

# Rio Tinto Alcan

**Industry:** Metals and mining

**Duration:** September 2008 to end 2009 for the first phase (inventory and first action plan)

**Location:** The standard E9 is applicable in RTA managed facilities worldwide (19 in Canada)

**Case study type:** Management and policy

## Land use stewardship standard implementation in facilities worldwide



Rio Tinto Alcan (RTA) is one of five product groups operated by Rio Tinto, a leading international mining group. It is a global supplier of quality bauxite, alumina and aluminum and operates 42 sites over the world (bauxite mines, smelter-grade alumina refineries, specialty alumina plants, smelters, power facilities), employing 24,000 people in 27 countries. RTA owns, operates or has interests in 6 bauxite mines and deposits in 4 countries, 10 alumina refineries in 5 countries, including 1 in Canada, 23 smelters in 10 countries, including 7 in Canada and 12 power stations in 4 countries. RTA operates 19 sites in Canada (including 7 hydro power plants and 4 supporting facilities) and employs 8,300 people in Canada.

### Rio Tinto Alcan's perspective on biodiversity

#### Impacts on biodiversity

Rio Tinto Alcan's (RTA's) operations and activities can impact both terrestrial and aquatic habitats and the species – flora and fauna – dependent on them. Impacts are due to direct site footprints, including supply corridors, as well as air and water emissions, and waste management from mines, power stations, smelters and refineries.

#### Rio Tinto Alcan's biodiversity management policy

Rio Tinto's (RT) goal is to have a net positive impact on biodiversity by minimising the impacts of its business operations and contributing to biodiversity conservation to ensure a region ultimately benefits as a result of its operations. Through its Biodiversity strategy updated in 2008<sup>1</sup>, Rio Tinto is committed to:

- the identification of biodiversity values impacted by its activities;
- the prevention, minimisation, and mitigation of biodiversity risks throughout the business cycle;
- responsible stewardship of the land we manage;
- the identification and pursuit of biodiversity conservation opportunities;
- the involvement of communities and other organizations in the management of biodiversity issues.

Prior to the acquisition of Alcan by Rio Tinto, the company's Health, Safety and Environment (HSE) and Sustainability policies encouraged operation managers to develop biodiversity conservation initiatives and projects, including partnerships with local agencies and organizations as well as environmental non government organizations. Programs and projects that were developed and implemented between 2004 and 2007 include:

- Creation of parks adjacent Nerée and Poléon lakes on the Grande Baie site (Quebec). These facilities include trails and interpretative information on approximately 100 species of birds, mammals, amphibians and reptiles that can be observed on the site<sup>2</sup>.
- Through a partnership with a local environmental organization in Laterrière (Le Comité de l'environnement de Chicoutimi), Alcan was able to develop the plant property in a way that provides parkland and recreational benefits to employees and the community along the Moulin River at Parc Papawétish. The project included an extension of the bicycle path, shoreline maintenance and removal of undesirable plants, stabilization of the shoreline with rocks and vegetation, installation of signage describing the path along the river, various activities at nearby Lac Saint-Gelais to protect and promote biodiversity (frogs and grass snakes), and creation of an observation area to study beaver habitat<sup>3</sup>.
- Funding partner to the "Biodiversity Valley Project" in the Saguenay region of Quebec, a 111 km corridor along the Saguenay fjord between Tadoussac and Saint-Fulgence. Alcan works in cooperation with a Quebec wildlife organization, la *Fondation de la faune du Québec*, to enhance biodiversity along the Saguenay River shoreline. The project includes an interpretation website, the implementation of a guide network and the launching of a biodiversity map<sup>4</sup>.
- Implementation of phyto treatment of water effluent processes in Latterrière and Grande Baie (Quebec) facilities.

Rio Tinto's HSE management system includes the Land Use Stewardship Standard E9<sup>5</sup> adopted in 2005 and revised in 2008 as a major step in the application of Rio Tinto's strategy on biodiversity. It covers all land owned, leased or managed by Rio Tinto. It also applies to land that is not used directly for mining, processing or operational activities and includes specific requirements for operation managers to:

- develop and maintain a documented description of the land, including environmental and social conditions;
- develop land-use zones and management objectives;
- develop targets to drive improvements in land management;
- develop a Land Use Management Plan (LUMP).

The deployment of Standard E9 was identified as a priority standard to implement as part of the RTA integration process. RT management set the tone at the top by making it mandatory throughout its operations worldwide.

## Land use stewardship standard implementation in facilities worldwide

### Rationale

The objective of this initiative is to implement Phase 1 of the Land Use Stewardship Standard E9 developed by Rio Tinto for each of the RTA managed industrial facilities worldwide (19 in Canada), by end of 2009.

The deployment of this standard throughout RT and RTA facilities<sup>6</sup> enables a better understanding of biodiversity conservation and environmental issues on lands they own, lease or manage.

Besides positive impacts on Biodiversity knowledge and conservation, the implementation of consistent and responsible land management practices throughout the company also contributes to improve social acceptance of industrial activities, and in particular access to water rights and land access.

### Description

The aim of Standard E9 is to ensure the integrated management and sustainable development of lands that are owned, leased or managed by RTA in relation to:

- current zoning;
- maintaining biodiversity;



- development of elements of interest;
- interactions with adjoining uses (including the communities);
- rights and preservation of social values, traditions and natural and cultural heritage both on and around RTA's land.

During phase 1 of the program each site develops a Land Use Management Plan (LUMP) consisting of:

- an analysis of risks and opportunities;
- a management plan that will be updated every 5 years.

Each site also develops a Biodiversity context workbook that includes an inventory of areas with special significance, as well as sensitive, endangered and protected species within a 10 km radius of the site, to be updated on an annual basis.

Phase 2 of the program focuses on the implementation of the LUMP and the development of specific action plans by site, based on a self assessment of biodiversity issues reviewed by RT at corporate level.



Each LUMP provides a thorough description of the geological, physiological, hydrographical and climatic characteristics of the site. It also includes information on terrestrial and aquatic flora and fauna, fish habitat and species of special status. Protected or special-status areas, including heritage and archeological aspects, are also listed.

The approach requires the acquisition of data detailing natural resources and uses and constraints, as well as land tenure and concerns of interested parties. The information is gathered from federal, provincial and municipal governments as well as other organizations and agencies.

The LUMP identifies land use zoning such as industrial, agriculture, forestry, residential, commercial, tourism or conservation and includes satellite maps highlighting protected areas and potential development areas for industrial or other purposes.

A LUMP requires the gathering of specific knowledge of the land used by RTA (and occasionally by third parties) and includes an evaluation of the risks associated with the management of bauxite mines, refineries and smelters. All applicable information is included in the Risk Register established by the business unit in relation to its Environmental Management System.

The development of the LUMP on each RTA facility is coordinated at the corporate level, in cooperation with a consultant whose responsibility is to gather the information and to draft the LUMP report for each site.

Based on the information from the LUMP, site management conducts a risk assessment and drafts a management plan to address biodiversity conservation, protection of heritage sites and the rehabilitation of contaminated sites. This management plan, based on the consultant report, is to be completed by end of 2009.

Each plan describes the roles and responsibilities of employees, including the plant manager, ESH, security, fire superintendent, environmental coordinator and the communications officer in maintaining and protecting biodiversity.

### Stakeholders and roles

For the deployment of the first phase of the E9 standard, there is no specific partnership involved with external stakeholders. The implementation of individual site action plans may involve external partnerships with local communities and ENGOs and managed directly by operation managers.

As an example, Grande Baie, Quebec has developed a management plan that includes partnerships with local organizations to manage areas with development potential on RTA land, in particular for reforestation.

The project is being coordinated by an environmental manager at corporate level with the cooperation of on-site operation and environment managers. RTA has contracted a consultant with biodiversity expertise to carry out the inventory and assessment on a site by site basis.



## Communication

Some of the sites have implemented a committee involving representatives from local communities, local NGOs and unions. Information on the implementation of the LUMP and the site performances will be communicated to stakeholders on an ad hoc basis by site managers.

## Outcomes

### Benefits

#### Economic

RTA's approach to responsible management of resources will allow for best practices sharing and prioritization of initiatives in a consistent way now and into the future. This will allow for the early identification and resolution of potentially costly biodiversity issues. This is expected to provide a net long-term economic benefit. It also improves the decision making process thanks to a systematic identification of risk and opportunities based on a consistent method and background information acquired on the local biodiversity context,

#### Biodiversity

The implementation of the E9 standard has contributed to put up-front biodiversity conservation issues and interest on the operational management agenda. Specific biodiversity benefits related to habitat protection and species conservation on each site will occur during the phase II of the project.

## Lessons learned

The development and implementation of the Land Use E9 standard is taking place in a post acquisition integration context. Changes in structures and management practices, together with the current global financial situation, created implementation challenges and a focus on short term operational priorities. Distance from head office and cultural differences also needed to be recognized and addressed. In this context, plans for the deployment of E9 standard sometimes had to be adjusted to fit the local situation.

To ensure a smooth transition, increase ownership and ease the process for operation managers, the Rio Tinto Alcan HSE Corporate team has provided significant support which included:

- coordination of the methodological aspects with the consultant;
- funding for the development of the sites' LUMPs;
- global information sessions that involved HSE managers both in European and American operations.

### Changes in company's practices

The implementation of phase 1 corresponds to a Group policy. At the end of Phase 2, the program will allow for a reassessment of process, projects and increased positive impacts for biodiversity conservation.

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<sup>1</sup> [www.riotinto.com/documents/ReportsPublications/RTBiodiversitystrategyfinal.pdf](http://www.riotinto.com/documents/ReportsPublications/RTBiodiversitystrategyfinal.pdf)

<sup>2</sup> [www.publications.alcan.com/sustainability/2005/fr/pages/issue\\_4\\_community\\_ex\\_grandebaie.html](http://www.publications.alcan.com/sustainability/2005/fr/pages/issue_4_community_ex_grandebaie.html)

<sup>3</sup> [www.publications.alcan.com/sustainability/2007/en/pages/review\\_3\\_natural\\_casestudies\\_2.html](http://www.publications.alcan.com/sustainability/2007/en/pages/review_3_natural_casestudies_2.html)

<sup>4</sup> [www.routedufford.com/carte.html](http://www.routedufford.com/carte.html)

<sup>5</sup> [www.riotinto.com/documents/LandUseStewardship.pdf](http://www.riotinto.com/documents/LandUseStewardship.pdf)

<sup>6</sup> Standard E9 is applicable in sites where RTA has ownership, majority participation or management control