



March 26, 2015

Mr. Bill Volk  
Planning and Environmental Coordinator (Minerals)  
Bureau of Land Management, Pocatello Field Office  
4350 South Cliffs Drive  
Pocatello, ID 83204

File #RV-15-002

**Re: Rasmussen Valley Wildlife Habitat Conceptual Mitigation Approach- Proposed Action Addendum**

Dear Mr. Volk:

Nu-West Industries, Inc., doing business as Agrium Conda Phosphate Operations (Agrium), submitted the Rasmussen Valley Mine Project Mine and Reclamation Plan (Project) to the Bureau of Land Management (BLM) in January 2011. The BLM posted a NOI to prepare an EIS for the Project in the Federal Register on March 1, 2011. Please find the following attachment as an addendum to that original submittal of our plan.

The attached document titled, "Addition to the Proposed Rasmussen Valley Mine Project: Conceptual Wildlife Habitat Mitigation Approach" includes our planned approach to mitigate impacts to wildlife habitat that have been measured and more fully understood through the development of BLM's Environmental Impact Statement (EIS) process. The attached approach outlines our intentions to fully or partially mitigate impacts to wildlife habitat, as well as the details and timeline for inclusion of the mitigation approach in the EIS development process, which will lead to the fine tuning of our commitment to offer wildlife habitat mitigation following the receipt of the Record of Decisions from the BLM and the Forest Service for this project.

Please feel free to contact myself at (208) 547-4688 or Chris Guedes at (208) 547-1890 with any questions, comments or concerns.

Sincerely,

A handwritten signature in black ink that reads "Katy Bergholm".

Katy Bergholm  
Mine Permitting Manager



**GREATecology**  
ENVIRONMENT + DESIGN

## **AGRIUM**

### **TECHNICAL MEMORANDUM**

---

**ADDITION TO THE PROPOSED RASMUSSEN VALLEY MINE PROJECT:  
CONCEPTUAL WILDLIFE HABITAT MITIGATION APPROACH**

---

Submitted to:

**Agrium**  
**95 E Hooper Ave**  
**Soda Springs, ID 83276**

Date:

**March 27, 2015**

Prepared by



**GREATecology**  
ENVIRONMENT + DESIGN

3459 Ringsby Court, Suite 421  
Denver, CO 80216  
[greatecology.com](http://greatecology.com)

P: 303.872.0927

---

---

## CONCEPTUAL WILDLIFE HABITAT MITIGATION APPROACH

---

### INTRODUCTION

In 2011, Nu-West Industries, Inc., doing business as Agrium Conda Phosphate Operations (Agrium), submitted the Rasmussen Valley Mine Project Mine and Reclamation Plan (Mine Plan) proposing open pit mining of phosphate on Federal Phosphate Lease I-05975 and other National Forest Service System (NFS) lands, State of Idaho lands, and private lands located in Caribou County, Idaho, approximately 18 miles northeast of Soda Springs, Idaho (Agrium 2011). The Bureau of Land Management (BLM) is the lead agency administering proposed actions on Federal Phosphate Leases in southeastern Idaho under the National Environmental Policy Act (NEPA). The BLM and cooperating and participating federal and state agencies, including the United States Forest Service (USFS), the U.S. Army Corps of Engineers (USACE), the Idaho Department of Environmental Quality (IDEQ), the Idaho Department of Lands (IDL), and the Idaho Department of Fish and Game (IDFG) comprise the RVMP Interdisciplinary Team, or ID Team (Brown and Caldwell 2014). The proposed Mine Plan will disturb approximately 420.4 acres inside the Lease and 110.0 acres outside of the Lease (Agrium 2011). The purpose of this Technical Memorandum is to describe Agrium's conceptual approach to mitigation for potential impacts to wildlife habitat from the Rasmussen Valley Mine Project (RVMP).

Together with Agrium, the RVMP ID Team evaluates impacts to wildlife habitat from the RVMP for disclosure in an Environmental Impact Statement (EIS). The EIS will include evaluations of wildlife habitat services lost and gained through the proposed Mine Plan and any mine plan alternatives (Alternatives). As part of this process, the ID Team developed a site-specific Habitat Equivalency Analysis (HEA) to predict: (1) potential wildlife habitat services lost from the proposed Mine Plan and its Alternatives; (2) wildlife habitat services gained from proposed onsite reclamation; and (3) wildlife habitat services gained from a mitigation project, which refers to either any voluntary implementation of offsite wildlife habitat creation or enhancement, or the provision of an in-lieu fee to a conservation organization that Agrium may choose to propose for evaluation in the NEPA process (ARCADIS 2014a). The BLM and their consultants will present HEA results for impacts from the proposed Mine Plan and Alternatives and gains in wildlife habitat services from reclamation and a hypothetical mitigation project in a HEA Report to be discussed in the Draft EIS (DEIS). The details of Agrium's chosen mitigation plan will be included in the Final EIS (FEIS) and the Record of Decision (ROD) (ARCADIS 2014a).

To mitigate for potential residual impacts to wildlife habitat from the proposed RVMP, Agrium intends to provide an in-lieu fee to a third party to use for the benefit of wildlife habitat. This Technical Memorandum describes the process Agrium will undertake to:

1. Develop a hypothetical project;
2. Calculate baseline values of habitats;
3. Calculate costs;
4. Provide that amount to a third party for projects that benefit wildlife; and
5. Report on the final mitigation plan for reference in the FEIS and ROD.

## BACKGROUND

There are six steps in the HEA process for the RVMP EIS. The first step is identification of the existing habitat types that provide wildlife habitat services within an Area of Analysis around the RVMP mine footprint and the selection of a service function and metric that quantify the relative service value of each habitat type. The subsequent five steps include quantifying baseline wildlife habitat service value of these habitat types, estimating service acres lost and gained over time, and preparing a HEA spreadsheet model first with the Proposed project, then with any project Alternative selected by the BLM. The model calculates the losses from mining and the habitat gains from onsite reclamation in discounted service acre-years (DSAYs); any residual DSAY debit can be further offset by implementing offsite mitigation or providing an in-lieu fee to a third-party conservation organization.

The RVMP ID Team agreed on two service metrics to quantify the value of wildlife habitat. One metric, RICHCOVWET, is based on vegetation species richness, cover, and wetness for each habitat type. Within the RICHCOVWET metric, the contribution of each species to the richness measure in each habitat type is weighted based on its nativity, known use by wildlife, and the structure it provides. The second metric, within-aspen overstory (WAO), captures the varying wildlife habitat value based on aspen stand age class evenness, proportion of conifers, and snag density. The WAO values are then converted to RICHCOVWET values for comparison to other habitat types. Both metrics are calculated on a scale of 0 (low habitat value) to 1.0 (highest habitat value).

In HEA, the loss of wildlife habitat is dependent on when the impact occurs, its areal extent, the degree to which its RICHCOVWET value falls below its pre-injury value, and how long that value is lost. Similarly, gains in habitat from onsite reclamation or offsite mitigation are dependent upon when the reclamation or restoration begins, its areal extent, and the annual recovery of RICHCOVWET relative to the impacted habitat's baseline value over time. For the proposed RVMP HEA, the rate of recovery for each habitat was based on either empirical data from similar projects in the region or on trajectories reported in literature.

At any time during the HEA process, Agrium has the option to propose a mitigation project for evaluation to compensate for the predicted residual impact to wildlife habitat services. The mitigation project can either be a real or hypothetical project, the estimated cost of which Agrium could provide in part or in full to a third-party conservation organization. That party would then be obliged to use those funds for the benefit of wildlife habitat in the region. In either case, the mitigation project will be evaluated in the HEA using the RICHCOVWET and WAO metrics, as appropriate. Agrium will provide the HEA inputs for baseline, predictive assumptions, and DSAY values for the mitigation actions for review by the ID Team. The resulting DSAY gain from the HEA evaluation of the real or hypothetical mitigation project will then be disclosed in the FEIS (ARCADIS 2014d).

## MITIGATION APPROACH

Agrium has elected to submit a mitigation plan to offset any DSAY debit from the proposed RVMP. Agrium will develop a hypothetical mitigation project and calculate a corresponding in-lieu fee amount. This fee will be transferred to a third-party conservation organization and used to benefit wildlife habitat in the local region through activities that may or may not include the implementation of a project similar to the hypothetical mitigation project. The details of the mitigation plan will be described in a Technical Memorandum entitled, *Wildlife Habitat Mitigation Plan for the Rasmussen Valley Mine Project Technical Memorandum (Wildlife Habitat Mitigation Plan TM)*. Agrium will complete this memorandum and submit to the BLM for inclusion in the FEIS.

## WILDLIFE HABITAT MITIGATION PLAN TM COMPONENTS

The Wildlife Habitat Mitigation Plan TM will include five components: (1) a detailed hypothetical mitigation project, (2) baseline DSAY values and assumptions, (3) a calculation of per-acre cost of mitigation and cost to offset DSAY debit, (4) description of provision of the corresponding in-lieu fee to a third party and the selection of wildlife mitigation plans, a process in which Agrium may choose to be involved, and (5) fulfillment of the voluntary mitigation. The Wildlife Habitat Mitigation Plan TM will describe, in detail, the following information:

### HYPOTHETICAL MITIGATION PROJECT

- Agrium will develop a hypothetical mitigation project that illustrates habitat enhancement on a local parcel;
- Agrium will provide a description of hypothetical mitigation actions that restore primarily in-kind habitat, as preferred by the BLM (BLM 2013, Section D.10, Page 9), to offset the residual DSAY impact partially or fully;
- The hypothetical actions will be assumed to occur within the U.S. Geological Survey (USGS) Level 4 Blackfoot Hydrological Unit Code (HUC) 17040207, the same HUC as the RVMP site; and
- Agrium will use data from the literature, a similar project, or a representative site in this area from which to estimate baseline values of habitats.

### CALCULATION OF BASELINE VALUES

- Agrium will provide the baseline value of the hypothetical mitigation habitat(s) in terms of RICHCOVWET and WAO service metrics estimated from aerial photographs and/or data taken from similar habitats;
- Agrium also will develop and use habitat recovery trajectories to calculate DSAY values of the hypothetical mitigation actions as specified in the HEA Study Plan (ARCADIS 2014a); and
- Agrium will provide details regarding all assumptions used to support development of baseline and mitigation improvement value calculations.

### CALCULATION OF PER-ACRE COSTS AND DSAY OFFSET

- Agrium will provide an estimate of the per-acre cost to complete the hypothetical mitigation actions;
- Cost will include planning, design, and implementation;
- This estimate will be based on communications with local restoration contractors, other similar projects completed in the region, and current industry cost data; and
- Agrium will also calculate the DSAY offset of the hypothetical mitigation actions, as well as the cost to offset any DSAY debit. This estimate will be used to define the approximate amount of the in-lieu fee that Agrium will provide a third party to satisfy their voluntary mitigation.

### **PROVIDING IN-LIEU FEE TO A THIRD PARTY**

- Agrium will provide the in-lieu fee to a third-party conservation organization of its choosing;
- The third party's objectives will align with the wildlife habitat enhancement objectives of the HEA as per ARCADIS 2014d;
- After Agrium provides the in-lieu fee, the third party will be required to assemble an interdisciplinary/stakeholder board to make decisions on how the funds will be spent;
- The organization will spend the funds within the Blackfoot River watershed or the USGS Level 4 Blackfoot or Willow HUCs 17040207 and 1704025, respectively; and
- Agrium and the BLM will coordinate with the third party to direct the use of the funds primarily to benefit wildlife habitat in alignment with BLM goals.

### **MITIGATION FULFILLMENT**

- This component of the Wildlife Habitat Mitigation Plan TM will describe the timeline and the fulfillment of Agrium's voluntary mitigation via an in-lieu fee;
- Agrium will provide the mitigation fee to the third party following the signing of the ROD; and
- Agrium's voluntary mitigation will be fulfilled and will not be obligated to perform any monitoring or other tasks related to wildlife habitat work performed by the third-party organization.

### **TIMELINE OF MITIGATION APPROACH**

The mitigation approach described in this document will be submitted to the BLM to be discussed in the DEIS. Concurrent to finalizing this mitigation approach document, Agrium will internally develop the first three components of the Wildlife Habitat Mitigation Plan TM. Following the finalization of any RVMP Alternatives analysis and the completion of the DEIS, Agrium will finalize the analysis of the mitigation plan's hypothetical mitigation actions to scale them to offset the final DSAY debit in part or in full, and will calculate the cost of the final hypothetical mitigation actions in coordination with the ID Team. During this time, Agrium will also identify a recipient of the in-lieu fee and coordinate with the BLM and the third-party in confirming that the fee will be spent in accordance with the HEA objectives. Once the use of the fee is agreed upon, Agrium will develop the Wildlife Habitat Mitigation Plan TM that will detail the mitigation approach, which will be submitted to the BLM for discussion in the FEIS. After the ROD is signed, Agrium will provide the in-lieu fee to the third party.

## REFERENCES

- Agrium Conda Phosphate Operations (Agrium). 2011. Rasmussen Valley Mine Project Mine and Reclamation Plan (Revision 1). January 2011.
- ARCADIS. 2014a. Wildlife Habitat Equivalency Analysis Study Plan. Rasmussen Valley Mine Project. Prepared for Bureau of Land Management, United States Forest Service, United States Fish and Wildlife Service, United States Army Corps of Engineers, and Idaho Department of Fish and Game by ARCADIS U.S., Inc., Highlands Ranch, Colorado.
- ARCADIS. 2014b. Wildlife Habitat Equivalency Analysis Baseline Metrics Report. Rasmussen Valley Mine Project. Prepared for Bureau of Land Management, United States Forest Service, United States Fish and Wildlife Service, United States Army Corps of Engineers, and Idaho Department of Fish and Game by ARCADIS U.S., Inc., Highlands Ranch, Colorado.
- ARCADIS. 2014c. Wildlife Habitat Equivalency Analysis Predictive Metrics Report. Rasmussen Valley Mine Project. Prepared for Bureau of Land Management, United States Forest Service, United States Fish and Wildlife Service, United States Army Corps of Engineers, and Idaho Department of Fish and Game by ARCADIS U.S., Inc., Highlands Ranch, Colorado.
- ARCADIS. 2014d. Wildlife Habitat Equivalency Analysis Report. Rasmussen Valley Mine Project. Prepared for the Bureau of Land Management and U.S. Forest Service by ARCADIS U.S., Inc., Highlands Ranch, Colorado.
- Brown and Caldwell. 2013. Technical Memorandum: 2009 Fisheries Baseline Study Plan Documentation. Prepared for United States Department of the Interior Bureau of Land Management (BLM) by Brown and Caldwell 950 West Bannock Street, Suite 250 Boise, Idaho 83702.
- Bureau of Land Management (BLM). 2013. Draft Regional Mitigation, Manual Section 1794. Online: [http://www.blm.gov/style/medialib/blm/wo/Information\\_Resources\\_Management/policy/im\\_attachments/2013.Par.57631.File.dat/IM2013-142\\_att1.pdf](http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/im_attachments/2013.Par.57631.File.dat/IM2013-142_att1.pdf). Accessed 1/22/2015.