

# FY2018 Goal Performance Summary

The following table summarizes Avalon's performance in reaching its FY2018 goals.

FY2018	Status	Comments
<b>Health and Safety</b>		
Zero fatalities	Achieved	<p>Risk assessments and advanced planning help mitigate potential fatalities, harm and accidents.</p> <p>The emergency response plans for the Nechalacho and Separation Rapids projects were updated in advance of the exploration programs planned for FY2019. Avalon also prepared an emergency response plan for the Species at Risk Act (SARA) Phase 1 study at the East Kemptville site in FY2018.</p>
Zero harm	Achieved	See above.
Zero lost time accidents	Achieved	See above.
Zero medical aid accidents	Achieved	See the Message from the VP, Sustainability on <a href="#">page 10</a> .
Establish formal recycling area(s) for office waste	Achieved	<p>Avalon works independently and with its building's management group to properly recycle electronic waste and batteries from its Toronto office. In FY2018, Avalon's health, safety and environment committee installed new signage to communicate recycling procedures.</p> <p>Avalon joined a coffee pod recycling program in FY2017: a service which recycles used coffee pods through a specialized recycling stream. Coffee grounds are composted and plastics are made into plastic lumber to be used for decking, benches and playgrounds. In FY2018, Avalon's Toronto office diverted 66 pounds of waste from the landfill and six trees were planted on the Company's behalf.</p>
Identify and train health, safety and environment committee person to replace member who has relocated	Not achieved	Due to reduced number of staff members working from Avalon's Toronto head office location, it was decided by the current health, safety and environment committee members that the committee size was satisfactory.

## Environment and Permitting

<p>Complete the comparison of the spring and fall 2017 baseline data collection with the 2007 Separation Rapids Project Environmental and Social Impact Assessment (ESIA); determine if additional work is required in consultation with regulators and other interested stakeholders</p>	Ongoing	<p>In August 2018, Avalon obtained all the data required to finalize the assessment of the 1999/2007 baseline work at the Separation Rapids Project. The report was 95% complete at year end.</p> <p>In addition, Avalon completed the biological re-assessment of the newly proposed tailings management area (TMA) and fish were identified in all areas of the basin. Given that both basins are considered fish habitat, Avalon recommends a trade-off study to assess the most cost effective location for the TMA and the development of a fish habitat compensation plan.</p> <p>An update of the surface layout was completed to take into considerations the changes to the business model that further decrease potential for environmental impacts.</p>
<p>Complete initial packer testing and groundwater at Separation Rapids Project to provide baseline data for the ESIA</p>	Ongoing	<p>While groundwater sampling was completed in November 2017, issues with equipment prevented the completion of the packer test. Due to winter conditions and difficult access, the packer test and resampling of the ground water wells was completed subsequent to yearend.</p>
<p>Identify viable by-products from Separation Rapids lepidolite to decrease waste product and project environmental footprint; update the footprint for economic, environmental and engagement purposes (financing depending)</p>	Achieved	<p>In FY2018, the process was modified to incorporate lepidolite concentrate production, in addition to producing petalite and feldspar concentrates. This created a reduction in waste rock quantity, due to the processing of the lepidolite that was not considered in the previous Separation Rapids business model.</p> <p>Avalon also modified the site layout to recognize the process changes and associated reduction in waste storage required. Overall, significant reduction in the project's energy requirements and associated GHG generation were realized.</p>
<p>Complete additional leachate studies and initiate humidity cell studies for waste materials at Separation Rapids; advance or modify disposal strategies based on these results</p>	Achieved	<p>Avalon initiated seven humidity cell tests for environmental testwork in the summer of 2018; however, final results were not received as of yearend.</p> <p>With Avalon's updated project model, tailings wastes will be filtered and trucked to the tailings management facility (TMF), rather than using the standard pumping of tails. To the extent practical, water from precipitation on the TMF will be recycled back to the plant. This will result in a significantly-reduced quantity of water requiring discharge (compared to Avalon's 2016 project model), and will reduce the size of the TMF and lower the environmental risk.</p>
<p>Create waste rock lithochemistry block models for Separation Rapids and East Kemptville deposits that enable enhanced design of waste rock handling for mine planning (financing pending)</p>	Not achieved	<p>Due to multiple priorities and budget constraints, Avalon focused on other geological work during FY2018. This goal has been restated for FY2019.</p>

FY2018	Status	Comments
Identify the optimal permitting strategy and time lines in discussion with regulators for the East Kemptville Project	Achieved	See the Message from the VP, Sustainability on <a href="#">page 8</a> .
In the event that a one year permitting timeline for the East Kemptville Project is identified, complete a formal site closure plan suitable for the approval of a Mining Lease (or Special Lease) to meet a key requirements for transfer of the surface rights to Avalon	Ongoing	<p>In FY2018, Avalon re-assessed its East Kemptville closure strategy using the new proposed mine plan from the engineering firm MICON, and was integrating the strategy into the final closure/rehabilitation plan submission at yearend.</p> <p>In October 2017, Avalon met with the Executive Director of the Nova Scotia Natural Resources to discuss information regarding the Mining Lease application requirements. In the same month, Avalon met with the Environmental Assessment Department of Nova Scotia Environment (NSE), based on an environment program summary document. The meeting with NSE revolved around the permitting requirements. Due to the East Kemptville Project perceived as being a significant change to the existing permitted closure plan (and potentially in part due to a lack of assessment work), the department appeared to be leaning toward requiring a Project Registration (Environmental Assessment) rather than a transfer of the existing Industrial Approval. Discussions are ongoing, and a strategy to support the Avalon preference for the Industrial Approval transfer is well advanced. In the meantime, Avalon will complete time-sensitive benthic and SARA studies in November 2018 to avoid the risk of delay for either option.</p>
Assess the potential to work cooperatively with the NWT Government, Lutsel K'e Dene First Nations and others to develop an access road to the Nechalacho Project; should there be support for this road, assess the economic benefits to the Nechalacho Project	Achieved	<p>See the Message from the VP, Sustainability on <a href="#">page 9</a>.</p> <p>In March 2018, an application for NWT government funding to investigate the potential for an energy corridor and associated road was approved. Avalon collected and provided the required extensive documentation in support of this study. As of yearend, the investigative report had not been completed.</p>
Monitor proposed and actual regulatory changes in all jurisdictions in which Avalon operates and respond to changes material to Avalon either independently or through industry associations, and adapt applicable environmental strategies as appropriate	Achieved	<p>Avalon provided industry support and submitted comments directly on proposed legislation throughout FY2018. Some examples include:</p> <ul style="list-style-type: none"> <li>• a comprehensive critique of the Caribou Range Plan submitted to the NWT Department of Environment and Natural Resources;</li> <li>• concerns regarding transition, cost recovery and redundancy in several regulations presently under review, with recommendations, presented in a meeting with Minister McKenna (Federal Environment and Climate Change);</li> <li>• supporting the submissions of the NWT and Nunavut Chamber of Mines in response to the first proposal for carbon management in the NWT;</li> <li>• concerns regarding the Fisheries Act and Impact Assessment Act have been refocused to the regulations that are being developed to support these Acts in an effort to minimize impacts; and</li> <li>• participating in a multi-stakeholder committee, representing the exploration industry, to prepare a guidance document for climate change risk assessment.</li> </ul>

## People and Community

Develop protocols for ongoing engagement and Agreement negotiation for all financed projects	N/A	Avalon formalized its procedure for identifying impacted COI. While no projects were fully financed in FY2018, engagement continued at all active projects.
Maintain and, where possible, increase local community engagement, especially in Northwestern Ontario	Ongoing	<p>In FY2018, Avalon initiated discussions with Lakehead University (Thunder Bay, Ontario) regarding research on utilizing wild rice for Separation Rapids' site rehabilitation, in partnership with the Wabaseemoong Independent Nations (WIN). Additional discussions are planned with Manitoba University (Winnipeg, Manitoba). Avalon attended the one day Métis Collaborative Forum and offered to present an update on the Separation Rapids Project at next year's forum. Avalon also participated in general discussions with the Ochiichagwe' Babigo' Ining Ojibway Nation to introduce the project to the Chief and Council and maintains regular contact with the Consultation Coordinator.</p> <p>See Disclosure 102-44 on <a href="#">page 32</a> for more information.</p>
Maximize utilization of existing workforce and talent pool to minimize external costs	Achieved	<p>With an experienced and diverse management team and support staff in house, Avalon continues to advance its projects with in house expertise wherever possible to save on time and costs.</p> <p>Professional-level staff are often trained in new areas to provide technical, geological or health and safety support for projects. During the year, Avalon's Manager, Government Relations left the Company to enter federal politics. His exit strategy included training for the transfer of his work portfolio among several staff members.</p>

## Outreach

Facilitate communication between MAC and PDAC; specifically, to provide updates to PDAC on applicable MAC and regulatory initiatives as they develop	Achieved	<p>Avalon was pleased to provide support to the Prospectors and Developers Association of Canada (PDAC) CSR Committee in FY2018; Avalon's VP, Sustainability, Mark Wiseman participated on an expert panel representing exploration and development at the Energy and Mines World Congress in November 2017.</p> <p>In February 2018, Avalon was requested by PDAC and the Mining Association of Canada (MAC) to represent the exploration and development industry on a number of panels and in meetings with senior regulators and ministers. Avalon directly participated in the PDAC submissions to the federal government on energy regulation, the Fisheries Act and the Environmental Assessment Act.</p>
Continue to run successful course on "Exploration Health and Safety" at PDAC Convention 2018	Achieved	<p>Avalon successfully ran the "Exploration Health and Safety" course at the PDAC Convention 2018. Of the attendees, 80% rated the course "very valuable" and 15% "extremely valuable." 100% of the 2018 participants would recommend the course to a colleague. Avalon will continue to adjust the curriculum each year to address relevant topics and concerns.</p>

FY2018	Status	Comments
Organize inaugural course on “Environmental Management in Exploration Safety” at PDAC Convention 2018	Achieved	Avalon successfully developed and ran the inaugural course on “Environmental Management in Exploration Safety” at the PDAC Convention 2018. 75% of the participants rated it “very” or “extremely” valuable. 92.5% of the participants would recommend the course to a colleague. Due to the success of the inaugural course, the PDAC suggests continuing the course every second year, alternated with a course focused on community engagement.

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## Governance and Economics

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Reach out to socially responsible financial community to promote Avalon’s sustainability performance	Achieved	Avalon continues to seek out socially responsible investors and green funds that may be attracted to the Company due to its focus on sustainability as a strategic advantage. Avalon’s President and CEO continues to make this a priority, although there continues to be little uptake by investors due to the Company’s market capitalization being too low to meet the investors’ criteria.
100% compliance with all applicable legal requirements	Achieved	No known instances of non-compliance with regulatory requirements.

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## Sustainability Performance and Reporting

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Produce FY2018 Sustainability Report	Achieved	Completed.
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## Marketing

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Promote Avalon’s sustainability leadership and associated advantages in ongoing efforts to acquire strategic partners, investment or other support for Avalon’s projects	Achieved	Focus on sustainability continues to be a positively received story in discussions with governments whom have major policy focuses on cleantech supply chain development and resource efficiency in the production processes. See the Message from the President and CEO on <a href="#">page 1</a> for more information. Avalon’s investor relations directives continue to include promotion of the advantages of sustainability to socially responsible investors, including retaining several consultants with untapped networks.
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# FY2019 Goals

The following goals have been set by Avalon's management and the progress on reaching these goals will be reported in Avalon's FY2019 Sustainability Report.

## Health and Safety

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Zero fatalities

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Zero harm

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Zero lost time accidents

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Zero medical aid accidents

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Complete packer testing site work and ground water re-sampling without incident at Separation Rapids site

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Complete field program(s) without incident at Nechalacho site

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## Environment and Permitting

Monitor proposed and actual regulatory changes in all jurisdictions in which Avalon operates and respond to changes material to Avalon either independently or through industry associations, and adapt applicable environmental strategies as appropriate; GHG emissions, climate change audits and risk assessments identified as priorities

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Initiate geology crews tracking wildlife through Citizen Science

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Conduct alternate preliminary route assessment, design and costing to decide on most effective hydro line route to the Separation Rapids site and installation method with Hydro One (pending financing)

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Finalize the report comparing the spring and fall 2017 baseline data collection with the 2007 Separation Rapids Project Environmental and Social Impact Assessment (ESIA); determine if additional work is required in consultation with regulators and other interested stakeholders

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Create waste rock lithochemistry block models for Separation Rapids and East Kemptville deposits that enable enhanced design of waste rock handling for mine planning (pending financing)

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Complete additional leachate studies and humidity cell studies for waste materials at East Kemptville; advance or modify disposal strategies based on these results (pending financing)

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Identify locally-available organic waste and initiate re-vegetation trials at East Kemptville site, in collaboration with Nova Scotia Agricultural University (pending financing)

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Complete a formal site closure plan for East Kemptville site to incorporate new reclamation project development model for the Mining and Crown Land Lease and Project Registration/ Environmental and Social Impact Assessment (pending financing and Company prioritization)

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Renew Land Use Permit and Water Use License for pre-construction work at Nechalacho Project

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Initiate re-vegetation trails at the Nechalacho Project: replace older trees at risk of falling with younger trees to avoid clear cutting or affecting bush composition

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## People and Community

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Maximize utilization of existing workforce and talent pool to minimize external costs

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Ensure Avalon's sustainability questionnaire is being utilized by all departments when seeking proposals for applicable site work

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Engage with local COI regarding potential power line route and access road to the Separation Rapids site, along with other sustainable energy generation options

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Continue to work with the Wabaseemoong Independent Nations (WIN) to encourage more formal economic development initiatives by the Chief and Council

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Encourage and help facilitate collaboration by the WIN with universities and other institutions with regard to issues affecting the community and other initiatives in which WIN has interest

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Continue to provide updates or more detailed communications with the WIN, Ochiichagwe' Babigo' Ining Ojibway Nation and the Métis Nation of Ontario regarding the Separation Rapids Project

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Complete an MOU with the Acadia First Nation in Nova Scotia, with the goal of signing a subsequent Agreement focused on economic partnership regarding the East Kemptville Project (pending financing)

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Establish a community engagement committee with local COI, including regulators and Indigenous groups, at the East Kemptville Project (pending financing)

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Assess the economic benefits to re-activating the Nechalacho Project utilizing ore-sorting technology to produce a rare earth concentrate for export

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Engage with the Eabametoong First Nation at Fort Hope, Ontario in order to discuss potential field work program at Lilypad Cesium property

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## Outreach

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Facilitate communication between MAC and PDAC; specifically, to provide updates to PDAC on applicable MAC and regulatory initiatives as they develop

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Continue to successfully run the "Exploration Health and Safety" course at PDAC Convention 2019

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Complete lithium and rare earth elements recycling projects with University of Toronto engineering capstone students; initiate similar recycling project at another Canadian university

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## Governance and Economics

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100% compliance with all applicable legal requirements

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Promote Avalon's sustainability leadership and associated advantages in ongoing efforts to acquire strategic partners, investment or other support for Avalon's projects

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## Sustainability Performance and Reporting

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Conduct a company-wide assessment regarding the risks and opportunities posed by climate change that have the potential to generate substantive changes in future operations on all advancing projects

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Communicate with local COI, relevant NGOs and government regulators as part of the 2019 Sustainability Report preparation process

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Produce FY2019 Sustainability Report

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# Long term Goals

Avalon also tracks its progress towards achieving its long term or multi-year goals. Much of the progress towards these goals has been covered in other areas of this report.

## Long Term Goal

## FY2018 Progress

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### Health and Safety

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Complete the procedures and systems to support the Avalon Health, Safety and Environmental (HSE) management plan to achieve a TSM AAA rating prior to the start of construction

See FY2018 Health and Safety goals on [page 11](#).

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### Environment and Permitting

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Complete the procedures and systems to support the Avalon HSE management plan to achieve TSM AA rating for all environmental indicators prior to the start of construction

See FY2018 Environment and Permitting goals on [page 12](#).

Develop technologies that would improve performance and reduce costs at all Avalon projects providing a more sustainable future for the Company

In FY2018, Avalon collaborated with Cronimet Mining Processing to complete an ore-sorting testwork program conducted on samples of tin mineralization from the East Kemptville Project. The results provide encouragement that ore-sorting technology can be successfully implemented at East Kemptville to reduce both capital and operating costs and to reduce the volume of tailings generated from the proposed operation. See Avalon's news release "Avalon Receives Encouraging Ore-Sorting Test Results from East Kemptville Tin Project, Yarmouth Co., Nova Scotia" dated [September 17, 2018](#), for more information.

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## People and Community

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Engagement with Indigenous governments and organizations at projects appropriate to level of project activity, with the objective of achieving Agreements prior to operations

See the Message from the President and CEO on [page 4](#); the Message from the VP, Sustainability on [page 9](#); and FY2018 People and Community goals on [page 14](#).

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## Outreach

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Advocate for better industry sustainability practices and increase public awareness about the minerals/metals sector through industry associations

See the Message from the VP, Sustainability on [page 10](#) and FY2018 Outreach goals on [page 14](#).

Support Canada's leadership by advancing materials research through collaboration with universities, government and industry

See [page 5](#), [page 6](#) and the Message from the VP, Sustainability on [page 10](#).

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## Governance and Economics

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Create shareholder value through the development and operation of one or more projects in a sustainable and profitable manner

See Avalon's Annual Information Form available publicly on [SEDAR](#) and [EDGAR](#), as well as Avalon's website at [About - Governance](#).

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## Sustainability Performance and Reporting

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Investigate options for electronically tracking sustainability performance (dependent on projects' advancement); develop and implement these systems prior to operations

In FY2017, Avalon commenced discussion with researchers regarding the potential to utilize DNA scans to economically and more comprehensively perform benthic studies for environmental monitoring. Scans could be used to electronically track data. Avalon continues to monitor and support development, as it is an excellent and cost effective identification tool.

Identify and engage local contractors who can provide services that contribute to the longer term sustainability of projects

See GRI Disclosure 201-01 on [page 35](#).

Develop or formalize HSE management systems and externally audit such systems during construction; integrate financial and sustainability reporting, once audits demonstrate compatibility with financial systems

See the Message from the VP, Sustainability on [page 7](#).

Showcase the value of sustainability-driven mineral development companies to the investment community

Avalon continues to seek out socially responsible investors (SRIs) and green funds that may be attracted to the Company due to its focus on sustainability as a strategic advantage. Avalon's President and CEO continues to make this a priority.

The feedback from SRIs has all been positive in terms of the responsible approach Avalon is taking to project development; however, many SRIs are restricted from investing in "micro-cap" companies, so Avalon will need to achieve a higher market capitalization to attract significant investment capital from SRIs.