of Transportation High-Level Interest Management Process with ILRR Intersects

#### A.13.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Ministry of Transportation that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Ministry of Transportation.



### A.13.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to the Ministry of Transportation. The following represents the Ministry of Transportation-specific intersects and impacts:

Intersect Point	Intersect	Impact
Review crown land information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to MOT</b></p> <p>The ILRR will be made available to the ministry allowing them to review a wider range of interest information. This additional information will allow the ministry to make better-informed decisions when performing basic research into the location for a new highway, and help to identify where an obvious conflicting right/interest exists.</p>
Establish wide reserve	Record map reserve	<p><b>System Integration</b></p> <p>An interface between Tantalus and ILRR will be required to allow for the transfer of Map Reserve information to ILRR. Note – this will result in information being available on potential highway locations over Crown Land only. No information on potential highways will be available that impacts private land until land acquisition deals have been completed.</p> <p><b>Business Process Improvement</b></p> <p>A formalized process may be required to ensure that Map Reserves are recorded in Tantalus in a timely manner. Note – this information may be sensitive and require interest type/status access control.</p>
Conduct preliminary alignment/design	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to MOT</b></p> <p>The ILRR will be made available to the ministry allowing them to review a wider range of interest information. This additional information will allow the ministry to make better-informed decisions when preparing a preliminary alignment and design, and help to identify where an obvious conflicting right/interest exists.</p>
Review map reserve and URL	Display map reserve	<p><b>Support for LWBC</b></p> <p>LWBC may be able to directly reference the map reserve in ILRR based on the reserve identifier.</p>

Intersect Point	Intersect	Impact
Enter new reserve	Record legal interest	<p><b>System Integration</b> An interface between Tantalus and ILRR will be required to allow for the transfer of Map Reserve information to ILRR. Note – this will result in information being available on potential highway locations over Crown Land only. No information on potential highways will be available that impacts private land until land acquisition deals have been completed.</p> <p>An interface between ALTOS and ILRR will be required to allow for the transfer of Land Title information when land rights are claimed by MOT.</p> <p><b>Business Process Improvement</b> A formalized process may be required to ensure that Map Reserves are recorded in Tantalus in a timely manner. Note – this information may be sensitive and require interest type/status access control.</p>
Receive/review reports	Return report results	<p><b>Enhanced Information Availability for Planning</b> MOT will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.13.6 Ministry of Transportation Data Quality Issues

### A.13.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Ministry of Transportation data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Transportation	Gazetted Roads – no Spatial Database	2.29	Road location data should be captured in digital format. These features may be in scope for CCF – further investigation required.
2	Transportation	Tantalis Missing Crown Land originally acquired for Highways	2.05	These data gaps in Tantalis for MOT controlled lands could potentially be filled by entering this information based on records in LTO and the spatial information in the related scanned survey plans.
3	Transportation	Section 4 Roads – not surveyed	1.76	The business case for surveying Section 4 roads (particularly in the Northeast) should be investigated. There may be an opportunity for agencies and ministries to jointly sponsor collaborative survey efforts (or at a minimum coordinate data collection efforts) to gain efficiencies and improve the business case for proceeding.
4	Transportation	LTO Registered Roads – no Road Parcels in ICF	1.75	See Data Items #1 and #2 above.
5	Transportation	Long-term Tenures on Public Roads	1.61	See Data Item #2 above.
6	Transportation	Short-term Tenures on Public Roads	1.50	See Data Item #2 above.
7	Transportation	Permits on public roads	1.40	See Data Item #2 above.

### **A.13.6.2 Business Process Changes for Data Quality Improvement**

The viability of requiring that digital survey plans be submitted for all future road projects/acquisitions should be investigated.

### **A.13.7 Transition Complexity Assessment for Ministry of Transportation**

Based on the information available, the following is a preliminary assessment of the Ministry of Transportation's Transition Complexity Rating.

<b>Transition Area</b>	<b>Level of Anticipated Complexity</b>	<b>Comments</b>
Business Processes	High	<ul style="list-style-type: none"> <li>▪ Many of the processes required to support ILRR are currently performed manually and will need to be redesigned to use information systems</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>▪ Little staff capacity to support ILRR transition</li> </ul>
Technology Environment	High	<ul style="list-style-type: none"> <li>▪ No system currently to track much of the data that is required for ILRR</li> </ul>
Data Quality	High	<ul style="list-style-type: none"> <li>▪ Extensive survey work for roads may be required to support implementation in the Northeast</li> <li>▪ LTO records for crown lands administered by MoT need to be entered into Tantalus</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## ***A.14 Ministry of Water, Land and Air Protection, Environmental Stewardship Division, Fish and Wildlife Recreation and Allocation Branch***

### **A.14.1 Fish and Wildlife Recreation and Allocation Branch Overview**

The Fish and Wildlife Recreation and Allocation Branch establishes legislation, policies and procedures for managing fishing and hunting activities, and for the allocation of fish and wildlife resources for recreational and commercial use. The Branch manages the provincial fish culture and stocking programs to support recreational fishing and endangered species recovery.

The goal of the provincial Fisheries program is to conserve the natural diversity of fish and fish habitat and to sustainably manage the freshwater sport fishing in B.C. The province exercises delegated authority, under the federal *Fisheries Act*, for the management of non-salmon freshwater fisheries.

Wildlife Management Programs endeavour to maintain and manage wildlife, habitat and sustainable uses and keep a balance between human use of wildlife and conservation by:

- Administering the *Wildlife Act* of British Columbia;
- Preparing all Wildlife Program regulations in consultation with regions and others (See Statutes and Regulations - Wildlife), including preparing the hunting and trapping regulations and all hunting synopses (For more details, choose hunting and trapping information);
- Managing the Guide Industry to ensure compliance and optimum use of resources;
- Administering process for licenses and permits and reviewing, advising and recommending fee structure and levels for licences and permits [The *Wildlife Act* Permit Regulation - an Introduction (brochure)]; and,
- Collecting and analyzing hunter and harvest data.

The Branch also manages the provincial fish culture and stocking programs to support recreational fishing and endangered species recovery.

### **A.14.2 Fish and Wildlife Recreation and Allocation Branch Managed Rights and Interests**

The Fish and Wildlife Recreation and Allocation Branch currently manages the following rights and interests:

1. Angling Guide Licence
2. Guide Outfitter Licence
3. Trapslines

### A.14.3 Fish and Wildlife Recreation and Allocation Branch Interest Data Management Systems

The Fish and Wildlife Recreation and Allocation Branch utilizes the following applications in the management of interest data:

- PAR

### A.14.4 Fish and Wildlife Recreation and Allocation Branch Transaction Volumes

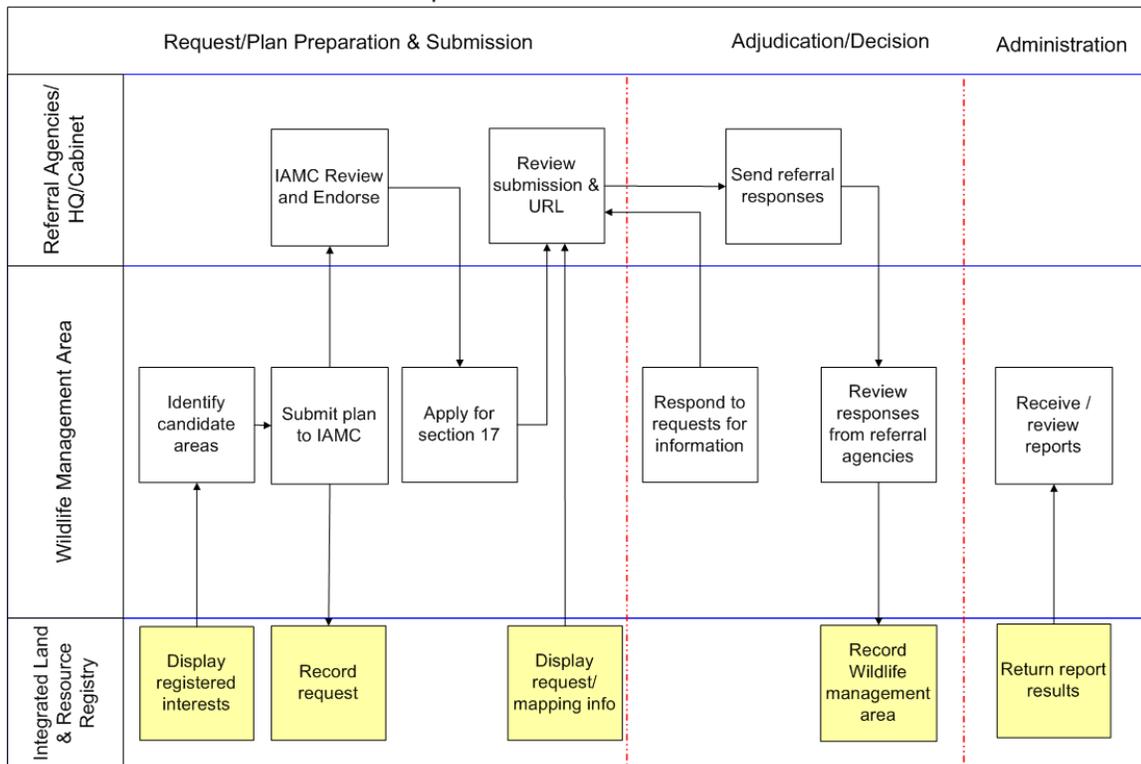
The Fish and Wildlife Recreation and Allocation Branch have not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

### A.14.5 Fish and Wildlife Recreation and Allocation Branch High-Level Interest Management Process with ILRR Intersects

#### A.14.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Fish and Wildlife Recreation and Allocation Branch that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Fish and Wildlife Recreation and Allocation Branch.

Ministry of Water Land & Air Protection - Wildlife Management Area  
 Proposed ILRR Intersect Points



### A.14.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to the Fish and Wildlife Recreation and Allocation Branch. The following represents the Fish and Wildlife Recreation and Allocation Branch-specific intersects and impacts:

Intersect Point	Intersect	Impact
Identify candidate areas	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Fish and Wildlife Recreation and Allocation Branch</b></p> <p>The ILRR will be made available to the branch allowing them to review a wider range of interest information. This additional information will allow the ministry to make better-informed decisions when identifying candidate areas, and help to identify where an obvious conflicting right/interest exists.</p>
Submit plan to IAMC	Record request	<p><b>System Integration</b></p> <p>An interface the systems used to record Wildlife Management Areas and ILRR will be required to allow for the transfer of plan information to ILRR. Note – this information may be sensitive and require interest type/status access control.</p>
Review submission & URL	Display request/mapping information	<p><b>Support for Submission Process</b></p> <p>Cabinet/Headquarters may be able to directly reference the submission in ILRR based on the submission.</p>
Review responses from referral agencies	Record Wildlife management area	<p><b>System Integration</b></p> <p>An interface the systems used to record Wildlife Management Areas and ILRR will be required to allow for the transfer of plan information to ILRR.</p>
Receive/review reports	Return report results	<p><b>Enhanced Information Availability for Planning</b></p> <p>WLAP will be able to use the ILRR query and reporting functions to support planning processes.</p>

## A.14.6 Fish and Wildlife Recreation and Allocation Branch Data Quality Issues

### A.14.6.1 Data Quality Issues, Priorities and Strategies

Fish and Wildlife Recreation and Allocation Branch data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with the Core Working Group, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	FWRAB	Guide Outfitter/Angling Guide Permits not available	N/A	Largely paper based in their management of information, the Fish and Wildlife Recreation and Allocation Branch will need to consider alternatives for storing their permit information in an electronic data system. It may be practical to store this information in Tantalus, or a new custom system may need to be developed.
2	FWRAB	Trapping Permits not available	N/A	See Data Item #1 above.

### **A.14.6.2 Business Process Changes for Data Quality Improvement**

Once an electronic data management environment is in place at Fish and Wildlife Recreation and Allocation Branch, staff will need to adapt their processes to begin using it to enter and maintain permit related information.

### **A.14.7 Transition Complexity Assessment for Fish and Wildlife Recreation and Allocation Branch**

Based on the information available, the following is a preliminary assessment of the Fish and Wildlife Recreation and Allocation Branch’s Transition Complexity Rating.

<b>Transition Area</b>	<b>Level of Anticipated Complexity</b>	<b>Comments</b>
Business Processes	Moderate	<ul style="list-style-type: none"> <li>Existing processes must be redesigned to better support ILRR</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>Capacity of staff to support ILRR transition is not known</li> </ul>
Technology Environment	High	<ul style="list-style-type: none"> <li>No electronic system in place currently to track granting of rights or location</li> </ul>
Data Quality	High	<ul style="list-style-type: none"> <li>Locations are typically based on “metes and bounds” descriptions. Number of locations that must be digitized is not known (need to investigate)</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>High</b>	

## ***A.15 Ministry of Water, Land and Air Protection, Environmental Stewardship Division, Parks and Protected Areas Branch***

### **A.15.1 Parks and Protected Areas Branch Overview**

The Parks and Protected Areas Branch sets provincial direction, priorities and policies for the province's protected areas system. The Branch develops legislation, regulations and protected area management plans, leads conservation programs within all protected areas, and manages the delivery of recreational services and opportunities within protected lands.

### **A.15.2 Parks and Protected Areas Branch Managed Rights and Interests**

The Parks and Protected Areas Branch currently manages the following rights and interests:

1. Crown land acquisitions for Parks/PAs or conservation areas (not designated)
2. Ecological Reserve designations
3. Ecological Reserve Permits for Scientific Research and Educational Purposes
4. Lands owned by NGOs but under long-term lease to WLAP to manage
5. Park Use Permits for land use/occupancy and exclusive or semi-exclusive tenures
6. Parks and Protected Area Designations
7. Permits/authorizations in Wildlife Management Areas
8. Wildlife Management Areas

### **A.15.3 Parks and Protected Areas Branch Interest Data Management Systems**

The Parks and Protected Areas Branch does not manage its own operational systems for maintaining interest data. When the Parks and Protected Areas Branch requires a record of an interest they utilize the following systems:

- TANTALIS
- ALTOS
- LRDW

### **A.15.4 Parks and Protected Areas Branch Transaction Volumes**

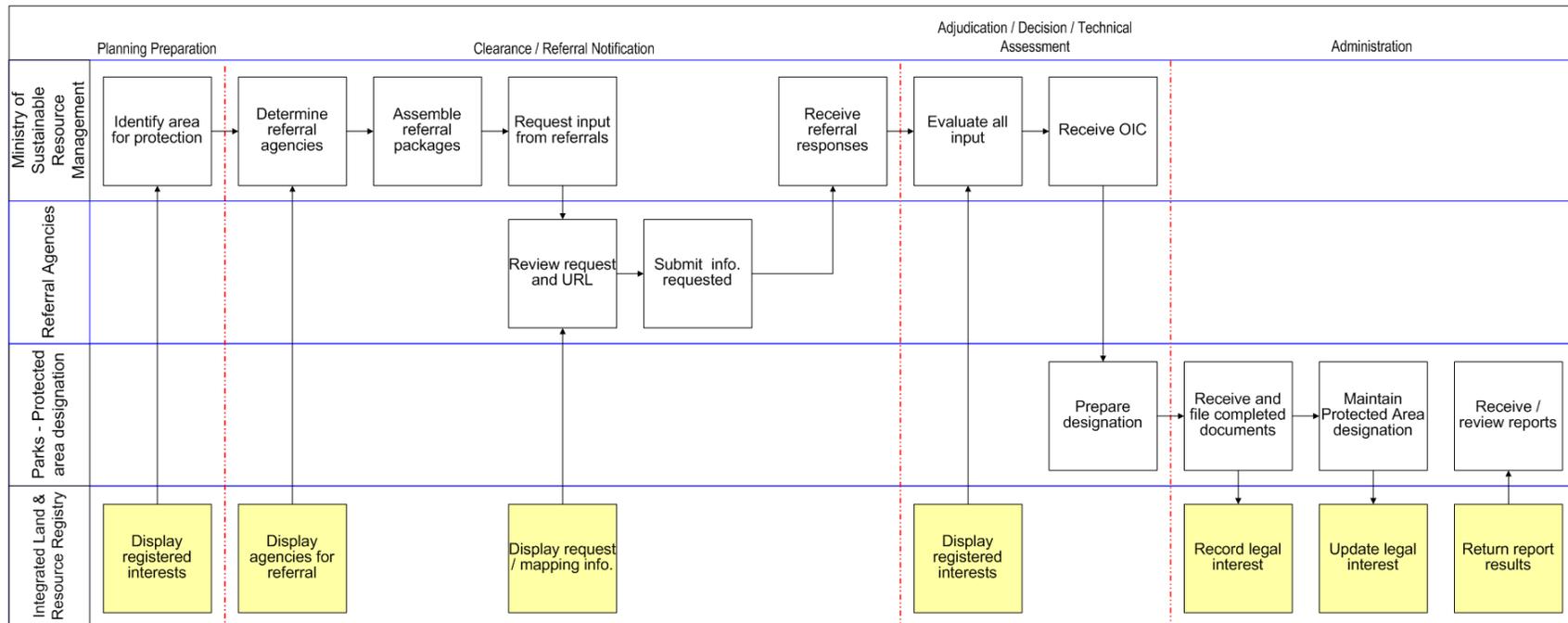
The Parks and Protected Areas Branch have not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

## A.15.5 Parks and Protected Areas Branch High-Level Interest Management Process with ILRR Intersects

### A.15.5.1 Process Model with ILRR Intersects

The following model describes the interest management processes followed the Parks and Protected Areas Branch that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on the Parks and Protected Areas Branch.

Water, Land and Air Protection: Parks Protected Area Designation- Proposed ILRR Intersect Points



### A.15.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to the Parks and Protected Areas Branch. The following represents the Parks and Protected Areas Branch-specific intersects and impacts:

Intersect Point	Intersect	Impact
Identify area for protection	Display registered interests	<b>Comprehensive Right/Interest Information Available</b> ILRR will be made available to MSRM providing a wide range of interest information and allowing the ministry to make better-informed decisions when identifying potential area for protection.
Determine referral agencies	Display agencies for referral	<b>Support for Referral Process</b> MSRM will be able to use the ILRR to assist them in identifying agencies that will need to be included in the referral process. This will be done by running a status report for the protected area location to identify agencies who have interests that intersect with the area.
Review request & URL	Display request/mapping information	<b>Support for Referral Process</b> WLAP may be able to use a reference to an identifier in the ILRR (possibly with associated location information) as part of assembling any information required by MRSM. This may reduce the amount of effort required to prepare Referral Packages.
Evaluate all input	Display registered interests	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for MRSM to re-reference the status of a request location in ILRR as part of the final evaluation.
Receive and file completed documents	Record legal interest	<b>System Integration</b> An interface between those systems that record Protected Areas (Tantalis/LRDW) and the ILRR will be required to facilitate the transfer of information to the ILRR.
Maintain protected area designation	Update legal interest	<b>System Integration</b> An interface between those systems that record Protected Areas (Tantalis/LRDW) and the ILRR will be required to facilitate the transfer of information to the ILRR.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> Parks and Protected Areas Branch will be able to use the ILRR query and reporting functions to support planning processes.

## A.15.6 Parks and Protected Areas Branch Data Quality Issues

### A.15.6.1 Data Quality Issues, Priorities and Strategies

The data quality issues survey produced the following results for Protected Areas data sets. The issues are sorted based on their expected impact on the success of ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	Protected Areas	Conservation Lands	2.25	Data for Conservation Lands are currently stored in Tantalus, but the quality of this data set is not well understood by Protected Areas Branch staff. This data area should be examined in more detail to determine its suitability to support ILRR.
2	Protected Areas	Inaccurate Protected Area / Park Boundary descriptions	2.25	Overall, there were only minor concerns expressed in the Data Assessment document regarding Protected Areas data; however, Protected Areas Branch staff challenged this assumption during the stakeholder interview process. A detailed data questionnaire that has been distributed to ILRR data custodians and consumers should provide a better understanding of this data issue.
3	Protected Areas	Park Use Permits (that have interest in the land for a long term).	1.71	A detailed data questionnaire that has been distributed to ILRR data custodians and consumers should provide a better understanding of the status of this data issue.

### **A.15.6.2 Business Process Changes for Data Quality Improvement**

Much of the data maintenance function for Protected Areas Branch is handled by MRSM, therefore, significant changes to Protected Areas Branch business processes is not anticipated.

### **A.15.7 Transition Complexity Assessment for Parks and Protected Areas Branch**

Based on the information available, the following is a preliminary assessment of the Parks and Protected Areas Branch's Transition Complexity Rating.

<b>Transition Area</b>	<b>Level of Anticipated Complexity</b>	<b>Comments</b>
Business Processes	Low	<ul style="list-style-type: none"> <li>▪ Existing processes appear to support ILRR well</li> <li>▪ Outcome of Permit process review should be considered</li> </ul>
Organization	Low	<ul style="list-style-type: none"> <li>▪ No significant issues noted</li> </ul>
Technology Environment	Low	<ul style="list-style-type: none"> <li>▪ Existing technical environment should support ILRR requirements</li> <li>▪ Outcome of Permit database review should be considered</li> </ul>
Data Quality	Moderate	<ul style="list-style-type: none"> <li>▪ Additional investigation required to determine status of conservation areas</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Low</b>	

## **A.16 Oil and Gas Commission**

### **A.16.1 OGC Overview**

The Oil and Gas Commission is responsible for regulating oil and gas activity within the Province of British Columbia:

- Through fair, consistent, responsible, and transparent stakeholder engagement;
- For the benefit of British Columbians; and
- By balancing environmental, economic, and social outcomes.

In 1998, the British Columbia Provincial Government and the Canadian Association of Petroleum Producers (CAPP) working together developed a plan to increase production and stimulate investment in the oil and gas industry in British Columbia. One of the components of the plan, called Oil and Gas Development Strategy, was the creation of the Oil and Gas Commission (OGC), a crown corporation.

The purposes of the OGC, outlined in Section 3 of the *Oil and Gas Commission Act*, are briefly summarized as follows:

- **Regulate** the oil and gas activities and pipelines in British Columbia;
- **Provide** for effective and efficient processes for the review of requests related to oil and gas activities or pipelines, and to ensure that requests that are approved are in the public interest having regard to environmental, economic and social effects;
- **Encourage** the participation of First Nations and aboriginal peoples in processes affecting them;
- **Participate** in planning processes; and
- **Undertake** programs of education and communication in order to advance safe and efficient practices and the other purposes of the Commission.

### **A.16.2 OGC Managed Rights and Interests**

OGC currently manages the following rights and interests:

1. Petroleum Natural Gas Entry on Crown Land

OGC also has the ability to issue a variety of other interests on behalf of the Ministry of Forests and Land and Water BC.

### **A.16.3 OGC Interest Data Management Systems**

OGC currently uses the following systems to manage their interest processes:

- Tantalus
- IRIS

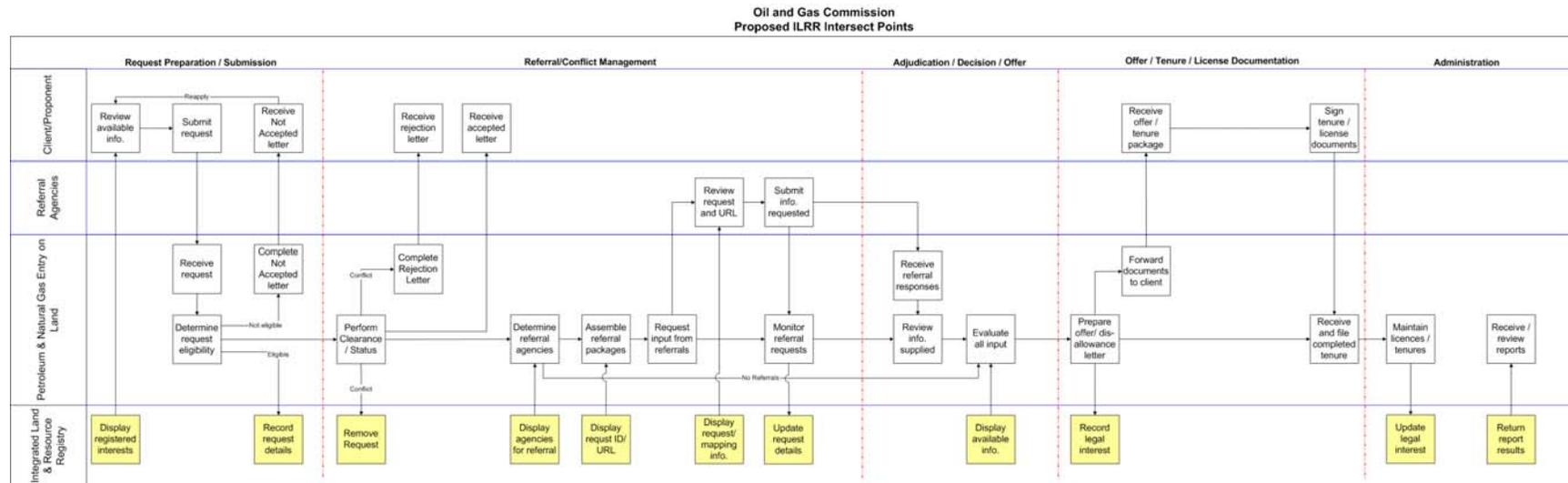
### **A.16.4 OGC Transaction Volumes**

OGC has not yet provided information on transaction volumes. Will be determined during The System Architecture phase.

## A.16.5 OGC High-Level Interest Management Process with ILRR Intersects

### A.16.5.1 OGC Process Model with ILRR Intersects

The following model describes the interest management processes followed by OGC that are of interest to the ILRR. ILRR intersect points are indicated in the bottom swim lane. The next section provides detailed descriptions of these intersects and their impacts on OGC.



### A.16.5.2 Intersects and Impacts

All impacts identified in Section 8.2 apply to OGC. The following represents the OGC-specific intersects and impacts:

Intersect Point	Intersect	Impact
Review available information	Display registered interests	<p><b>Comprehensive Right/Interest Information Available to Potential Applicants</b> The ILRR will be made available to Proponents prior to preparation of a request. Providing access to ILRR will allow the proponent to review a wider range of interest information. This additional information will allow the proponent to make better-informed decisions when preparing request and reduce the number of requests where an obvious conflicting right/interest exists.</p>
Determine request eligibility	Record request details	<p><b>Faster Initial Stating</b> OGC may reference ILRR for preliminary stating. A preliminary check of the ILRR for a request may identify existing conflicting rights/interests that would prevent OGC from approving the request. This would allow OGC to issue a definitive “rejection” earlier in their process.</p> <p><b>System Integration</b> An interface will be required between IRIS and ILRR to facilitate the transfer of requested interest information to the ILRR.</p>
Perform Clearance/Status	Remove Request Information	<p><b>System Integration</b> An interface will be required between IRIS and ILRR to facilitate the deletion of requested interest information to the ILRR if a request is withdrawn or rejected.</p>
Determine referral agencies to be involved	Display agencies for referral	<p><b>Support for Referral Process</b> OGC may be able to ILRR to determine parties who should be included in the Referral Process. This may reduce the amount of effort required to prepare Referral Packages.</p>
Assemble referral packages	Display request ID/ URL	<p><b>Support for Referral Process</b> OGC may be able to use a reference to a request identifier in the ILRR (possibly with associated location information) as part of assembling Referral Packages. This may reduce the amount of effort required to prepare Referral Packages.</p>
Review request and URL	Display request and/or mapping information	<p><b>Support for Referral Process</b> Referral Agencies may be able to directly reference the request in ILRR based on the request identifier when reviewing a Referral Package from OGC.</p>

Intersect Point	Intersect	Impact
Monitor referral responses	Update request details	<b>System Integration</b> An interface will be required between IRIS and ILRR to facilitate the update of requested interest information to the ILRR if a request amended.
Evaluate all input	Display available information	<b>Enhanced Ability to “Re-Confirm” Status</b> It may be desirable for OGC to re-reference the status of a request location in ILRR as part of the final evaluation of a request
Prepare offer/ intent/disallowance letter	Record legal interest	<b>System Integration</b> An interface will be required between Tantalus and ILRR to facilitate the update of requested interest to “active” status when the interest is granted. Note: OGC uses IRIS to manage applications, but the interest is recorded in Tantalus. This will add complexity to the update of the interest record as it moves from “request” to “active” status.
Maintain licenses/tenures	Update legal interest	<b>System Integration</b> An interface will be required between Tantalus and ILRR to facilitate the update of interest information in ILRR.
Receive/review reports	Return report results	<b>Enhanced Information Availability for Planning</b> OCG will be able to use the ILRR query and reporting functions to support planning processes.

## A.16.6 OGC Data Quality Issues

### A.16.6.1 Data Quality Issues, Priorities and Strategies

Oil and Gas Commission (OGC) data were not specifically addressed in the “*Integrated Registry Project – Data Assessment*” document. Through consultation with OGC, the following data issues were identified as having potential impact to ILRR:

Data Issue #	Data Area	Data Quality Issue	Average	Clean Up – Priorities and Strategies
1	OGC	Ability of IRIS data schema to support posting Requests to ILRR	N/A	In general, the information in IRIS is kept up to date and is of sufficient accuracy to provide ILRR with a broad but effective representation of the location of a request.
2	OGC	Completeness and currency of Tantalus data for OGC granted rights.	N/A	Due to workload and other OGC priorities, the information in Tantalus for granted rights may not be sufficiently up to date to support the requirements of ILRR. OGC indicates that data entry to IRIS is a higher priority than entering granted rights into Tantalus. The number of requests being processed (and rights being granted) by OGC is expected to increase over the next few years. As a result, the number of backlogged Tantalus entries will likely increase as well unless changes are made to the existing approach.  Aside from the backlog in entering granted rights into Tantalus (currently estimated to be approximately 150 rights), the information currently in Tantalus is reported to be essentially complete and up to date for the purposes of supporting ILRR.
3	OGC	Potential conflict of IRIS request data and Tantalus rights data	N/A	Due to request data and rights data being maintained within independent systems, there is the potential for the IRIS and Tantalus systems to provide contradictory information to ILRR. For example, a request may still be represented in IRIS after it has been entered into Tantalus as a granted right. In keeping with the overall guiding principles of ILRR, this issue will not be detected or resolved by ILRR. If such a situation occurs, OGC will be responsible for identifying the problem and correcting the corresponding records in IRIS or Tantalus as required.

### A.16.6.2 Business Process Changes for Data Quality Improvement

Rights granted by OGC must be entered into Tantalus immediately after the right has been granted. The current backlog may introduce uncertainty in the results of ILRR queries with respect to OGC rights data. OGC indicates that entering this data into Tantalus is not currently a high priority for them.

In keeping with overall trends in rights granting agencies, the Oil and Gas Commission are currently reviewing their approach to submissions, and expect to have a digital submission process in place in the future. Once this transition has occurred, the location of requests should be more specifically indicated as part of the digital request submission requirements. The implementation of digital submissions may also decrease the amount of time required to maintain (or eliminate) the IRIS system, thereby making OGC resources more available to support timely maintenance of rights data in Tantalus.

### A.16.7 Transition Complexity Assessment for OGC

Based on the information available, the following is a preliminary assessment of OGC's Transition Complexity Rating.

Transition Area	Level of Anticipated Complexity	Comments
Business Processes	Moderate	<ul style="list-style-type: none"> <li>Backlog of data entry to Tantalus should be addressed</li> </ul>
Organization	Moderate	<ul style="list-style-type: none"> <li>Limited staff capacity to support ILRR transition</li> </ul>
Technology Environment	Moderate	<ul style="list-style-type: none"> <li>Multiple data environments to interface ILRR with (IRIS, Tantalus), however, these technical environments should support ILRR requirements</li> </ul>
Data Quality	Low	<ul style="list-style-type: none"> <li>Data reported to be complete and accurate once it has been entered</li> </ul>
<b>Overall Transition Complexity Rating</b>	<b>Moderate</b>	