

10.0 CUMULATIVE EFFECTS

10.1 Definition of Cumulative Effects

As noted in Section 1.5, the Rainy River Project (RRP) as currently planned is required to complete a Federal Standard EA pursuant to the *Canadian Environmental Assessment Act, 2012 (CEAA, 2012)*. The Canadian Environmental Assessment (CEA) Agency Guide for Addressing Cumulative Environmental Effects (CEA Agency 1999) defines cumulative environmental effects as:

The effect on the environment which results from effects of a project when combined with those of other past, existing and imminent projects and activities.

The guide further states that:

To a limited extent, federal and other environmental assessments already address cumulative environmental effects. For example, most examine the baseline environmental conditions, which include the cumulative environmental effects of past and existing projects and activities. However, consideration should also be given to the cumulative environmental effects resulting from the interactions among the environmental effects of the proposed project with those of future projects and activities.

The Operational Policy Statement, Assessing Cumulative Environmental Effects under the *Canadian Environmental Assessment Act, 2012 (CEA Agency 2013)* states:

CEAA 2012 require that each EA of a designated project take into account any cumulative environmental effects that are likely to result from the designated project in combination with the environmental effects of other physical activities that have been or will be carried out.

and further that:

A cumulative environmental effects assessment of a designated project must include future physical activities that are certain and should generally include physical activities that are reasonably foreseeable.

The Class Environmental Assessment (EA) for Ministry of Natural Resources (MNR) Resource Stewardship and Facility Development Projects (MNR 2003) states, with respect to cumulative effects, that:

Consideration should be given to whether the environment affected by the project is undergoing change or is expected to undergo change as a result of other past, present, and future projects.

The cumulative effects analysis presented is therefore restricted to the analysis of cumulative effects on the existing environmental baseline related to identified projects and activities that will be carried out; and to those projects of significance within the broader regional context, which may overlap the undertaking in regards to type of effect, time and space. Projects and activities at the planning stage for which a decision to proceed has not as yet been made are generally excluded.

In the evaluation of alternatives to the RRP and alternative methods of carrying out the RRP, past and current projects and activities were taken into account in the evaluation of project-specific effects relative to the existing baseline condition. This included consideration of forestry operations, transportation uses and potential disturbances to wildlife.

Similarly, in the evaluation of environmental effects of the RRP, past and current projects and activities were taken into account in the evaluation of project-specific effects relative to the existing baseline conditions; also including consideration of forestry operations, transportation uses and potential disturbances to wildlife.

There are a number of other potentially foreseeable types of activities which could make a contribution to cumulative effects at some point in the future. While it is not possible to assess the cumulative effects of such activities since they are as yet hypothetical and not yet defined, it is possible to provide a general overview of their potential interactive effects if projects related to these activities were to proceed. It is also important to stress here that if such future projects were to be defined, then it would be the responsibility of the proponents of any such projects to take the effects of the RRP into consideration in their assessment of their particular project, in accordance with applicable EA requirements.

Input was sought from stakeholders and Aboriginal groups into the cumulative effects analyses through consultation on the draft EA Report (Versions 1 and 2). The cumulative effects analysis may extend to projects located beyond the physical boundaries of the defined study areas (Section 5.1), if there is a potential for the effects to overlap with the RRP.

10.2 Identified Planned Projects

10.2.1 Major Projects Inventory

The Province of Ontario does not maintain an inventory of major private and public sector projects. The Human Resources and Skills Development Canada does however, publish a Labour Market Monitor on a monthly basis which provides news of major shifts in employment by private businesses. This section lists some of the projects which either are in the human

environment regional study area (HRSA), have effects on the HRSA, or indicate regional trends which relate to leading HRSA industries.

10.2.2 Mining and Exploration

There are multiple companies actively exploring gold claims in the Rainy River District. These include Bayfield Ventures who hold claims adjoining those of RRR, Coventry Resources Ltd. and Rheingold Exploration Corporation. None have made public notices regarding proceeding beyond exploration into development.

There are no proposed mining developments in the human environment local study area (HLSA) or HRSA that are applicable to the cumulative effects assessment.

For completeness, as these projects could affect the availability of resources and in particular manpower for the construction and operation phases, a summary has been provided of the following major mining developments in the region (but outside the HRSA):

- Hammond Reef Gold Project, Osisko Mining Corporation: 187 km east from RRP site; Open pit gold mine; Feasibility Study and EA in preparation for the Provincial and Federal EA process (Osisko 2013).
- Josephine Cone Mine, Bending Lake Iron Ore Group Limited: 145 km northeast of the RRP site; notice of commencement published on February 26, 2012 to initiate the Provincial Individual EA process; revised project description for Federal EA process submitted February 1, 2012 (Bending Lake Iron Group 2013).
- Phoenix Gold Project, Rubicon Minerals Corporation: 263 km north from RRP site; certificates of approval for production received; tentative plans for production in 2014 (Rubicon Minerals 2013).
- Cochenour Project, Goldcorp Inc.: 258 north from RRP site; production anticipated in the first half of 2015 (Goldcorp 2013).
- Madsen Gold Project, Claude Resources Inc.: 266 km north from RRP site; (Claude Resources 2012).
- Open pit iron mine, concentrating and pelletizing plant; Essar Steel; 175 km southeast from RRP site; proposed iron mine and high-grade iron pellet production facility (Essar Global Limited 2012); the mill would employ an estimated 350 people (Minnesota Post 2012); while international boundaries can pose significant restrictions on labour mobility and the distance is greater than any noticeable socio-economic effects, the existence of

this project may be influential for mining service firms interested in establishing themselves in the area.

10.2.3 Forestry

The HLSA is within the Crossroute Forest Management Unit with the applicable Sustainable Forest Licence held by Resolute. The current Forest Management Plan (2007 to 2017) shows no planned harvesting in the area overlapping the HLSA (MNR 2006).

10.2.4 Transportation

Several announcements were made regarding various road maintenance works on northwestern Ontario highways, which altogether are employing several hundred construction workers. Table 10-1 provides a listing of those projects to be constructed from 2013 to 2016 in the HRSA. These are relatively small projects or expected short duration and are not expected to contribute to cumulative effects.

10.2.5 Municipalities

HRSA municipalities have applied for support from the Federal government through the Provincial - Territorial Base Fund to support local infrastructure development for the coming fiscal year. The applications include such items as building or local road upgrades, which are important to the local municipalities. The list of submissions which have not necessarily been funded and therefore are not projects for the purposes of cumulative effects assessment has been reviewed, and none are of a scale or location which could result in a cumulative effect with the RRP.

10.2.6 Other Projects

The only other project which could be considered for inclusion within a RRP cumulative effects assessment would be the planned Dave Rampel Solar Park, located approximately 1.5 km east of the hamlet of Pinewood, within the lower portion of the Pinewood River watershed (Refergy Canada 2012). The Dave Rampel Solar Park is expected to occupy a total footprint of approximately 30 ha, contained within a lease area of 65 ha. The entire lease area consists of active agricultural fields, bordered by active agricultural fields, forest and scrub bush. There would be no tree or forest clearing associated with the solar park proposal. Therefore, given the small scale of the solar park proposal and its remote location from the RRP, and the fact that the solar park proposal involves the development of active agricultural fields, there is no reasonable potential for the Dave Rampel Solar Park to have an overlapping cumulative effect on Valued Ecosystem Components (VECs) defined for the RRP.

In addition it is worth note that evolving tourism efforts include a proposal to designate a historical water route through northwestern Ontario. Several groups are seeking a Canadian

Heritage River designation in place between Pigeon River, La Lac Croix and extending into Lake of the Woods. This designation would include both Rainy Lake and Lake of the Woods. Other initiatives include the Heart of the Continent Partnership which promotes the economic, cultural and natural health of the lakes, forests and communities on the Minnesota / Ontario border and the Path of the Paddle, an extensive canoe route system throughout Northwestern Ontario.

10.3 Projects Identified for the Purposes of Cumulative Effects Assessment

With the exception of the proposed Dave Rampel Solar Park, located within the lower Pinewood River watershed, there are no known planned projects in the natural environment local or regional study areas (NLSA or NRSA) apart from the RRP itself. Within the NRSA and HRSA, there are no known projects of significance that are anticipated to have a cumulative effect with the RRP.

Forestry operations have been commonplace in the local area within the recent past and mineral exploration is continuing, as described above. Future projects linked to these activities are therefore reasonably possible, but are not reasonably foreseeable, as defined in the Operational Policy Statement for Assessing Cumulative Environmental Effects under the *CEAA, 2012*, where reasonably foreseeable is defined as a physical activity that is expected to proceed.

Future forestry operations would require applicable permits and approvals, and therefore would be reviewed by government ministries who would take into consideration, the then existence of the RRP.

The potential for additional mineral developments associated with existing (or future) mineral claims is dependent on whether or not these mineralized zones support sufficient resources to warrant advanced exploration and commercial production, and currently remains to be determined. When and if such resources are identified, separate EA studies would be required to determine the likely environmental effects, including cumulative effects of additional mining operations.

Currently, these exploration properties are not regarded as certain or reasonably foreseeable projects.

10.4 Cumulative Effects Analysis

Based on the knowledge of RRR and AMEC including information gained from consultation to date, there are no certain or reasonably foreseeable new projects that are planned for the local area that would be likely to impact VECs that are expected to be potentially affected by the RRP. Effects of past and existing activities and projects, inclusive of agriculture, forestry and

transportation infrastructure, etc., are already included in the baseline condition, and were considered in Section 7 as part of the RRP effects analysis on the existing environment.

With regard to potential economic and social effects, it is reasonably possible that some of the larger proposed mining projects defined in Section 10.2, and to a lesser extent the Dave Rampel Solar Park (Section 10.2.6) could have effects that would be additive to those of the RRP in terms of regional employment and business opportunities. The effects would be positive and would be difficult to quantify at this stage, until construction contracts are let and staff are hired. Overlapping effects from these projects with RRP effects on housing and accommodations, public utilities, community and social services, and local traffic within the HLSA and HRSA would not be expected.

There are consequently no known proposed or planned projects that would be expected to have a cumulative adverse effect on VECs and valued socio-economic components (VSECs) defined for the RRP. A cumulative effects assessment beyond that described herein is therefore not warranted.

Table 10-1: MTO Rehabilitation Projects for 2014 to 2016 in the HRSA

Location	Proposed Work
Medcalf Lake Narrows Bridge, 85 km north of Highway 516	Bridge rehabilitation
Elbow Creek Bridge, north of Highway 642, Silver Dollar	Bridge rehabilitation
Albany River Overflow (Cedar Rapids) Bridge, south of Pickle Lake	Bridge rehabilitation
Sturgeon River Bridge, 32 km south of Highway 516	Bridge rehabilitation
Little Grassy River Bridge, west of Highway 619, Bergland	Bridge rehabilitation
Slate River Bridge, south of Thunder Bay	Bridge rehabilitation
Hastie and Munro River Bridges, north of Highway 11, Devlin	Bridge rehabilitation
Off Lake Bridge, north of Highway 11, Emo	Bridge rehabilitation
Pinewood River Bridge, north of Highway 11, Stratton	Bridge rehabilitation
Little Grassy River Bridge, north of Highway 600, Bergland	Bridge rehabilitation
Big Trout Creek Culvert, south of Highway 11/17, Red Rock	Culvert replacement
Highway 17A northerly	Resurfacing
Vermillion Lake Narrows Bridge, west of Highway 72, Hudson	Bridge rehabilitation

Source: MTO (2012b)

