Northwest Territories Protected Areas Strategy

Northwest Territories Protected Areas Strategy
Renewable Resource Assessment Guidelines

Disclaimer- These guidelines are intended as a planning tool for Candidate Area Working Groups. These guidelines will be reviewed and revised from time to time.

I. INTRODUCTION

The Northwest Territories Protected Areas Strategy (NWT-PAS) outlines a series of eight steps for the planning and establishment of protected areas in the NWT. The NWT - PAS planning process calls for a detailed evaluation of the area's ecological, cultural and economic values. The evaluation of economic values requires, amongst others, the assessment of the renewable resources in and around the candidate protected area. The renewable resource assessment, in combination with other assessments and studies (i.e., ecological, non- renewable resources, socio-economic and cultural) will enable the partners to make informed decisions with regards to protection and management planning.

This document outlines the principles, objectives and process for the assessment of renewable resources of candidate protected areas. The Renewable Resource Assessment (RRA) will be carried out in conjunction with, and complementary to, the assessments of non-renewable resources and ecological and cultural values for the NWT-PAS.

As stated in the NWT-PAS, the Protected Areas Strategy will conform to all land claim agreements, Aboriginal/inherent and treaty rights, self-government agreements and overlap agreements. In the event of unforeseen conflicts between this Strategy and such agreements, the latter take precedence over the Strategy.

The importance of the RRA process is reflected in the principles of the NWT-PAS (sections 2.1 (a) and 2.2 (k)): *"Northern residents know best which lands and waters are most critical to sustaining their land-based economies, values and cultures,"* and *"Recognize the potential contributions of renewable and non-renewable resource development to the economic and social well-being of northern residents. Wherever* *possible, protected areas proposals for core representative areas will give priority to areas of low commercial value."*

II. PURPOSE OF THE RENEWABLE RESOURCE ASSESSMENT (RRA) PROCESS

To assess the renewable resources of candidate protected areas in a timely and appropriate manner and to ensure that they are considered in the socio-economic assessment together with non-renewable resources, ecological, and cultural values in the definition, planning and implementation of protected areas established under the NWT-PAS.

III. OBJECTIVES OF THE RRA PROCESS

1. To provide an effective, timely and cost-efficient assessment of renewable resources, their economic values, and their uses in and around the candidate protected areas. The assessment of renewable resource use should include current and future potential use;
2. To provide insight and to improve the state of knowledge about the variety of renewable resources and their use in candidate protected areas;
3. To provide a coordinated and consistent process for government agencies, communities and other stakeholders to plan and implement renewable resource assessment activities for candidate protected areas; and
4. To provide information for the consideration of social and economic implications of renewable resources and their uses. This information will be used, along with the results of the other assessment studies, to assist in the evaluation of candidate protected areas.

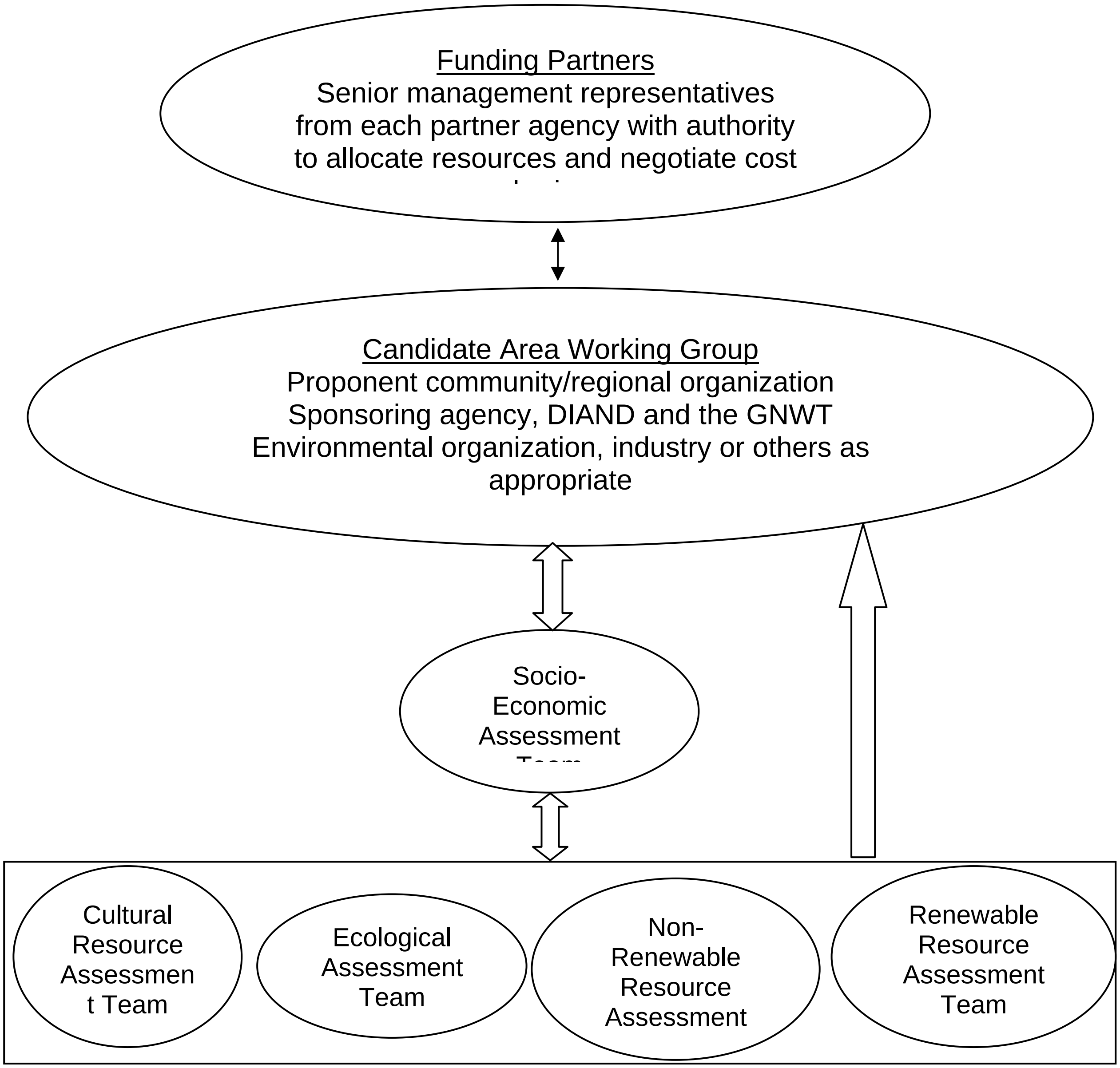
IV. PRINCIPLES OF THE RRA PROCESS

1. The RRA process should be consistent with the principles and goals of NWT-PAS;
2. Research and documentation of renewable resource use data should be based on quality surveys and studies, and results made available for review. Communication and goal setting between the renewable resource team and other assessment teams should take place;
3. Scientific knowledge as well as Traditional Knowledge (TK) should be included in the RRA. Local TK policies should be respected and community members involved in collecting the information;
4. The area around the candidate protected area should be considered along with the candidate protected area itself to allow for possible boundary adjustments and to capture the impact of the NWT - PAS on renewable resource use patterns in neighboring areas;
5. Research materials and information collected during the RRA should be collected and managed in a standard manner and be useful for long-term monitoring and other related management applications. Data management and presentation should be streamlined and, where possible, teams should strive to achieve comparability of evaluation techniques and spatial analysis;

6. During the entire process, emphasis should be placed on transparency, accountability and proper record keeping;
7. Results of the RRA should be reported to the communities involved on an ongoing and timely basis and in plain language. The presentation of results must be clear and transparent and should include the integration of data into Geographic Information System (GIS) (where possible);
8. Results of the RRA should also be considered in context with the other values and resources assessed (i.e., ecological, socio-economic, and cultural values and non-renewable resources);
9. Fieldwork, if required to fill data gaps, must not have an impact on the resource or resource use;
10. The cost and complexity of each phase of the RRA, and the extent of work required, should be determined by the Candidate Area Working Group and the Funding Partners on a case-by-case basis; and
11. The Candidate Area Working Group should determine whether the RRA provides an adequate level of knowledge (scientific knowledge and TK) that is required for an evaluation of the area.

V. FRAMEWORK FOR THE RRA

The framework diagram on the following page describes how the RRA fits within the overall framework of assessments that are carried out through the NWT-PAS planning process.



The role of the RRA within the described framework is to collect and document information on renewable resources and their use in and around the candidate protected area. The RRA is closely linked to the ecological and the socio-economic assessments. Valuable information on renewable resources of the candidate protected area might be gained from the ecological assessment and, therefore, the RRA should be carried out parallel to the ecological assessment or after it has been completed. The socio-economic assessment team and the RRA team should also be communicating on a regular basis to ensure that no important aspects are left out. The RRA must be completed so that the results are available for use in the socio-economic assessment.

The role of the Funding Partners is to approve the work plans and budgets for the different assessments and to allocate funds and resources accordingly.

The Candidate Area Working Group develops the overall work plan for the assessments, and monitors and reviews progress on the assessments.

Once results are available from the various assessments, the Candidate Area Working Group coordinates consultation and reporting to communities, regional organizations, land-claim bodies, the public, industry, environmental organizations and Funding Partners.

VI. RRA TEAM TERMS OF REFERENCE

1. Reports to Candidate Area Working Group;
2. Develops specific work plan and budget, and reviews technical aspects of the RRA work;
3. Compiles and reviews available information on renewable resources and their use in the area and provides a preliminary assessment to identify data gaps;
4. Determines the role that TK should play in the RRA process;
5. Develops a specific work plan and budget for additional phases, where necessary, for review by the Candidate Working Group;
6. Conducts technical components of the RRA work;
7. Writes a final report for peer and public review with the approval of the Working Group; and
8. Communicates results of the RRA in simple terms directly to public meetings and to the Candidate Area Working Group.

VII. OUTLINE OF THE RRA PROCESS: FOUR PHASES

The RRA team develops a specific work plan and budget for the work in the identified candidate protected area and outlines the phases of the process. The Candidate Area Working Group reviews this work plan and budget and recommends a budget allocation to the Funding Partners group. The Funding Partners negotiate the cost sharing arrangements for the assessments involved in the NWT - PAS planning process. Funds may also come from other sources.

RRA Phase 1: Collect and Review Existing Information on Renewable Resource Components and their Use

1. Define an initial study area that considers renewable resources in the candidate protected area that are used by people either in the area or in neighboring areas. Where possible, also include areas / resources that could potentially be used.
2. Determine areas and patterns of renewable resource use in and, where possible and appropriate, around the candidate area (see Appendix I, Table 1 for examples of renewable resource uses).
3. Collect or obtain available information for renewable resources such as:
    - Wildlife
    - Fish
    - Trees
    - Wild Landscapes
    - Plants
    - Water and Wind

Carving rocks should also be included. While not technically renewable, the patterns of use of carving rocks most closely match those of other renewable resources in this study.

Characteristics of the information should be reported, i.e., it should be recorded whether collected data are mapped, described, digital data, meta data publications, spoken word or narrative descriptions. Source or origin of the information should be reported and, if possible, contact information provided.

RRA Phase 2: Data Assessment, Evaluation and Identification of Gaps (see also Appendix I, Table 2)

1. Organization, assessment (including potential for GIS analysis) and interpretation of the collected data;
2. Comparisons between, within and outside candidate area RRA data;
3. Evaluation of RRA data: value summaries (determine how to rank values), highlight overlaps between categories in the candidate protected area;
4. Determine completeness of data on renewable resource use in the candidate area and, where possible, the surrounding area;
5. Review of RRA results of Phases 1 and 2 by Candidate Area Working Group; and
6. Evaluation of level of scientific and TK information provided in the RRA by the Working Group with respect to need for further study.

The RRA team will review and document the information collected during Phases 1 and 2 and report to the Candidate Area Working Group along with recommendations for the scope and budget for the following phases and the necessity to collect further information. Results of Phases 1 and 2 should be also presented to the community in plain language for feedback and input.

The Candidate Area Working Group makes a recommendation to the funding partners on whether to proceed to Phase 3 or to move directly to Phase 4.

RRA Phase 3 (if required): Fill in the Gaps in Renewable Resource Information for the Candidate Area (see Appendix I, Table 3)

1. Use of imagery mapping and air photos to fill in data gaps;
2. Identify potential sources of additional data in consultation with Candidate Area Working Group, other assessment teams (i.e., ecological assessment team) and community;
3. Collect new data (i.e. collection of follow-up information, interviews to obtain scientific knowledge or TK studies, field work);
4. Evaluate Phase 3 data and include results in RRA document; and
5. Initiate review and evaluation of completeness of data and provision of adequate level of scientific and traditional knowledge information by Candidate Area Working Group.

RRA Phase 4: Reporting

1. Write-up and publication of Phases 1 to 3. The draft report should be peer-reviewed by members of the Working Group and participating Government agencies;
2. After review of the results of the RRA, the Candidate Area Working Group should develop the reporting and consultation approach with the communities, regional organizations, land claim bodies, industry, other environmental organizations, and the public;
3. Release of RRA results as part of the overall assessment process as a NWT PAS document; and
4. Consultations and workshops will be carried out to discuss the RRA with the communities, regional organizations and landclaim bodies, other environmental organizations, industry, Government and the public.

APPENDIX I

Table 1. Existing and potential renewable resources uses in candidate areas in the NWT and possible information sources needed for Phase 1.

Use and Sample Renewable Resources	Type of Information	Possible Source
Food/Shelter/Medicine (Subsistence) - Wildlife - Fish - Plants - Trees (construction materials, fuel, and food – e.g. birch syrup)	*Wildlife* – - Species accounts, - Impact Assessment documents, - Wildlife studies, e.g., muskox, caribou, polar and grizzly bear, Dall's sheep, moose, mountain goat, bison, wolf, fox, lynx, cougar, beaver, hare, small mammal, passerine, raptor and waterfowl studies, - General Status Ranks of Wild Species in the NWT, and - Harvest levels, and - Land Use Plans. Policy documents: - Northwest Territories Wildlife Act, - NWT hunting and trapping regulations. *Fish* – - Fishing survey information, - Fisheries studies, and - Fish habitat studies. Policy documents: - Fishing regulations *Plants* – - TK in the different regions, and - Information on vegetation cover.	*Wildlife* – - Government of the Northwest Territories (GNWT, ENR*), - Yukon Territorial Government (YTG), - Government of Nunavut (GN), - Canadian Wildlife Service (CWS), - Ducks Unlimited (DU), - Information from local outfitters about programs, - Tourism outfitters, lodges and camps – point locations (ENR), - Inuvialuit Community Conservation Plans, - Regional harvest survey information (ENR and regional Wildlife or Renewable Resource Boards), - Results of ecological assessment for candidate area, and - Regional land use planning committees and boards. *Fish* – - Department of Fisheries and Oceans (DFO), - Inivialuit Community Conservation Plans, - Regional wildlife and renewable resource boards, and - Results of ecological assessment for candidate area. *Plants* – - Land claim bodies, - PWNHC (i.e., for Sahtu Dene), - GSCI (i.e., for Gwich'in), - Forest Management Landsat 5 and 7 based vegetation classification (ENR – Forest Management), - DU Landsat 7 vegetation classification, - West Kitikmeot Slave Study (WKSS) vegetation classification, and - Results of ecological assessment of candidate area.

	Trees – - Fuel timber harvesting plans, - Information on past harvesting, and - Information on access to area.	*Trees* – - Forest Management Landsat 5 and 7 based vegetation classification (ENR – Forest Management), - DU Landsat 7 vegetation classification, - Canadian Forest Inventory (CFI) data, - Forest Fire History (ENR – Forest Management), and - Forest Inventory Plot and Blocks (ENR – Forest Management. -
Commercial Sale - Wildlife - Fish - Trees	*Wildlife* – as described above *Fish* – as described above *Trees* – as described above	*Wildlife* – as described above *Fish* – as described above *Trees* – as described above AND Commercial timber harvesting licenses/plans.
Tourism/Recreation - Wild Landscapes - Wildlife (guided outfitting, wildlife viewing, etc.) - Fish (recreational or sport fishing)	*Wild Landscapes* – - Recreation use pattern data, and - Visitor statistics. *Wildlife* – as described above *Fish* – as describe above AND Sport fishing guides.	*Wild Landscapes* – - Tourism and Parks, ITI**, GNWT, - Regional Land Use Planning Boards (Land Use Plans), - Regional/local economic development offices, - Regional/local guiding or outfitting organizations - Municipal Governments (Recreation Department), and - Parks Canada. *Wildlife* – as described above *Fish* – as described above AND Wildlife Management Division (ENR, GNWT)
Arts and Crafts - Wildlife (hides, antlers, hooves, etc.) - Trees (birch bark, etc.) - Plants (dyes, etc.)	- Traditional knowledge information on past and current activities, and - Art forms practiced in the area. *Wildlife* – as described above *Trees* – as described above *Plants* – as described above	- Land claim bodies, - Crafts documentation, - Aurora College, - GNWT, - Prince of Whales Northern Heritage Centre (PWNHC)(i.e., for Sahtu Dene), - Arts and crafts retailers, - Regional/local economic development offices, and - Gwich'in Social and Cultural Institute (GSCI) (i.e., for Gwich'in). *Wildlife* – as described above *Trees* – as described above *Plants* – as described above

Power Generation - Water (hydro electric) - Wind	- Information on existing and planned facilities.	- GNWT (ENR & ITI), - Arctic Energy Alliance, - Utility companies, and - Local/community governments and agencies

* ENR – Environment and Natural Resources
** ITI – Industry, Tourism and Investment

Table 2: Tasks, possible methods and description of some steps of Phase 2.

Task	Possible Methods	Description of steps
Data - organization - assessment - interpretation	**Assessment and interpretation:** 1) Spatial analysis of resources and resource use (i.e., land use mapping) in and outside area. 2) Statistics of resource use. 3) Written description of resources and resource use.	1) Combine existing knowledge of resource use with GIS to produce land use maps. 2) Compile data from surveys and other information sources in data base and use descriptive statistical analysis (i.e., type of resource, number of local people using resource, frequency of use, method of use, etc.). 3) Detailed description of resource use in the area. Summarize all information gathered from TK studies, scientific studies and other information sources.
Comparison of data - within area - outside area	1) Spatial analysis of resources and resource use (i.e., land use mapping). 2) Statistics of resource use. 3) Written description of resources and resource use.	1) Use land use maps to compare resource and resource use within and outside candidate area. 2) Analyze resource use in and around candidate area statistically. 3) Compare resources and their use in and outside the candidate area in written text.

Evaluation of data	Rank resources and their use according to their importance for local people. 1) Use a number system (e.g., 1 for low, 2 for medium, 3 for high). 2) Use a narrative system (e.g., low, medium, high). If information on importance is not available, a survey should be initialized in Step 3.	Ranking the resources and their use should be done with a system that can describe several levels of use, e.g., not occurring or used, irregularly occurring or used, frequently occurring or used, very commonly occurring or used. Local importance of resources and their use and potential overlap can be best described by: 1) Mapping resources and resource use and include the ranking scores (color coded or with actual ranks). 2) Detailed description of resource use evaluation with accompanying tables that show the ranking scores.
Completeness of data	Determine whether: - there are spatial gaps in coverage of candidate area, - past, current and potential future resource uses are recorded, - all potential information sources about resources and their use have been consulted, and - all resources used have been evaluated.	Completeness of data can be best described by: 1) Mapping results (where possible). 2) Consultation with local people (e.g., was everything covered?). 3) Evaluation of literature review and reference list.

Table 3: Tasks, possible methods and description of some steps of Phase 3 (if necessary)

Task	Possible Method	Description of Steps
Fill in data gaps	Use imagery mapping and air photos of area.	Overlay or compare results from land use mapping with available imagery and air photos to fill in potential spatial gaps.
Identify more data sources	Consultation with: 1) Candidate Area Working Group. 2) Other assessment teams (i.e., ecological assessment team). 3) Knowledgeable local people from communities.	Through consultation, review and interviews identify potential data / information sources that were left out in Phase 1. Compare results with existing data / information sources that were used in Phase 1 and add new information to RRA.

Collect new data	Collection of further information on resources and their use in candidate area. Collect information on importance of resource use.	Several options to collect new data: 1) Design and carry out interviews to obtain additional scientific knowledge. 2) Design and carry out interviews to obtain additional TK. 3) Design and carry out fieldwork to obtain additional knowledge, especially for the assessment of: - potential future resource use, - recent changes in resources that might affect the use pattern, and - potential impact of the NWT – PAS on resource use.