

## Terry Kosinski

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**From:** David Park  
**Sent:** Friday, September 10, 2010 11:13 AM  
**To:** Terry Kosinski  
**Subject:** FW: CoP revision and aggregate extraction policy

**Attachments:** Picture (Metafile)

FYI...

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**From:** Augustus Archampong  
**Sent:** Thursday, September 09, 2010 1:59 PM  
**To:** David Park  
**Subject:** RE: CoP revision and aggregate extraction policy

Hello David,

It looks like everyone is coming out of the summer loll. I trust you have had a chance to catch your breath and are ready for fall-winter fun.

The prospective wetland policy continues to be the obstacle on the way for developing the CoP. I learned that the wetland policy draft has been approved for consultation. I believe we will not know much until the end of the fiscal year.

The Regional Services Branch wants the regulation of wetlands to be carried out under the CoP. We will not know if this is feasible under the current structure of the CoP - there may be a need to classify wetlands in a format somewhat similar to the stream classification. You and I need to discuss this matter.

Another lingering issue is the CoP maps and the possible development of one electronic map for the entire province. Again we need to discuss this subject.

Any changes made to the CoP will require changes to the Water (Ministerial) Regulation. It is logical that these changes be made in association with other suggested changes to the Regulation; things snowball, don't they? Regulation changes may require public consultation...

Now, about aggregate. There will be a meeting on the subject at Ernie's office tomorrow afternoon. I will keep you posted.

Cheers, Archie.

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**From:** David Park  
**Sent:** Tuesday, August 24, 2010 9:41 AM  
**To:** Augustus Archampong  
**Subject:** CoP revision and aggregate extraction policy

Hi Archie,

How close are we to resuming the progress on the CoP revision? This remains a high priority for SRD Fisheries. I'm also wondering if there are any developments of note on the aggregate extraction policy front, particularly give TRANS' rejection.

Pls. advise.  
Dave

Regards,

*David Park, M. Sc.*  
Fisheries Biologist  
Alberta Sustainable Resource Development  
Fisheries Management  
Edmonton

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## Terry Kosinski

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**From:** Dave Walty  
**Sent:** Friday, October 29, 2010 3:30 PM  
**To:** \_SRD-FWD-FW Program Managers  
**Cc:** David Park  
**Subject:** FW: Emailing: Background Information\_20100805.doc, Consultation and Implementation Plans\_20100804.doc, Aggregate Extraction Policy\_v6\_20100804.doc

**Attachments:** Background Information\_20100805.doc; Consultation and Implementation Plans\_20100804.doc; Aggregate Extraction Policy\_v6\_20100804.doc



Background  
formation\_2010080



Consultation and  
Implementatio...



Aggregate  
xtraction Policy\_v6.

The following documents are provided for your review and comments as identified in the last face to face mgrs. meeting in Edm. D.Park has posted these to share point to facilitate an integrated review.



**Background Information & Policy Context**  
**Surface Water Body Aggregate Policy**  
**Document 1 of 3**

**Government of Alberta**  
**September 2010**

## List of Acronyms

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<b>AAMDC</b>	Alberta Association of Municipal Districts & Counties
<b>AENV</b>	Alberta Environment
<b>ASGA</b>	Alberta Sand and Gravel Association
<b>ASRD</b>	Alberta Sustainable Resource Development
<b>AUMA</b>	Alberta Urban Municipalities Association
<b>CRBP</b>	Conservation and Reclamation Business Plan
<b>DFO</b>	Fisheries and Oceans Canada
<b>EPEA</b>	<i>Environmental Protection and Enhancement Act</i>
<b>GoA</b>	Government of Alberta
<b>HADD</b>	Harmful Alteration, Disruption, or Destruction
<b>JTIWG</b>	Joint Technical Issues Working Group
<b>LOC</b>	Licence of Occupation
<b>LUF</b>	Land-use Framework
<b>PLA</b>	<i>Public Lands Act</i>
<b>SMC</b>	Surface Materials Licence
<b>SME</b>	Surface Materials Exploration Permit
<b>SML</b>	Surface Materials Lease
<b>ToR</b>	Terms of Reference
<b>WA</b>	<i>Water Act</i>

## **A. Explanation of Problem & Drivers for Policy**

Aggregate extraction within the active and non-active areas of surface water bodies has occurred in the province for decades. The apparent ease of access to the aggregate may have influenced this choice. Aggregate extraction is an important contributor to economic activity in Alberta and there is an increasing demand from local governments and industry to extract aggregate resources from surface water bodies for commercial purposes.

Occasionally there may be demand from local governments to handle aggregate from surface water bodies as a preventative or mitigative measure, or in emergency situations. This demand is often countered by public concern about allowing aggregate extraction operations in surface water bodies, which is why authorizations have not been issued for the past ten years. Although this approach protected the aquatic environment, the public was not given any guidance as to where they can access aggregate resources.

Aggregate extraction in surface water bodies is a concern as the associated operations, in general, have been shown to have significant adverse effects on aquatic species and habitat, water quality, the configuration of the bed, banks and shores of water bodies, and riparian terrestrial habitat. Physical changes to a surface water body as a result of aggregate extraction operations have also been shown to have an adverse effect on adjacent lands and infrastructure, both upstream and downstream of the operation location.

There is no formal provincial policy on surface water body aggregate extraction. A clear and consistent policy to guide review of applications for regulatory authorizations will provide greater clarity for proponents of aggregate extraction operations. The strict approach adopted by this policy will lead to higher environmental protection.

## **B. Current Regulatory State**

### **1. Municipal**

The *Municipal Government Act* (Municipal Affairs) authorizes municipal governments to create bylaws, which may affect aggregate extraction from surface water bodies.

### **2. Provincial**

Aggregate extraction operations on public and private lands in Alberta are regulated under three provincial enactments: the *Water Act* (Alberta Environment), the *Public Lands Act* (Alberta Sustainable Resource Development), and the *Environmental Protection and Enhancement Act* (Alberta Environment). These have separate and distinct regulatory processes that are not always well integrated. Meeting provincial standards and requirements does not ensure that federal regulatory requirements will be met.



### 3. Federal

Aggregate extraction operations situated in the active and/or non-active areas of surface water bodies must also meet federal regulatory requirements under the *Fisheries Act*, the *Navigable Waters Protection Act*, and possibly the *Canadian Environmental Assessment Act* or the *Species at Risk Act*.

Any work or undertaking that causes the harmful alteration, disruption or destruction (HADD) of fish habitat is prohibited unless authorized under the federal *Fisheries Act*. DFO will review proposed works or undertakings using the Risk Management Framework as outlined in the Practitioners Guide to the Risk Management Framework for DFO Habitat Management Staff. DFO may choose NOT to issue an authorization where:

- the magnitude and duration of the HADD is unacceptable;
- the fish habitat affected is critical to the maintenance of fish populations;
- the works or undertakings would result in the deposit of a deleterious substance into fish bearing habitat;
- no acceptable compensation (to replace affected fish habitat) can be achieved.

Prior to issuing any authorization, the potential environmental effects of the project must also be assessed pursuant to the *Canadian Environmental Assessment Act* and a determination of 'no significant adverse environmental effects' be made.

This approach is consistent with the objectives of ASRD, under the *Public Lands Act*, and AENV, under the *Water Act* and the *Environmental Protection and Enhancement Act*, who are required to consider the protection of the aquatic environment when issuing authorizations.

In the past 10 years, DFO has declined issuing authorizations in Alberta under the *Fisheries Act* (Canada) for extraction within the active channel of fish bearing surface water bodies. AENV and ASRD similarly have not issued any provincial approvals.

### 4. Other Jurisdictions

Aggregate extraction from the active area of surface water bodies "has been prohibited in the United Kingdom, Germany, France, The Netherlands, and Switzerland and is being reduced in rivers in Italy, Portugal, and New Zealand".

[Source: Kondolf, G.M (1997) Hungry water: effects of dams and gravel mining on river channels. *Environ. Manage.* 21:533-551. IN Meador and Layher (1998) Instream sand and gravel mining: Environmental issues and regulatory process in the United States. *Fisheries Habitat.* 23(11): 6-13.]



## C. Relationship to GoA Strategic Policy

### 1. Land-use Framework

- Need to provide guidance to LUF regional plans as to where aggregate extraction from surface water bodies may be acceptable.
- Would enable 'place-based' responses to aggregate extraction regulatory applications, but provide a provincially consistent policy to determine whether or not it would be acceptable in the provincial policy and regulatory contexts.
- Need to have a consistent policy so that the cumulative effects of aggregate extraction are considered and managed.
- Surface Water Aggregate Policy would be applicable to public and private lands, as per Guidelines for Risk Assessments.
- Relevant Strategies:
  - Strategy 1: Develop seven regional land-use plans based on seven new land-use regions.
  - Strategy 3: Cumulative effects management will be used at the regional level to manage the impacts of development on land, water, and air.
  - Strategy 4: Develop a strategy for conservation and stewardship on private and public lands

### 2. Water for Life Strategy

- Supports the Healthy Aquatic Ecosystems outcome through the Guidelines for Risk Assessments, which would help to ensure the maintenance and preservation of natural habitat.
- Relevant Action Plan items:
  - Action 2.1: Enforce protection of known critical aquatic ecosystems using existing legislation
  - Action 2.6: Implement aquatic restoration plan and conserve key aquatic ecosystems through regional land-use approaches and identified partnerships

## D. Work to Date

Numerous attempts have been made at drafting a GoA Surface Water Body Aggregate Policy. Due to the number of parties involved, it has been difficult to obtain consensus.

The Joint Technical Issues Working Group (JTIWG) has provided recommendations for aggregate extraction in the active area of surface water bodies. The consensus of the JTIWG is to not permit any extraction in any active area of any surface water body at any time. The group proposes that this be adopted by the Government of Alberta and Fisheries & Oceans Canada.

## E. Current Work

Alberta's Minister of Environment requested that a GoA policy be developed to transparently and consistently regulate at the provincial level aggregate extraction from



surface water bodies. AENV led the development of the GoA's position on aggregate extraction from surface water bodies in partnership with ASRD. Terms of Reference were drafted and the parties indicated below were included in the development of the attached Surface Water Body Aggregate Policy (Document 2).

<b>Sector</b>	<b>Target audiences</b>	<b>Outcome of consultation</b>	<b>Methods of consultation</b>
AENV	Water Policy Branch; Regional Staff; River Forecasting; First Nations advisors; Legal Services	Surface Water body Aggregate Policy	Committee Representation; Meetings; Email requests for comments
ASRD	Fish & Wildlife Division; Lands Division	Surface Water body Aggregate Policy	Committee Representation; Meetings; Email requests for comments
Other GoA Ministries	Alberta Transportation	Awareness of policy changes & understanding of required process.	Committee Representation
Federal Regulatory Agencies	DFO	Ensure consistency with DFO legislation. Awareness of policy changes & understanding of required process.	Committee Representation
Municipal and Local Governments	AAMDC	Awareness of policy changes & understanding of required process.	Committee Representation
Other Proponents	ASGA	Awareness of policy changes & understanding of required process.	Committee Representation

## **F. Proposed Future Work**

- Consult with and educate stakeholders
- Develop Guidelines for Risk Assessment
- Develop a Monitoring and Evaluation Plan

For all of the above, see attached stakeholder consultation and implementation plans (Document 3).



**Consultation and Implementation Plans**  
**Surface Water Body Aggregate Policy**  
**Document 3 of 3**

**Government of Alberta**  
**September 2010**

## I. Draft Stakeholder Consultation Plan

Desired outcome is: Awareness of policy changes & understanding of required process.

Sector	Target audiences	Appropriate methods of consultation
AENV		Tbd
ASRD		Tbd
Other GoA Ministries	Alberta Transportation	Tbd
Federal Regulatory Agencies	DFO	Tbd
Municipal and Local Governments	AAMDC; AUMA	Membership Poll; Fact Sheets
Other Proponents	ASGA; Registered pit owners	Membership notification; Letter to all registered pit owners; Fact Sheets
First Nations		Meetings – likely require presence of our FN advisors/ consultation specialists.
Partnerships	Alberta Water Council; Watershed Planning and Advisory Councils	Internet-based questionnaire; Fact Sheets
Public		Internet-based questionnaire; Fact Sheets



## II. Implementation Plan

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This policy is effective immediately following Ministerial approval from the participating departments. No legislative changes are required.

To further implement the intent of this policy, the following actions are recommended:

### I. Coordinate AENV & ASRD regulatory requirements and processes

1. Expand on the Risk Assessment guidelines in the policy to satisfy ASRD & AENV requirements by developing a Guidelines for Risk Assessments document
  - i. Based on current Guidelines for Acquiring Surface Material Dispositions on Public Land (ASRD 2008)
  - ii. Include AENV matters and factors to be considered by the Director when making a decision
  - iii. Maintain consistency with Risk Management Framework as outlined in the Practitioners Guide to the Risk Management Framework for DFO Habitat Management Staff
  - iv. Consider developing format guidelines to improve consistency between proponents
2. Identify operator monitoring and reporting requirements for both ASRD and AENV
3. Strengthen the referral process between ASRD and AENV
4. Clarify roles of regulatory agencies, particularly with respect to emergency situations

### II. Engage and educate on the Surface Water body Aggregate Policy

1. GoA Departments;
2. Partners & public;
3. Proponents.

### III. Develop a Monitoring and Evaluation Plan for the Surface Water body Aggregate Policy

1. Develop approach and timeline to evaluate efficacy of policy in mitigating environmental effects of aggregate extraction
2. Develop approach and timeline to evaluate intent of policy; consider evolving knowledge and circumstances
3. Update policy as required to incorporate new information
4. Update policy as required to reflect other inter-related provincial policies

# **Surface Water Body Aggregate Policy**

**Document 2 of 3**

**Government of Alberta**

**September 2010**



## **I. Endorsement**

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The following parties agree to implement the policy outlined below, as well as the attached consultation and implementation plans.

This policy is effective from the date of signature. Amendments may be made at any time by mutual consent and sign-off of the parties below.

### **Signatures: Participating Organizations**

#### **Government of Alberta: Alberta Sustainable Resource Development**

\_\_\_\_\_  
Hon. Mel Knight, Minister

\_\_\_\_\_  
Date

#### **Government of Alberta: Alberta Environment**

\_\_\_\_\_  
Hon. Rob Renner, Minister

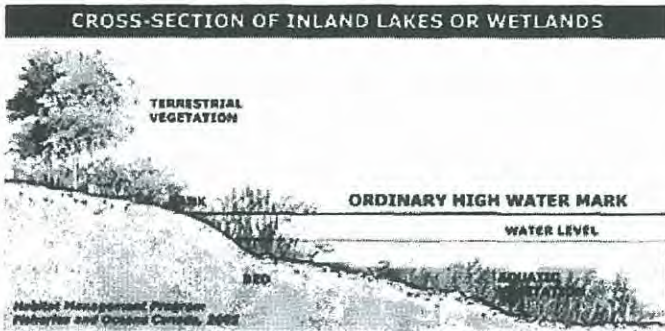
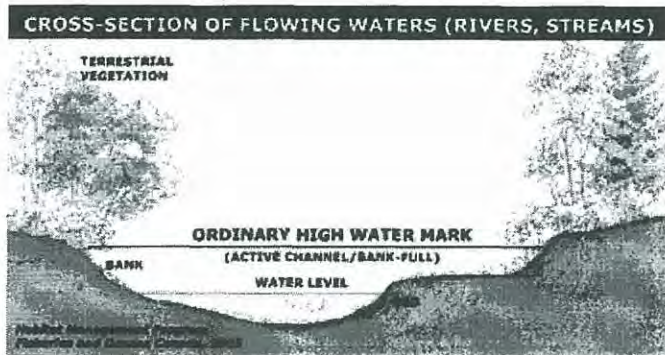
\_\_\_\_\_  
Date

## II. Glossary

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For the purposes of this policy, the following definitions have been adopted:

**Active area of a surface water body:** Area lying between the *ordinary high water marks* on each bank [see diagrams below].



Source:

Appendix C, DFO Operational Statements – Beaver Dam Removal/Culvert Maintenance, 2010 [<http://www.4lanehighway17kenora.ca/highway17/pdf/Appendix%20C.pdf>]

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**Aggregate:** Any sand, gravel, clay or marl that is excavated from a pit, whether in a processed or unprocessed form, but does not include *reject*.

**Emergency situation:** Any situation that may jeopardize human life or capital infrastructure and where aggregate removal is incidental to the activities required to alleviate that threat.

**Extraction:** Includes the stripping and stockpiling of soil, overburden, and aggregate materials and the transport of said materials within the site.

**Non-active area of a surface water body:** Any area in the drainage basin of a surface water body that is not included in the active area.



**Ordinary high water mark:** The point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognized characteristic.

**Qualified professional:** Alberta Environment and Alberta Sustainable Resource Development recognize the following seven professional regulatory organizations (PROs) and whose members may have the scope of practice to conduct risk assessments for proposed aggregate operations:

- Alberta Institute of Agrologists (AIA)
- Alberta Society of Professional Biologists (ASPB)
- Association of the Chemical Profession of Alberta (ACPA)
- Association of Professional Engineers and Geologists and Geophysicists of Alberta (APEGGA)
- College of Alberta Professional Foresters (CAPF)
- College of Alberta Professional Forest Technologists (CAPFT)
- Qualified Aquatic Environment Specialist

For specific recommendations see requirements for Reclamation Certification: [<http://environment.alberta.ca/documents/Reclamation-Certificates-Professional-Declaration-Requirements.pdf>] or Code of Practice for Pits

**Reject:** Aggregate that is expected to be unsuitable for use as a product, or for blending with other aggregate to form a product, and is therefore expected to be used for reclamation of the pit.

**Surface Water Body:** A **Water Body**, as defined in the *Water Act*, excluding wetlands.

**Water Body (*Water Act*):** Any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but is not limited to wetlands and aquifers but does not include except for clause (nn) and section 99 “water body” that is part of an irrigation works if the irrigation works is subject to a licence and the irrigation works is owned by the licensee, unless the regulations specify that the location is included in the definition of water body.

### **III. Surface Water Body Aggregate Extraction Policy**

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#### **A. Purpose**

Develop GoA policy to support the provincial regulatory decision-making processes for proposed *aggregate extraction* operations in *active* and *non-active* areas of all surface *water bodies*.

#### **B. Authority**

This policy gives guidance to reviewing applications for authorizations to initiate aggregate extraction operations under the *Public Lands Act*, the *Water Act*, and the *Environmental Protection and Enhancement Act*.

Although this policy is for aggregate extraction from surface water bodies, excluding wetlands, impacts on aquifers and wetlands will be considered in the risk assessment required of each application.

- In the case of contradiction between this policy and any Act, Regulation, or Code, the Act, Regulation, or Code prevails.
- For aggregate extraction from aquifers, refer to Groundwater Evaluation Guidelines
- For aggregate extraction from wetlands, refer to the Alberta wetlands policy [interim policy currently effective; provincial policy currently being developed]

This policy is only applicable to aggregate extraction from surface water bodies.

#### **C. Assumptions and Principles**

1. Aggregate extraction in any active area of a surface water body will have adverse environmental impacts.
2. Aggregate extraction in a non-active area of a surface water body may have adverse environmental impacts if not carried out responsibly.
3. This policy promotes a risk-based approach to aggregate extraction in the non active area of surface water body.
4. Applications for authorizations to initiate aggregate extraction from surface water bodies will be processed according to the guidance outlined in this policy, which considers the regulatory mandates of AENV and ASRD.

#### **D. Vision and Outcomes**

Surface water body aggregate extraction operations are carried out responsibly to ensure the maintenance and protection of the natural morphology of water body systems, including aquifers and wetlands, the quality of water they contain, and the maintenance of aquatic and terrestrial habitat.



- Aggregate extraction from surface water is permitted to occur only in areas where it will not adversely impact the environment or aquatic ecosystems
- The GoA has a common and consistent approach to applications for authorizations for aggregate extraction from a surface water body
- The roles and responsibilities of regulators are clearly defined

## **E. Policy Guidelines for Aggregate Extraction from Surface Water Bodies**

### **1. New Aggregate Extraction Operations**

#### **1.1. Active Area of a Surface Water Body**

New aggregate extraction operations proposed within the active area of a surface water body will not be authorized by AENV or ASRD, with the possible limited exception of preventative and mitigative measures.

#### **1.2. Non-active Area of a Surface Water Body**

New aggregate extraction operations proposed within the non-active area of a surface water body will only be considered for authorizations when the proponent provides a risk assessment of the impacts, completed by a *qualified professional*.

Proponents of all aggregate extraction operations must also ensure that all municipal bylaws, provincial and federal regulations, statutes, and policies will be met.

### **2. Existing Approved Aggregate Extraction Operations**

Existing approved aggregated extraction operations will be allowed to continue for the remaining term of their *Public Lands Act*, *Environmental Protection and Enhancement Act*, or *Water Act* authorizations, subject to the requirements under the *Fisheries Act*. After this time, a renewal of an existing authorization will include a plan, where necessary, to bring the existing operation into compliance with the requirements outlined under this policy for new aggregate extraction operations. This may include, but does not necessarily include, a risk assessment.

### **3. Undeveloped Aggregate Extraction Operations**

Undeveloped aggregate extraction operations that have a *Public Lands Act* authorization but no *Environmental Protection and Enhancement Act* or *Water Act* authorizations as of the effective date of this policy will be considered a new aggregate extraction operation and are subject to this Policy as if they are “new” aggregate extraction operations. A risk assessment will be required.

### **4. Emergency Situations**

In rare circumstances, measures to protect human life or capital infrastructure in emergency situations may require aggregate relocation from surface water bodies as part of the emergency response. The various regulatory authorities have appropriate



regulations and procedures in place to address emergencies and will review applications for emergency work on a case-by-case basis. This may include, but does not necessarily include, a risk assessment.

Emergency situations will not be viewed as an opportunity to remove aggregates from water bodies for commercial purposes. Any aggregate removal will be strictly incidental to the emergency works and subject to approval conditions of regulatory authorities.

## 5. Preventative & Mitigative Measures

Occasionally municipalities and other agencies responsible for capital infrastructure may need to conduct activities in the active area of a surface water body to prevent or mitigate damage to capital infrastructure and avoid future emergency situations. In these situations, time lines are not generally critical and normal departmental review procedures can be applied. In some circumstances, aggregate removal and/or relocation may be a component of the works, in which case a risk assessment will be required. However, all reasonable options must be considered and the project will not be treated as an opportunity for aggregate extraction for commercial purposes.

## 6. Risk Assessments

The risk assessment will evaluate environmental impacts of the proposed operation and define the strategies that will be employed to mitigate or compensate for those impacts. The risk assessment is to include, but is not limited to, the following components:

- Fish and wildlife, including aquatic species, terrestrial species, and species at risk
- Land, including vegetation and soils
- Hydrogeology and hydrology, including flood risk and base flow
- River engineering, including channel morphology and bank stability
- Limnology, including water quality and impact on biota
- Wetlands
- The Guidelines for Acquiring Surface Material Dispositions on Public Land (ASRD 2008)
- *Water Act* and *EPEA* requirements and factors the Director must consider when making a decision
- The Risk Management Framework as outlined in the Practitioners Guide to the Risk Management Framework for DFO Habitat Management Staff
- Other requirements identified in the Guidelines for Risk Assessments (to be developed pursuant to this policy by AENV and ASRD)
- Other requirements identified in the Monitoring and Evaluation Plan (to be developed pursuant to this policy by AENV and ASRD)

If the proposed includes preventative measures or emergency situations, the proponent is required to assess the effects that the proposed work will have on bank and channel stability of the water body, including upstream and downstream of the proposed operations.



Proponents should contact ASRD and AENV for details at the application stage.

## **F. Guidance on Common Regulatory Instruments**

### **1. Applicable AENV & ASRD Regulations and Guidelines**

The applicability of legislation is dependent upon the location of the desired aggregate and, particularly, whether it is associated with public or private lands and/or is near a water body or may influence a water body, including aquifers and wetlands. The primary legislative considerations for surface water body aggregate extraction are listed below.

#### **1.1. *Public Lands Act (ASRD)***

The *PLA* pertains to the ownership and management of public land, including the beds and shores of watercourses and water bodies. The *PLA* also provides for the allocation of aggregate, royalties, access, and enforcement.

Regulations include:

- Surface Materials Regulation
- Disposition & Fees Regulation

Guidelines include:

- Guidelines for Acquiring Surface Material Dispositions on Public Land (including preparation of a risk assessment)

Possible Operator Requirements:

- Surface materials exploration (SME) permit
- Surface materials lease (SML), licence (SMC), reservation, or public pit licence  
Includes risk assessment and payment of fees.
- Licence of Occupation (LOC)
- Conservation and Reclamation Business Plan

#### **1.2. *Environmental Protection and Enhancement Act (AENV)***

The *EPEA* pertains to environmental assessment, approvals, appeals, air and water emissions, conservation and reclamation, and enhancement. This legislation has application on all lands, private or public or water-related.

Regulations include:

- Activities Designation Regulation
- Approvals Procedure Regulation
- Conservation and Reclamation Regulation, including Code of Practice for Pits

Guidelines include:

- Environmental Protection Guidelines for Pits (Conservation & Reclamation Information letter 96-95)



Possible Operator Requirements:

- Registration  
For private land pits with potential surface area disturbances exceeding five hectares (Class 1 Pits)
- Reclamation Certificate  
Includes Conservation & Reclamation Plan and payment of securities.

### 1.3. *Water Act* (AENV)

The *WA* pertains to management, use, allocation and environmental protection in conjunction with activities that may influence water. Hence, washing operations diversions, activities in floodplains and creation of water bodies are activities associated with aggregate extraction that may have application.

Regulations include:

- Water (Ministerial) Regulation

Possible Operator Requirements:

- Licence  
For diversion of water
- Approval  
For the establishment/operation of works in a water body

### 1.4. Other Applicable Guidelines

Aggregate extraction operations should also comply with the following:

- Fish & Wildlife Objectives (ASRD)
- First Nations Consultation Policy (ASRD)
- Alberta First Nations Consultation (AENV)

### 1.5. Required Applications

The list below includes provincial regulatory authorizations and links to the respective application forms. These applications are always required for initiation of the provincial regulatory review process.

- ASRD Public Lands Act disposition  
<http://www.srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx>
- AENV Water Act approval and/or licence  
<http://environment.alberta.ca/01189.html>
- AENV EPEA Code of Practice for Pits registration  
<http://environment.alberta.ca/01113.html>

It is assumed that each Ministry will share applications with other partner agencies, within the constraints of the *Freedom of Information and Protection of Privacy Act (FOIP)*.

## 2. Potential Regulatory Requirements

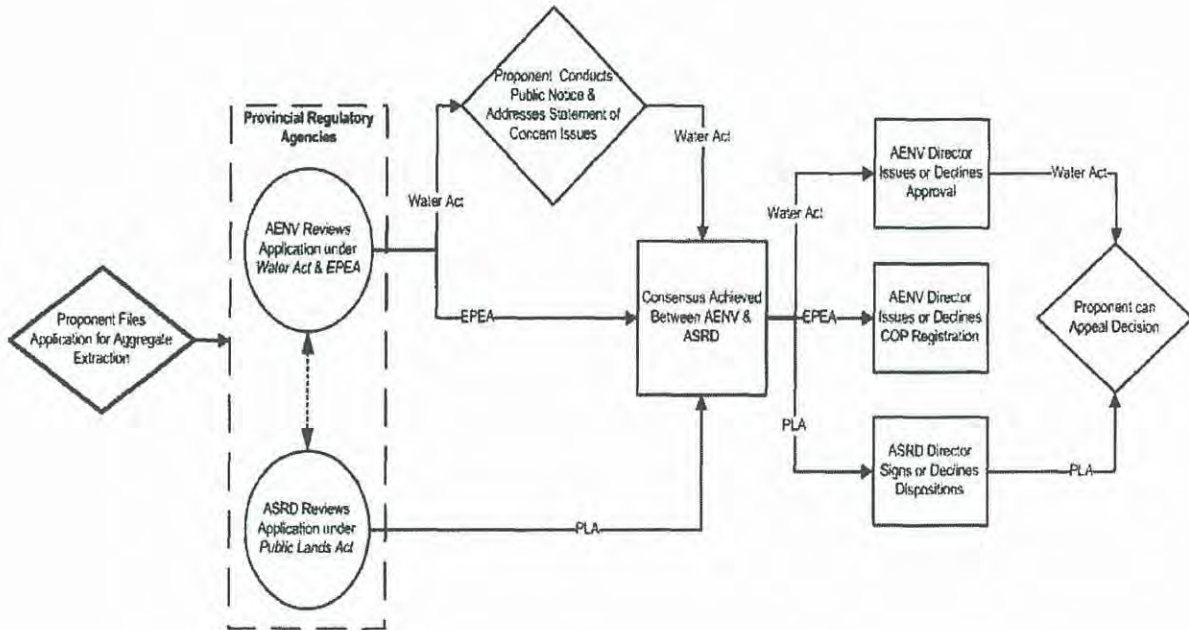
Depending on location and/or scope of the operation, proponents may also need to consider other regulatory requirements, which may include but are not necessarily limited to the following:

Legislation	Organization	Function
<i>Canadian Environmental Assessment Act</i>	Multi-agency (Federal)	Assessment of specified developments that may affect the environment
<i>Fisheries Act</i>	Environment Canada	Regulation of the release of deleterious substances (section 36(3)) for the purposes of protecting fish and fish habitat
	Fisheries and Oceans Canada	Protection of fish and fish habitat
<i>Migratory Birds Convention Act</i>	Environment Canada	Protection of migratory birds
<i>Species at Risk Act</i>	Environment Canada	Protection of terrestrial species designated as 'at risk'
	Fisheries and Oceans Canada	Protection of aquatic species designated as 'at risk'
<i>Navigable Waters Protection Act</i>	Transport Canada	Security of Canada's waters for navigation purposes
<i>Alberta Land Stewardship Act</i>	Alberta Sustainable Resource Development	Provides for the development of regional land use plans
<i>Alberta Wildlife Act</i>	Alberta Sustainable Resource Development	Protection of wildlife
<i>Forest and Prairie Protection Act</i>	Alberta Sustainable Resource Development	Protection and salvage of timber resources on public land
<i>Historical Resources Act</i>	Alberta Department of Culture and Community Spirit	Preservation of historic, archaeological and paleontological resources and sites
<i>Emergency Management Act</i>	Alberta Department of Municipal Affairs	Provides for the disbursement of disaster recovery assistance if the event meets the criteria outlined in Regulation 51/94
<i>Municipal Government Act</i>	Local Municipalities	Provides local municipalities with authority to regulate land use through land use plans, bylaws and development permits.



## G. Regulatory Review Process

The flow chart below is intended to show the interactions between the regulatory agencies that are signatories to this policy. It is not intended to illustrate the details of each departmental review process. Each department reviews the application for different components and anticipated impacts, and then issues authorizations based on their own regulatory mandates. However, communication between departments is expected to ensure a consistent and consensus-based decision.





**From:** Brett Boukall  
**Sent:** Monday, November 01, 2010 3:14 PM  
**To:** Kristina Norstrom  
**Cc:** Barb Maile; David Park; Terry Kosinski  
**Subject:** RE: BMP for Aggregate Projects

Kristina,  
Have you gone through the document in any depth? Quickly scanned and other than a blurb about wildlife, it focuses mainly on water and erosion protection. Where was it found? Is it available externally? Leaves a lot to be desired and I would guess that FWD has had little input at all!

**Brett Boukall**

Provincial Wildlife Habitat Specialist  
*Fish and Wildlife Division- Sustainable Resource Development*  
2nd Floor, 9920-108 St  
Edmonton, AB T5K-2M4  
Phone: 780-427-3029

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**From:** Kristina Norstrom  
**Sent:** Monday, November 01, 2010 3:06 PM  
**To:** Barb Maile; Danielle Cross; Traci Morgan  
**Cc:** Brett Boukall  
**Subject:** BMP for Aggregate Projects

Just happened to come across this today. It looks like it is hot off the press (although they reference ANHIC instead of what its called now).

<< File: BestMgmtPracticesUserManualAggregateOpOnPL-Oct28-2010.pdf >>

**Kristina Norstrom**

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Provincial Building, 4901-50th St.  
Athabasca, AB T9S 1E2  
Phone: 780 675 8229 Fax: 780 675 8165

Best Mgmt Practices User Manual is  
public document.

**From:** Gerry Haekel

**Sent:** Monday, November 01, 2010 8:09 PM

**To:** David Park

**Subject:** Re: BMP for Aggregate Projects

No we didn't discuss. The manual was up until now a draft prepared by a consultant, managed through Land's surface materials unit. This is the first I have seen it. It is a product as a result of (in part) recommendations from the auditor general. I don't think there is much JTIWG can influence except review and maybe recommend material for a future version.

Sent from Gerry Haekel's Blackberry

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**From:** David Park

**To:** Gerry Haekel

**Sent:** Mon Nov 01 16:05:28 2010

**Subject:** FW: BMP for Aggregate Projects

Gerry,

Did we talk about this BMP's document? I don't remember doing so, and can't honestly say I knew of it...seems like something that should have come to light in recent discussions...

Dave

Duplicate of email dated Nov. 1, 2010 3:06PM, removed as non-responsive.

From: Augustus Archampong  
Sent: Friday, November 19, 2010 8:40 AM  
To: Douglas Knight; Bruce Blue; Louise Brennan;  
'orr\_richard@hotmail.com'; Brock Rush; 'doliver@aamdc.com'; 'Olson,  
Tom'; David Park; Patricia Stevenson; Ryan Puhlmann; Robert George;  
Larry Kuchmak; 'kjohn@lehighcement.com'  
Cc: Chuck McMillan; Dana Becker; Gerry Haekel  
Subject: RE: Surface Water Body Aggregate Policy- Trans comments

Thanks for the comment Douglas,

Gerry is welcome to attend the meeting.

Cheers, Archie.

-----Original Message-----

From: Douglas Knight  
Sent: Thursday, November 18, 2010 4:34 PM  
To: Bruce Blue; Augustus Archampong; Louise Brennan; orr\_richard@hotmail.com;  
Brock Rush; doliver@aamdc.com; Olson, Tom; David Park; Patricia Stevenson; Ryan  
Puhlmann; Robert George; Larry Kuchmak; kjohn@lehighcement.com  
Cc: Chuck McMillan; Dana Becker; Gerry Haekel  
Subject: RE: Surface Water Body Aggregate Policy- Trans comments

I would have to concur with Bruce in that SRD continues to share  
Transportation's concerns about the requirement for a risk assessment for every  
application. I would also agree that this discussion around what might trigger a  
risk assessment or definitive guidelines should have happened earlier in the  
process.

If OK with the group I will ask Gerry Haekel from our riparian management unit  
to also attend.

Doug Knight  
Provincial Surface Materials Specialist  
780-422-5150 / 780-267-2002(c)  
douglas.knight@gov.ab.ca

-----Original Message-----

From: Bruce Blue  
Sent: Thursday, November 18, 2010 9:49 AM  
To: Augustus Archampong; Louise Brennan; 'orr\_richard@hotmail.com'; Brock Rush;  
'doliver@aamdc.com'; 'Olson, Tom'; David Park; Patricia Stevenson; Ryan  
Puhlmann; Robert George; Larry Kuchmak; Douglas Knight; 'kjohn@lehighcement.com'  
Cc: Chuck McMillan; Dana Becker  
Subject: RE: Surface Water Body Aggregate Policy- Trans comments

I have reviewed the draft documents provided and it does not appear to reflect  
any of the comments forwarded by our Department on September 22. Therefore I  
have attached those comments again and provided a red-lined version of how the  
changes could be incorporated in the documents. I suggest these versions be used  
at the meeting unless you wish to further refine our recommendations prior to  
the meeting.

Bruce Blue  
Alberta Transportation



-----Original Message-----

From: Augustus Archampong  
Sent: Tuesday, November 16, 2010 4:28 PM  
To: Louise Brennan; 'orr\_richard@hotmail.com'; Brock Rush; 'doliver@aamdc.com'; 'Olson, Tom'; David Park; Bruce Blue; Patricia Stevenson; Ryan Puhlmann; Robert George; Larry Kuchmak; Douglas Knight; 'kjohn@lehighcement.com'  
Subject: Surface Water Body Aggregate Policy

Hello team members,

Attached are the most recent drafts of the above policy. As you may notice the document has gone through several stages of metamorphosis - is now a three-part document instead of one. I received comments from some of you, some of which have already been addressed in the currant version of the drafts.

We received comment from some GoA departments, including AENV approvals staff and the Environmental Law section. I have been advised the AENV Minister has been briefed on the Policy; he likes the principles and would like the policy to be implemented soon. Meanwhile, I am sure you have had an opportunity to ruminate on the project and might have some LIMITED last minute comment/tweaks - this is your opportunity.

This is also your invitation to meet - one more time - review the policy drafts before proceeding to the implementation phase.

For those of you who may not be able to attend the meeting, please send an alternate rep. to ensure your comment is addressed. An action request on this initiative will be submitted to the AENV ADM on November 30, 2010.

Note: Coffee and Lunch to be provided.

Meeting Agenda:

Date:	November 26, 2010
Time:	10:00 am
Location:	Room 105, Twin Atria, Edmonton (Ask for directions at the Alberta Environment reception desk)
Call for any new agenda items:	10:00 to 10:15
Draft Policy Review & Addressing of any issues:	10:15 am to 12:00 noon (bio-break as required)
Lunch Break:	12:00 noon to 1:00 pm
Further review:	1:00 pm to 2:00 pm (bio-break as required)
Next steps forward:	2:00 pm to 3:00 pm (bio-break as required)

Cheers, Archie.

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail.



Deleted: AENV

### Section A: Policy Context

#### Purpose

- To develop GoA guidelines to support the regulatory approval processes for aggregate extraction operations in active and non-active areas of water bodies.

Deleted: (AENV in particular)

#### Policy Issue

- There is a need to clarify the position of the GOA on the management and regulation of existing and future aggregate extraction operations located within surface water bodies and adjacent floodplains so that existing, new, and undeveloped aggregate extraction operations are dealt with in a fair and consistent manner across the province.

Deleted: AENV

#### Explanation of Problem

- Aggregate extraction within the active and non-active areas of surface water bodies has occurred in the province for several decades. The ease of access to the aggregate and associated low development cost may have influence on this choice. Aggregate extraction is an important contributor to economic activity in Alberta.
- Aggregate extraction is a concern as the associated operations have been shown to have significant adverse effects on aquatic species and habitat, water quality, and the configuration of the bed, banks and shores of water bodies. Physical changes to a water body, as a result of extraction operations, have also been shown to have an adverse effect on adjacent lands and infrastructure upstream and downstream of the operation location.

Deleted: and floodplains

#### Background/Current State

- Aggregate extraction operations on public and private lands in Alberta are regulated under three provincial enactments: the *Water Act*, the *Public Lands Act*, and the *Environmental Protection and Enhancement Act*. These have separate and distinct regulatory processes that are not well integrated, which sometimes has led to differing approval terms, conditions and requirements.
- Aggregate extraction operations situated in or adjacent to water bodies must also meet federal regulatory requirements under the *Fisheries Act*, the *Navigable Waters Protection Act*, and possibly the *Canadian Environmental Assessment Act*. Meeting provincial standards and requirements does not ensure that federal regulatory requirements will be met.

**Comment [G1]:** Need to include a statement that reflects the Municipal Government Act (MGA) (note\* - AT is not bound by this act, but remains so for EPEA/WA.

**Comment [G2]:** It should be recognized that there can be triggers related to SARA or rare plants circumstances, federally, however this is also identified under the Code of Practice for PAs (COP) and needs to be addressed.

- In the past 10 years, DFO has declined issuing authorizations under the *Fisheries Act (Canada)* and AENV has declined issuing approvals under the *Water Act* for aggregate extraction related activities; potentially SRD may also exercise the option to decline issuing a mineral surface lease in support of SRD fisheries objectives.
- An activity that causes sediment transport in active areas of water bodies is considered an act of harmful alteration, destruction, disruption of fish habitat, and requires authorization under the *Fisheries Act*. DFO does not issue such authorizations for aggregate extraction on a routine basis, unless it is demonstrated that no reasonable upland source is available. Prior to issuing the authorization, the potential impacts of the project pursuant to the *Canadian Environmental Assessment Act* must be assessed. ~~Removed old reference?~~
- This approach is consistent with the objectives of SRD and AENV who are required to consider the protection of aquatic environment when issuing approvals.
- There is an increasing demand for aggregate resources. This demand is countered by public opposition to allowing aggregate extraction operations in water bodies.

**Comment [G3]:** Thought we agreed to remove this.

**Deleted:** If no reasonable upland source is available, DFO will consider an authorization provided that appropriate compensation is proposed and undertaken by the project proponent.

**Deleted:** (letter from DFO dated August 26, 1998)

#### Work to Date

- Numerous attempts have been made at a GoA waterbody Aggregate Extraction policy. Due to the number of parties involved, it has been difficult to obtain consensus. AENV has decided that it is time to take the lead on the development of GOAs interim position on Waterbody Aggregate Extractions until a GoA-Canada policy can be negotiated.
- The Joint Technical issues working group (JTIWG) has provided recommendations for aggregate extractions in the active area of water bodies. Their consensus is to not permit any extractions in any active area of any water body at any time. It is proposed that this be adopted by GOA. This position is supported by DFO (letter dated March 16, 1995, reference to Kanehl and Lyon 1992).
- DFO recommends against floodplain aggregate extraction in general until more substantive work on its effects can be completed. Until such time, DFO recommends we err on the side of caution and adopt a guideline that allows us to be more restrictive in sensitive areas yet is still flexible enough to allow extraction in areas of little or no concern (letter dated March 16, 1995, reference to Kanehl and Lyon 1992).

**Comment [G4]:** I have a note regarding these 3 bullets - consider modification and combining as there is repetition in this section.

**Deleted:** AENV's

**Deleted:** Committee

**Deleted:** AENV

**Comment [G5]:** Are we taking out "floodplain" definition or including at least in the back - similar to what Pat provided - "Overbank portion - the extent defined by the 100 year flood..."?

#### Drivers for Project and Key Decision Maker



- There is no formal provincial policy on aggregate extraction. The approach to aggregate extraction requires clarity, as requests from public are increasing and the GoA requires a consistent and fair course of action.
- In recent years there has been increased demand from some counties (Brazeau/Wetaskiwin) to extract aggregate from the active portion of river systems, due to shortfalls in their resource ownership and because of significant costs associated with buying privately. Additionally with rising development pressures, NIMBY and the desire of counties to develop consistent bylaws and areas structure plans, they have also requested GOA presence to discuss aggregate extraction, within and adjacent to waterbody systems.
- Clear and consistent guidelines for both new and existing aggregate extraction operations will ensure a higher level of protection for the environment.
- Key decision-makers: Alberta's Minister of ENV, Minister of SRD
  - For this interim AENV policy, the Minister of AENV would be the principal decision-maker

#### Relationship to Wider GoA Priorities

- *Land-Use Framework*
  - Strategy 1: Develop seven regional land-use plans based on seven new land-use regions.
    - Need to provide guidance to LUF regional plans as to where aggregate extraction may be acceptable.
    - Would enable 'place-based' responses to aggregate extraction approval applications, but provide a provincially consistent policy to determine whether or not it would be acceptable in the provincial policy and regulatory contexts.
  - Strategy 3: Cumulative effects management will be used at the regional level to manage the impacts of development on land, water, and air.
    - Need to have a consistent policy so that the cumulative effects of aggregate extraction are considered and managed.
  - Strategy 4: Develop a strategy for conservation and stewardship on private and public lands
    - Aggregate extraction policy would be applicable to public and private lands. Environmental impacts would be the primary focus of the risk assessments required for proponents to obtain approvals.
- *Water for Life Strategy*
  - Supports Healthy Aquatic Ecosystems outcome through the required risk assessments.
    - Action 2.1: Enforce protection of known critical aquatic ecosystems using existing legislation
    - Action 2.6: Implement aquatic restoration plan and conserve key aquatic ecosystems through regional land-use approaches and identified partnerships
- *Regulatory Alignment Project*
  - Would clarify the regulatory process for aggregate extraction operations, supporting the initiative of this project.

**Key Stakeholders**

- Proponents – mostly commercial users of aggregate, including Alberta Ministry of Transportation
- Municipalities – create bylaws with respect to aggregate extraction
- AENV – Approvals
  - Issues approvals under the *Water Act* for aggregate extraction
  - Approvals assess water quantity impacts, as well as potential water quality impacts for both surface and ground water
  - As part of the approvals process, the River Forecasting Section (formerly River Engineering) assesses impacts on river morphology
- AENV – EPEA
  - Identifies conservation and reclamation requirements
  - Administers Guide to the Code of Practice for Pits
- SRD –
  - Defines fisheries objectives
  - Delineates non-active areas of water bodies where extraction could be considered
  - Defines the acceptable periods of time for extraction activities (i.e. DFO letter dated March 16, 1995).
  - Reviews proponent’s approval application for effects on habitat
- DFO –
  - Reviews proponent’s authorization application for HADD of fish habitat
- Public – affected by environmental outcomes

**Consultation Plan**

Sector	When consultation should occur	Group needs/special requirements	Desired outcome of consultation	Appropriate methods of consultation
AENV	Immediately	Consider regions, River Forecasting, EPEA and WA approvals	Aggregate Extraction Policy	Meetings
SRD	Immediately	Require instructions from Minister of SRD to participate	Approval of proposed policy. Agreement to develop a ToR.	Meetings
DFO	Immediately		Acceptance of proposed policy. Agreement to develop a ToR.	Meetings
Municipal and Local Govts	Following approval of proposed policy. Before approval	Particularly Alberta Association of Municipal	Acceptance of proposed policy. Awareness of policy changes &	Focus groups



	of final policy.	Districts & Counties	understanding of required process.	
Proponents	Following approval of proposed policy. Before approval of final policy.	Particularly Alberta Sand & Gravel Association; Alberta Ministry of Transportation	Awareness of policy changes & understanding of required process.	Focus groups
Public	Following approval of proposed policy. Before approval of final policy.	Level of consultation should reflect level of policy and degree of changes	Awareness of policy changes.	Internet-based questionnaire
<u>First Nations</u>	<u>Following approval of proposed policy – consider “engagement” or “consultation” (See attached info)</u>	<u>First nations has the ability to have S&amp;G development adjacent to their reservations, however we also need to be cognizant of how to deal with proposed S&amp;G by FN involving Waterbodies.</u>	<u>Awareness of policy changes &amp; understanding of required process</u>	<u>Meetings – likely require presence of our FN advisors/consultation specialists.</u>

## Section B: Proposed Policy

### Vision and Outcomes

- To protect the integrity of fish habitat and minimize the impact to these habitats from aggregate extraction operations (DFO letter dated March 16, 1995, reference to Kanehl and Lyon 1992).
  - Aggregate extraction is permitted to occur only in areas where sediment transport would not adversely impact the environment or aquatic ecosystems
  - The GoA has a common and consistent approach to requests for waterbody aggregate extraction
  - The roles and responsibilities of regulators are clearly defined
- Suggest add another bullet that speaks to the preservation and maintenance of the “Natural river channel”, respecting water quality and downstream users. It is not entirely for fish reasons.

Deleted: players

Formatted: Bullets and Numbering

### Assumptions and Principles

- The Policy promotes a risk-based approach to aggregate extraction with consideration of all regulatory mandates.
- WB Aggregate extraction in any active area of a water body will have adverse impacts and would only be considered on a case-by-case emergency situation.
- Aggregate extraction in a non-active area of a water body is an important economic opportunity and should be permitted in certain circumstances
- Although locations acceptable for aggregate extraction may be defined in Regional Plans or municipal bylaws, all applications will be processed according to the guidance outlined in this policy.

Deleted: AENV

Comment [G6]: Need definition related to "flood" and/or "emergency situation" - does our flood forecasting or dam safety folks have terminology?

Deleted: too great to consider applications

#### Policy Intent

- New Aggregate Extraction Operations
  - For proposed operations located within the active area of a water body no approvals are permitted under any circumstances.
  - For proposed operations located within the non-active area of a water body approvals will only be considered when:
    - A risk assessment of the environmental and third-party impacts is completed by a qualified third party and is submitted with the approval application to AENV.
      - Any adverse effects on the land and/or aquatic environment (including but not limited to fisheries and wildlife resources, water quality, ground water and river dynamics) resulting from the aggregate extraction operations must be identified.
      - The proponent must demonstrate the ability to mitigate or compensate for the above effects in a manner acceptable to AENV.
      - The risk assessment must be consistent with requirements and guidance provided in the Guide to the Code of Practice for Pits
      - The assessment must include stabilizing the operations and reclaimed sites effectively to eliminate sediment transport to the active water body area.
      - Plans for storage of equipment, stockpiling and washing of gravel should be outlined in the risk assessment and will be considered individually based on risk to the land and/or aquatic environment.
    - All municipal bylaws and provincial and federal regulations, statutes, and policies have been met.
  - When a *Water Act* approval is obtained, conditions derived from the risk assessments must be written into the approval. Regional AENV compliance staff will be responsible for enforcement.
- Existing Aggregate Extraction Operations
  - Will be allowed to continue for the remaining term of the *Public Lands Act*, *Environmental Protection and Enhancement Act*, or *Water Act* approvals, subject to the requirements under the *Fisheries Act*, or a

Deleted: <#>A development permit has been received from the local government.¶

Deleted: (through the municipality)

Comment [G7]: Suggest we remove those portions that are already defined or clear via the current regulatory process, e.g. security, activities plans, reclamation plans, etc.

Deleted: <#>A security deposit to cover the full reclamation cost by a qualified third party is received.¶



maximum of 5 years as of the date of this policy. After this time, a renewal of an approval will be subject to similar classifications and requirements outlined for new aggregate operations.

- Undeveloped Aggregate Extraction Operations
  - Undeveloped aggregate extraction operations that have a *Public Lands Act* approval but no *Environmental Protection and Enhancement Act* or *Water Act* approvals will be considered a new operation and are subject to similar classifications and requirements.

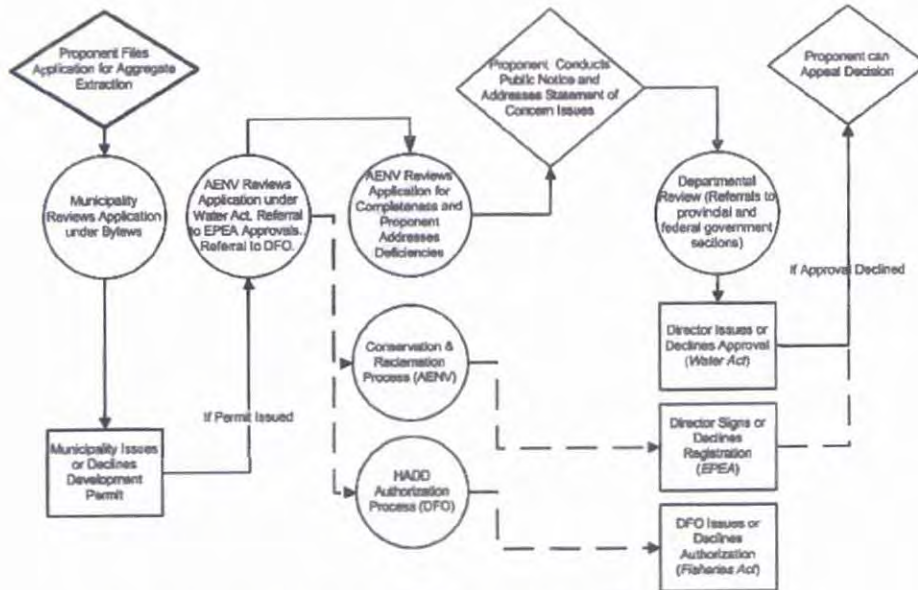
**Strategies and Actions/ Tools and Responsibilities**

Organization	Tools	Roles
Local Govt.	By-Laws Land zoning Development permits	Continue with existing programs; some fine tuning in land zoning may be desirable.
AENV	<i>Water Act</i> Approvals River Forecasting (outputs) Compliance programs	Regional Services will support policy through existing programs using existing approval review process
AENV	<i>EPEA</i> Conservation & Reclamation Regulation and Program CoP for Pits – Registration C&R Plan	C & R will support policy through existing programs, registration under the CoP, <u>normal administration of security</u>
SRD	<i>Public Lands Act</i> Fisheries objectives Fish & Wildlife objectives Mineral Surface Lease	Support with existing programs
DFO	<i>Fisheries Act</i> authorizations	Support with existing programs

**Deleted:** <=>Reclamation¶  
<#>Pit reclamation must be consistent with the Guide to the Code of Practices for Pits.¶

**Process Flow Chart**

**Comment [G8]:** Flow chart should reflect the potential administration and involvement of ASRD – Land Division in the regulation of gravel as well. I have attached a nice municipality regulation process information document (with some flow charts)



- Documents Required for Submission by Proponent:
  - Municipal development permit application
  - AENV *Water Act* approval application
    - Environmental and Third Party risk assessment
  - AENV *EPEA* Code of Practice for Pits registration form
    - Conservation & Reclamation Plan
  - DFO authorization application
- Recommend that the above applications and forms be integrated into a single 'Aggregate Extraction Application Package'

#### Implementation Plan

- Policy would be effective immediately following Ministerial approval.
- No legislative changes are required.
- Terms of Reference for joint review of risk assessments and applications among municipal, provincial and federal departments will be drafted immediately following approval of this policy. It is suggested a one-window approach for submission of approval applications be developed.

#### Monitoring and Evaluation Plan

- Adaptive management approach. Suggest policy review every 10 years, which is compatible with the Regional Planning process.

#### Working Definitions

- Active area of a water body: Area lying between the ordinary high water marks on each bank.



- Ordinary high water mark: The usual average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the "active area of a water body/bank-full level" which is often the 1:2 year flood flow return level.
- Non-active area of a water body: Any area of a water body that is not included in the definition of an active area.
- Water body (from the *Water Act*): Means any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a flood, and includes but is not limited to wetlands and aquifers but does not include except for clause (nn) and section 99 "water body" that is part of an irrigation works if the irrigation works is subject to a licence and the irrigation works is owned by the licensee, unless the regulations specify that the location is included in the definition of water body.

#### Attachments

- Diagram of active area of a water body and non-active area of a water body
- Map of areas where aggregate extraction in the non-active area of a water body would be considered and list of acceptable times of year (from SRD)
- Requirements for 'qualified third party' designation for completion of risk assessments and/or reclamation

## Terms of Reference

### Official Name

Aggregate Extraction Policy Committee????

### Members/Composition

1.	Alberta Sand & Gravel Association	Kevin John	role?
2.	AAMD&C	Dwight Oliver	
3.	DFO	Tom Olson	
4.	SRD – (Fisheries)	David Park	
5.	SRD – (Wildlife)		
6.	SRD – Public Lands)	Gerry Haekel	
7.	Alberta Transportation	Bruce Blue	
8.	AENV – Regional Services	Neil Hollands	
9.	AENV – River Engineering	Pat Stevenson	
10.	AENV – Groundwater Policy	Robert George	
11.	AENV – Regional	Larry Kuchmak	
12.	AENV – Water Policy Branch	A. Archampong	
13.	AENV – Reclamation Policy	Don Watson	
14.	AENV – Reclamation Approvals	Ryan Puhlmann	

### Term of Membership

1 – 2 years?

### Formation Details

- How – by appointment
- Why – stakeholder interest rep and Knowledge area rep
- When – now?
- Purpose – policy to determine where applications for aggregate approvals in non-active areas of water bodies may be accepted for review.
- Response to priority? – AENV Minister request, W4L – healthy aquatic ecosystem.

### Milestones

- Draft policy document completed – date?

### Goals

- Complete policy draft by September 2010.
- 

### Deliverables

- Draft aggregate extraction policy document



- Minister's Memo to Cabinet
- Input to consultation

### Jurisdiction

- Federal and provincial legislation
- Appropriate content of policy,
- Can decide on policy content but need senior management input
- Scope: Technical content and alignment with legislation.

### Resources and Budget

- Mostly within existing budget.
- Consultation cost?

### Governance

- Consensus
- 50 % of membership but if we must meet deadlines people present may need to proceed with the business at hand.
- Team reports to Senior management, deputy Minister,

### Communications

- Communication by phone, meetings, email, mailing lists etc. How quickly should people respond

### Relationships to other groups

- ?

### Related policies / By-laws

- Land Use Framework
- Water for Life strategy

Name	Representing	Phone Number	Email Address	Mailing Address
Kevin John	Alberta Sand & Gravel Association		kjohn@lehighcement.com	
Dwight Oliver	AAMD&C	(403)844 1503	doliver@aamdc.com	
Tom Olson	DFO	403 394-2915	Tom.Olson@dfc-mpo.gc.ca	704 4 <sup>th</sup> Avenue S, Room 204 Lethbridge, Alberta T1J 0N8
David Park	SRD (Fisheries)	(780) 427 8347	David.Park@gov.ab.ca	2nd Floor 9920 - 108 St. Great West Life Bld. Edmonton
???	SRD (Wildlife)			
Gerry Haekel	SRD (Public Lands)	(780) 427 4767	Gerry.Haekel@gov.ab.ca	3rd Floor, 9915 - 108 St. South Pet. Plaza Bld.
Bruce Blue	Alta Transportation	(780) 415 1389	Bruce.Blue@gov.ab.ca	Second Floor 4999 - 98 Avenue Twin Atria Bld.
Neil Hollands	AENV (Reg. Serv.)	(780) 960 8617	Neil.Hollands@gov.ab.ca	Main Floor 250 Diamond Avenue TELUS Bld.
Pat Stevenson	AENV River Eng	(780) 427 8349	Pat.Stevenson@gov.ab.ca	11th Floor 9820 - 106 Street Oxbridge Place
Brent Welsh	AENV (Reg. Serv.)	(780) 644 5112	Brent.Welsh@gov.ab.ca	Main Floor 4999 - 98 Avenue Twin Atria Bld.
Robert George	AENV (Grnd. Water)	(780) 644 1122	Robert.George@gov.ab.ca	7th Floor 9820 - 106 Street Oxbridge Place
Don Watson	AENV (Reclamation)	(780) 427 5553	Don.Watson@gov.ab.ca	10th Floor 9820 - 106 Street Oxbridge Place
Larry Kuchmak	AENV (Reg. Serv.)	(780) 427 6966	Larry.Kuchmak@gov.ab.ca	Main Floor 4999 - 98 Avenue Twin Atria Bld.
Augustus Archampong	AENV (SW Policy)	(780) 644 1123	Augustus.Archampong@gov.ab.ca	7th Floor 9820 - 106 Street Oxbridge Place
Stephen Yeung	AENV (Regional)	(780) 427 8270	Stephen.Yeung@gov.ab.ca	Main Floor 4999 - 98 Avenue Twin Atria Bld.
Ryan Puhlmann	AENV (EPEA)		Ryan.Puhlmann@gov.ab.ca	Main Fir 250 Diamond Avenue TELUS Building
Etc.				

Mailing List:

[kjohn@lehighcement.com](mailto:kjohn@lehighcement.com) [doliver@aamdc.com](mailto:doliver@aamdc.com) [Tom.Olson@dfc-mpo.gc.ca](mailto:Tom.Olson@dfc-mpo.gc.ca) [David.Park@gov.ab.ca](mailto:David.Park@gov.ab.ca) [Gerry.Haekel@gov.ab.ca](mailto:Gerry.Haekel@gov.ab.ca)  
[Bruce.Blue@gov.ab.ca](mailto:Bruce.Blue@gov.ab.ca) [Neil.Hollands@gov.ab.ca](mailto:Neil.Hollands@gov.ab.ca) [Pat.Stevenson@gov.ab.ca](mailto:Pat.Stevenson@gov.ab.ca) [Brent.Welsh@gov.ab.ca](mailto:Brent.Welsh@gov.ab.ca) [Don.Watson@gov.ab.ca](mailto:Don.Watson@gov.ab.ca)  
[Robert.George@gov.ab.ca](mailto:Robert.George@gov.ab.ca) [Larry.Kuchmak@gov.ab.ca](mailto:Larry.Kuchmak@gov.ab.ca) [Augustus.Archampong@gov.ab.ca](mailto:Augustus.Archampong@gov.ab.ca)



## Terry Kosinski

---

**From:** Travis Ripley  
**Sent:** Monday, November 22, 2010 9:36 AM  
**To:** David Christiansen; Dave Walty; \_SRD-FWD-FW Program Managers  
**Cc:** David Park; Brett Boukall  
**Subject:** RE: Emailing: Background Information\_20100805.doc, Consultation and Implementation Plans\_20100804.doc, Aggregate Extraction Policy\_v6\_20100804.doc

I've added a few thoughts on the sharepoint as well

Travis

-----Original Message-----

**From:** David Christiansen  
**Sent:** Friday, November 19, 2010 12:18 PM  
**To:** Dave Walty; \_SRD-FWD-FW Program Managers  
**Cc:** David Park; Brett Boukall  
**Subject:** RE: Emailing: Background Information\_20100805.doc, Consultation and Implementation Plans\_20100804.doc, Aggregate Extraction Policy\_v6\_20100804.doc

Dave and Dave:

Reviewed and the documents look pretty good to me.  
Have just included a couple of comments in the first two documents posted on the sharepoint.

Dave

-----Original Message-----

**From:** Dave Walty  
**Sent:** Friday, November 12, 2010 9:16 AM  
**To:** \_SRD-FWD-FW Program Managers  
**Cc:** David Park; Brett Boukall  
**Subject:** FW: Emailing: Background Information\_20100805.doc, Consultation and Implementation Plans\_20100804.doc, Aggregate Extraction Policy\_v6\_20100804.doc

Folks, comments on this policy are important, haven't heard anything except from Steve and Jeff (below). Web address to Mgrs. Team site is attached below. Documents are in top right hand window. Please copy comments to D.Park and me.

<https://srdinternal.gov.ab.ca/SiteDirectory/fw/programmanagers/default.aspx?RootFolder=%2fSiteDirectory%2ffw%2fprogrammanagers%2fDocuments%2fAggregate%20Extraction%20policy&FolderCTID=&View=%7b360827c7%2dDAA5%2d4B54%2dA1D5%2d6A4AAA515659%7d>

-----Original Message-----

**From:** Steve Bradbury  
**Sent:** Tuesday, November 09, 2010 11:42 AM  
**To:** Dave Walty  
**Cc:** David Park  
**Subject:** RE: Emailing: Background Information\_20100805.doc, Consultation and Implementation Plans\_20100804.doc, Aggregate Extraction Policy\_v6\_20100804.doc

Guys,

Comments from Foothills...

Dave Hobson:

In general, I approve of the policy that basically says no aggregate extraction within the active area of any surface water body. One question that comes to mind is 'does ephemeral or intermittent streams fall within the definition of an active area of a surface water body?'. If not, it should.

My main concern is with the requirement of the proponent to hire a 'qualified professional' to conduct a risk assessment for applications within the 'non-active areas'



of a surface water body (another case of requiring the fox to hire a consultant to assess and design the security of the chicken coop). The consultant not only is tasked with conducting the environmental impact assessment but also come up with the mitigative measures. Given that F&W has been providing the mitigative requirements, i.e. timing and buffer constraints, and that the EAP requires that for a standard application, what happens when the consultant (hired by the proponent) does not recommend these constraints? Have we lost the ability to review and provide conditions for gravel operations within the riparian zone?

Jeff Kneteman:

1) A set of objectives, standards and procedures ought to be developed as a structure for the "qualified professional" to work within. The intent is to direct proponents and "qualified professionals" to work within the policy (i.e. no aggregate extraction in active zones), rather than act as hired guns to pursue exceptions to, or alterations of the policy.

2) Ecological processes and biological characters will not be addressed, other than rare coincident, by the LUF strategy of working at regional scales. A hierarchical scalar approach is mandatory if ecology is to be a part of LUF. Ecology (emphasis in this case on ecological processes) and evolution determines biota and associated community and species composition, distribution, abundance and rates. Flat scalar approaches are a construct to facilitate simplistic and possibly ineffective ecological management. Land use authorizations predominately occur at fine scales rendering assessment of individual or a group of authorizations at the regional scale unlikely. Huge impacts would occur to most biota and processes before regional affects are documented. Conservation efforts would not be considered until the probability of persistence is low. However, regional scales may be useful at a broad scale to assist in allocation of land.

Mike Blackburn - Agreed with comments above.

If you need more info, let me know.  
Steve.

Duplicate of email dated Oct. 29, 2010, 3:30PM, removed as non-responsive.



From: Ryan Puhlmann  
Sent: Thursday, November 25, 2010 8:30 AM  
To: Augustus Archampong; Bruce Blue  
Cc: Chuck McMillan; Dana Becker; Louise Brennan;  
'orr\_richard@hotmail.com'; 'kjohn@lehighcement.com'; Douglas Knight;  
Larry Kuchmak; Robert George; Patricia Stevenson; David Park; 'Olson,  
Tom'; 'doliver@aamdc.com'; Brock Rush; Bruce Blue; 'Brock Helm'  
Subject: RE: Surface Water Body Aggregate Policy- Trans comments

Hello Archie:

I am comfortable with the current version of the drafts, however do recognize the challenges associated with the terminology surrounding "Risk assessment". I like the section (7) that elaborates on Risk Assessment Triggers that need to be developed, and the focus on buffers/proximity and BMPs. This is the next area of work to develop and support this policy. It is semantics, however much of the concern seems to come from the "perceived" or "implied" undertaking of a Risk Assessment and this is itself can be a very expensive and daunting process. A suggestion where possible may be to use language that softens or re-orders the words, such that there is an "assessment of risk" as opposed to the later. Again semantics, however given the complexity with process, public and municipal pressures, the added component of a risk assessment creates the image of financial burden and the question still surrounds surety in receiving authorization (I realize this is abt of a separate issue).

Our policies and direction should be clearly providing the direction needed, but as always we have to balance the impact and need of undertaking costly endeavours. In relation to the buffers/bmps, proximity area - we likely have the shortfall of not having all the hydrological information for many current or proposed development areas (flood risk/base flow mapping, etc), and this is an area of improvement that should align with LUF, known and planned aggregate extraction zones, and it is in industried best interest to partner and/or contribute wholly to these activities to reduce costs and be proactive in defining proximity/buffering from the active areas where we have concern.

I have a commitment this Friday and as provided, I will not be able to attend this session. I still remain very interested, engaged and willing to support remaining work as needed.

Please let me know if you have any additional comments or questions surrounding my comments or those flagged in the documents shared.

Ryan

Ryan Puhlmann, P.Ag., M.Sc., CCEP  
Reclamation Approvals Specialist  
Alberta Environment  
Suite #1, 250 Diamond Ave  
Spruce Grove, AB T7X 4C7  
(780) 960-8627  
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(780) 960-8605 fax

-----Original Message-----

From: Augustus Archampong  
Sent: Monday, November 22, 2010 3:39 PM  
To: Bruce Blue  
Cc: Chuck McMillan; Dana Becker; Louise Brennan; 'orr\_richard@hotmail.com'; 'kjohn@lehighcement.com'; Douglas Knight; Larry Kuchmak; Robert George; Ryan Puhlmann; Patricia Stevenson; David Park; 'Olson, Tom'; 'doliver@aamdc.com'; Brock Rush; Bruce Blue

Subject: RE: Surface Water Body Aggregate Policy- Trans comments

Thank you Bruce, for your November 16 email. The time crunch associated with the policy development left very little time for review team discussion meetings that might have provided the opportunity to address your concerns earlier. Your track-changes approach also takes the guesswork out of how you want the issues to be addressed. I believe the majority of review members will agree with your changes and, therefore, I have taken the chance to accept the majority of the changes. I hope this will save us time during the up-coming Friday meeting.

Review members, please print copies of these documents for the Friday meeting.

There are two areas in page 5, doc. 2 of 3 and page 5, doc. 1 of 3 that have been highlighted for further discussion.

Cheers, Archie.

Duplicate of email dated Nov.18, 2010 9:49AM & Nov. 16, 2010 4:28PM, removed as non-responsive.



## Terry Kosinski

---

**From:** David Park  
**Sent:** Wednesday, January 19, 2011 1:03 PM  
**To:** \_SRD-FWD-FW Program Managers  
**Cc:** Brett Boukall  
**Subject:** FW: Emailing: Aggregate Extraction Policy\_v9.doc, Background Information\_v9 (2).doc

**Attachments:** Aggregate Extraction Policy\_v9.doc; Background Information\_v9 (2).doc



Aggregate

xtraction Policy\_v9.doc



Background

1

An update regarding AENV's development of Aggregate Extraction policy...

The attached files represent AENV's latest version of the policy, submitted for Ministerial approval. To my knowledge, the next steps are oriented towards developing the implementation plan, in particular the process for assessing and mitigating environmental risk of aggregate mining activities beyond the active channel of watercourses (the "no-go zone").

Regards,

David Park

This communication is intended for the use of the recipient to which it is addressed, and may contain confidential, personal and or privileged information. Please contact us immediately if you are not the intended recipient of this communication, and do not copy, distribute, or take action relying on it. Any communication received in error, or subsequent reply, should be deleted or destroyed.

-----Original Message-----

**From:** Augustus Archampong  
**Sent:** Friday, December 03, 2010 10:58 AM  
**To:** Douglas Knight; Bruce Blue; Louise Brennan; 'orr\_richard@hotmail.com'; Brock Rush; 'doliver@aamdc.com'; 'Olson, Tom'; David Park; Patricia Stevenson; Ryan Puhlmann; Larry Kuchmak; 'kjohn@lehighcement.com'; Gerry Haekel  
**Cc:** John Taggart; Colin Blair  
**Subject:** Emailing: Aggregate Extraction Policy\_v9.doc, Background Information\_v9 (2).doc

Hello Team Members,

Here is the revised copy of the policy prepared after our Nov. 26 meeting. Thanks Louise, for incorporating the changes.

Before moving the document forward, I would like to thank all of the team members for the vigorous participation and contributions that has made this project possible.

The document refers to more work for the implementation phase and I will be calling again for your help.

I will continue to inform you of any future developments.

Once again thanks to all of you; good partnership, good work.

Cheers, Archie.

# **Surface Water Body Aggregate Policy**

**Document 2 of 2**

**Government of Alberta**

**November 2010**



## I. Endorsement

---

The following parties agree to implement the policy outlined below.

This policy is effective from the date of signature. Amendments may be made at any time by mutual consent and sign-off of the parties below.

### Signatures: Participating Organizations

#### Government of Alberta: Alberta Sustainable Resource Development

\_\_\_\_\_  
Hon. Mel Knight, Minister

\_\_\_\_\_  
Date

#### Government of Alberta: Alberta Environment

\_\_\_\_\_  
Hon. Rob Renner, Minister

\_\_\_\_\_  
Date

## II. Glossary

---

For the purposes of this policy, the following definitions have been adopted:

**Active channel:** An 'active channel', as defined in the *Water Act Code of Practice for Watercourse Crossings*, excluding wetlands.

**Aggregate:** Any sand, gravel, clay or marl that is excavated from a pit, whether in a processed or unprocessed form, but does not include *reject*.

**Emergency situation:** Any situation that may jeopardize human life or critical infrastructure and where aggregate removal is incidental to the activities required to alleviate that threat.

**Extraction:** Includes the stripping and stockpiling of soil, overburden, and aggregate materials and the transport of said materials within the site.

**Non-active area of a surface water body:** Any area of a surface water body that is not included in the active channel.

**Operations:** Include extraction and redistribution.

**Qualified professional:** Under this policy, Alberta Environment and Alberta Sustainable Resource Development recognize the following six professional regulatory organizations (PROs) whose members may have the scope of practice to conduct complete or partial risk assessments for proposed aggregate operations:

- Alberta Institute of Agrologists (AIA)
- Alberta Society of Professional Biologists (ASPB)
- Association of the Chemical Profession of Alberta (ACPA)
- Association of Professional Engineers and Geologists and Geophysicists of Alberta (APEGGA)
- College of Alberta Professional Foresters (CAPF)
- College of Alberta Professional Forest Technologists (CAPFT)

**Redistribution:** The movement of aggregate from one site to another for preventative, mitigative, or emergency purposes.

**Reject:** Aggregate that is expected to be unsuitable for use as a product, or for blending with other aggregate to form a product, and is therefore expected to be used for reclamation of the pit.

**Surface Water Body:** A Water Body, as defined in the *Water Act*, excluding wetlands.

**Water Body (*Water Act*):** Any location where water flows or is present, whether or not the flow or the presence of water is continuous, intermittent or occurs only during a



flood, and includes but is not limited to wetlands and aquifers but does not include except for clause (nn) and section 99 "water body" that is part of an irrigation works if the irrigation works is subject to a licence and the irrigation works is owned by the licensee, unless the regulations specify that the location is included in the definition of water body.

### **III. Surface Water Body Aggregate Extraction Policy**

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#### **A. Purpose**

Articulate GoA policy to support the provincial regulatory decision-making processes for proposed *aggregate* operations, including *extraction* and *redistribution*, in *active channels* and *non-active* areas of all surface *water bodies*.

#### **B. Authority**

This policy gives guidance to reviewing applications for authorizations to initiate aggregate operations under the *Public Lands Act*, the *Water Act*, and the *Environmental Protection and Enhancement Act*.

Although this policy is for aggregate operations within surface water bodies, excluding wetlands, impacts on aquifers and wetlands should be considered in a pre-assessment and/or formal risk assessment when applicable.

- In case of contradiction between this policy and any Act, Regulation, or Code, the Act, Regulation, or Code prevails.
- For aggregate extraction from aquifers, refer to Groundwater Evaluation Guidelines.
- For aggregate extraction from wetlands, refer to the Alberta Wetlands Policy.

This policy is only applicable to aggregate operations within surface water bodies.

#### **C. Assumptions and Principles**

1. Aggregate extraction in any active channel of a surface water body will have adverse environmental impacts.
2. Aggregate extraction in a non-active area of a surface water body may have adverse environmental impacts if not carried out responsibly.
3. This policy promotes a risk-based approach to aggregate operations in the non-active area and aggregate redistribution in the active channel of a surface water body.
4. Applications for authorizations to initiate aggregate operations within surface water bodies will be processed according to the guidance outlined in this policy, which considers the regulatory mandates of AENV and ASRD.

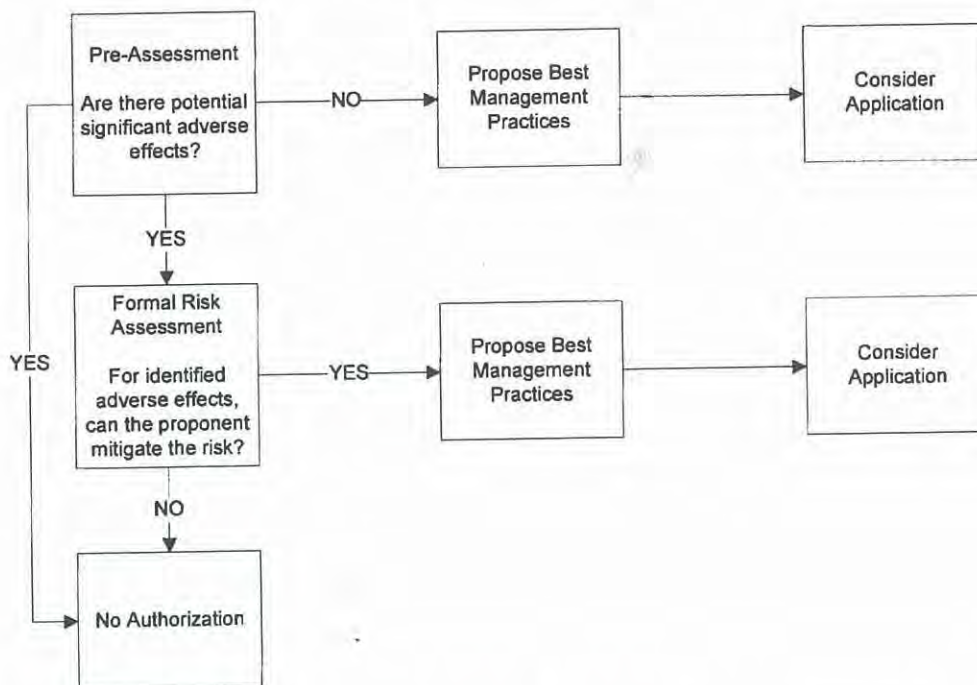
#### **D. Vision and Outcomes**

Surface water body aggregate operations are carried out responsibly to ensure the maintenance and protection of the natural morphology of water body systems, including aquifers and wetlands, the quality of water they contain, and the maintenance of aquatic and terrestrial habitat.

- Aggregate extraction from and relocation within surface water bodies is permitted to occur only in areas where it will not adversely impact the environment or aquatic ecosystems.
- The GoA has a common and consistent approach to applications for authorizations for aggregate operations within a surface water body
- The roles and responsibilities of regulators are clearly defined.

## E. Policy Guidelines for Aggregate Operations within Surface Water Bodies

### 1. Decision-Making Framework



Regulatory instruments commonly triggered by aggregate operations in surface water bodies are described in Section F and could be used as guidance when determining potential significant adverse effects. The list in Section F is not exhaustive; the responsibility to thoroughly assess each site remains with the proponent. Proponents of all aggregate extraction operations must ensure that all municipal bylaws, provincial and federal regulations, statutes, and policies will be met.

### 2. New Aggregate Operations

#### 2.1. Active Channel of a Surface Water Body

New aggregate operations proposed within the active channel of a surface water body will not be authorized by AENV or ASRD, with the possible limited exception of preventative and mitigative measures.



## **2.2. Non-active Area of a Surface Water Body**

New aggregate operations proposed within the non-active area of a surface water body will only be considered for authorizations when the proponent identifies and mitigates possible significant adverse effects as per the process in Section 1, Decision-Making Framework.

## **3. Existing Approved Aggregate Operations**

Existing approved aggregate operations will be allowed to continue for the remaining term of their *Public Lands Act*, *Environmental Protection and Enhancement Act*, or *Water Act* authorizations, subject to the requirements under the *Fisheries Act*. After this time, a renewal of an existing authorization will include a plan, where necessary, to bring the existing operation into compliance with the requirements outlined under this policy for new aggregate operations. This may include, but does not necessarily include, a risk assessment to address potential significant adverse effects.

## **4. Undeveloped Aggregate Operations**

Undeveloped aggregate operations that have a *Public Lands Act* authorization but no *Environmental Protection and Enhancement Act* or *Water Act* authorizations as of the effective date of this policy will be considered a new aggregate operation and are subject to this Policy as if they are "New Aggregate Operations". A risk assessment may be required to address potential significant adverse effects.

## **5. Emergency Situations**

In rare circumstances, measures to protect human life or critical infrastructure in emergency situations may require aggregate redistribution within surface water bodies as part of the emergency response. Aggregate extraction will not be permitted. The various regulatory authorities have appropriate regulations and procedures in place to address emergencies; the regulators should be contacted immediately. The proposed emergency work will be considered on a case-by-case basis.

## **6. Preventative & Mitigative Measures**

Occasionally municipalities and other agencies responsible for critical infrastructure may need to conduct activities to prevent or mitigate damage to critical infrastructure and avoid future emergency situations. In these circumstances, relocation of aggregate materials within the active channel may be considered when the procedure in Section 1, Decision-Making Framework, is followed. The proponent will be required to assess the effects that the proposed work will have on bank and channel stability, including upstream and downstream of the proposed operations.

## **7. Best Management Practices (BMPs)**

Where pre-assessment or formal risk assessment determines there will be no significant adverse effects, or that the effects can be adequately mitigated, BMPs must be implemented. BMPs are available in the following documents; all documents are as amended from time to time:



- Guide to the Code of Practice for Pits (AENV 2004)
- Environmental Protection Guidelines for Pits (AENV 1996, C&R/IL/96-5)
- Guidelines for Acquiring Surface Material Dispositions on Public Land (ASRD 2008)
- Best Management Practices User Manual for Aggregate Operators on Public Land (ASRD 2010)

## 8. Formal Risk Assessments

Formal risk assessments may be required when significant adverse effects are identified in the pre-assessment. When triggered, the formal risk assessment should include the strategies that will be employed to mitigate or compensate for those impacts, particularly for when existing or proposed BMPs are determined to be inadequate. The formal risk assessment must be completed by, or under the supervision of, a *qualified professional*.

The risk assessment may consider, but is not limited to, the following:

- Fish and wildlife, including aquatic species, terrestrial species, and species at risk
- Land, including vegetation and soils
- Hydrogeology and hydrology, including flood risk and base flow
- River engineering, including channel morphology and bank stability
- Water quality and impact on biota
- Wetlands
- *Water Act* and *EPEA* requirements and factors the Director must consider when making a decision

## F. Guidance on Common Regulatory Instruments

### 1. Applicable AENV & ASRD Regulations and Guidelines

The applicability of legislation is dependent upon the location of the desired aggregate and, particularly, whether it is associated with public or private lands and/or is near a water body or may influence a water body, including aquifers and wetlands. The primary legislative considerations for surface water body aggregate operations are listed below.

#### 1.1. *Public Lands Act* (ASRD)

The *PLA* pertains to the ownership and management of public land, including the beds and shores of watercourses and water bodies. The *PLA* also provides for the allocation of aggregate, royalties, access, and enforcement.

Regulations include:

- Disposition & Fees Regulation

Guidelines include:

- Guidelines for Acquiring Surface Material Dispositions on Public Land

Possible Operator Requirements:

- Surface materials exploration (SME) permit



- Surface materials lease (SML), licence (SMC), reservation, or public pit licence
- Licence of Occupation (LOC)
- Conservation and Reclamation Business Plan

### **1.2. *Environmental Protection and Enhancement Act (AENV)***

The *EPEA* pertains to environmental assessment, approvals, appeals, air and water emissions, conservation and reclamation, and enhancement. This legislation has application on all lands, private or public or water-related.

Regulations include:

- Activities Designation Regulation
- Approvals and Registrations Procedure Regulation
- Conservation and Reclamation Regulation, including Code of Practice for Pits

Guidelines include:

- Environmental Protection Guidelines for Pits (Conservation & Reclamation Information letter 96-95)

Possible Operator Requirements:

- Registration  
For private land pits with potential surface area disturbances exceeding five hectares (Class 1 Pits)
- Reclamation Certificate  
Includes Conservation & Reclamation Plan

### **1.3. *Water Act (AENV)***

The *WA* pertains to management, use, allocation and environmental protection in conjunction with activities that may influence water. Hence, washing operations, diversions, activities in floodplains and creation of water bodies are activities associated with aggregate operations that may require an authorization.

Regulations include:

- *Water (Ministerial) Regulation*

Possible Operator Requirements:

- Licence  
For diversion of water
- Approval  
For the establishment/operation of works in a water body

### **1.4. *Other Applicable Guidelines***

Aggregate operations must also comply with the following:

- Fish & Wildlife Objectives (ASRD)
- First Nations Consultation Policy (ASRD)
- Alberta First Nations Consultation (AENV)

## 1.5. Required Applications

The list below includes provincial regulatory authorizations and links to the respective application forms. These applications are always required for initiation of the provincial regulatory review process.

- ASRD *Public Lands Act* disposition  
<http://www.srd.alberta.ca/MapsFormsPublications/Forms/LandsForms/Default.aspx>
- AENV *Water Act* approval and/or licence  
<http://environment.alberta.ca/01189.html>
- AENV EPEA Code of Practice for Pits registration  
<http://environment.alberta.ca/01113.html>

Each Ministry will share applications with other agencies as required, within the constraints of the *Freedom of Information and Protection of Privacy Act (FOIP)*.

## 2. Potential Regulatory Requirements

Depending on the location and/or scope of the operation, proponents may also need to consider other regulatory requirements, which may include but are not necessarily limited to the following:

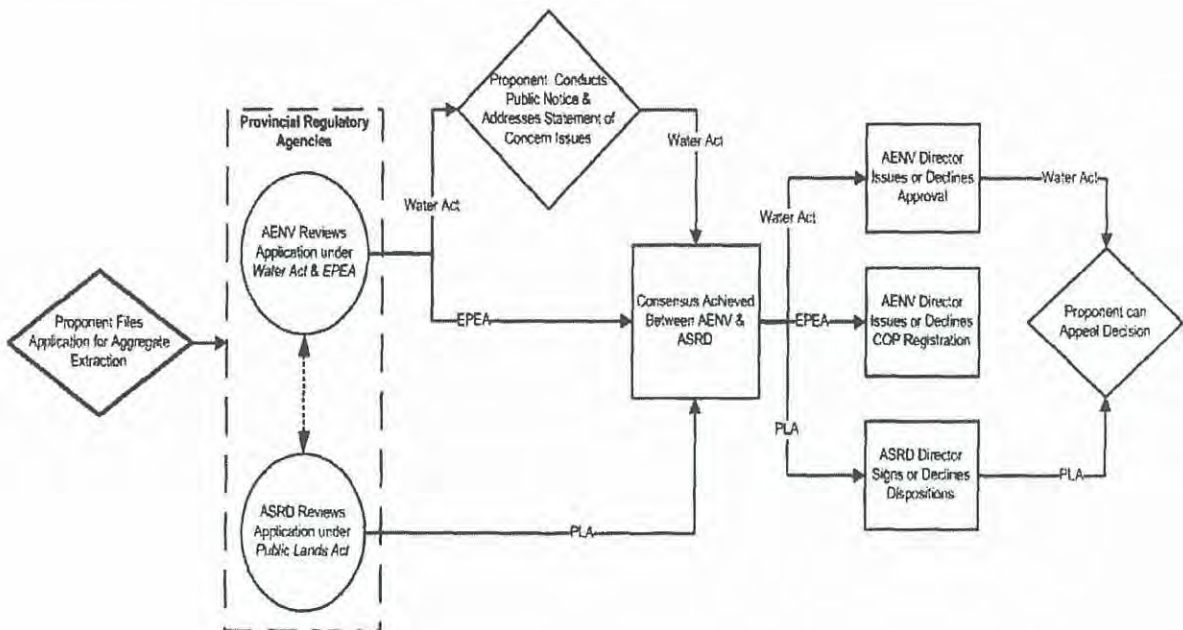
Legislation	Organization	Function
<i>Canadian Environmental Assessment Act</i>	Multi-agency (Federal)	Assessment of specified developments that may affect the environment
<i>Fisheries Act</i>	Environment Canada	Regulation of the release of deleterious substances (section 36(3)) for the purposes of protecting fish and fish habitat
	Fisheries and Oceans Canada	Protection of fish and fish habitat
<i>Migratory Birds Convention Act</i>	Environment Canada	Protection of migratory birds
<i>Species at Risk Act</i>	Environment Canada	Protection of terrestrial species designated as 'at risk'
	Fisheries and Oceans Canada	Protection of aquatic species designated as 'at risk'
<i>Navigable Waters Protection Act</i>	Transport Canada	Security of Canada's waters for navigation purposes
<i>Alberta Land Stewardship Act</i>	Alberta Sustainable Resource Development	Provides for the development of regional land use plans
<i>Alberta Wildlife Act</i>	Alberta Sustainable Resource Development	Protection of wildlife
<i>Forest and Prairie Protection Act</i>	Alberta Sustainable Resource Development	Protection and salvage of timber resources on public land
<i>Historical Resources Act</i>	Alberta Department of Culture and Community Spirit	Preservation of historic, archaeological and paleontological resources and sites
<i>Emergency Management Act</i>	Alberta Department of Municipal Affairs	Provides for the disbursement of disaster recovery assistance if the event meets the criteria outlined in



		Regulation 51/94
<i>Municipal Government Act</i>	Local Municipalities	Provides local municipalities with authority to regulate land use through land use plans, bylaws and development permits

### G. Regulatory Review Process

The flow chart below is intended to show the interactions between AENV and ASRD. It is not intended to illustrate the details of each departmental review process. Each department reviews the application for different components and anticipated impacts, and then issues authorizations based on their own regulatory mandates. However, communication between departments is expected to ensure a consistent and consensus-based decision.



**Background, Context, & Future Work**  
**Surface Water Body Aggregate Policy**  
**Document 1 of 2**

**Government of Alberta**  
**November 2010**



## List of Acronyms

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<b>AAMDC</b>	Alberta Association of Municipal Districts & Counties
<b>AENV</b>	Alberta Environment
<b>ASGA</b>	Alberta Sand and Gravel Association
<b>ASRD</b>	Alberta Sustainable Resource Development
<b>DFO</b>	Fisheries and Oceans Canada
<b>EPEA</b>	<i>Environmental Protection and Enhancement Act</i>
<b>GoA</b>	Government of Alberta
<b>HADD</b>	Harmful Alteration, Disruption, or Destruction
<b>JTIWG</b>	Joint Technical Issues Working Group
<b>LOC</b>	Licence of Occupation
<b>LUF</b>	Land-use Framework
<b>PLA</b>	<i>Public Lands Act</i>
<b>SMC</b>	Surface Materials Licence
<b>SME</b>	Surface Materials Exploration Permit
<b>SML</b>	Surface Materials Lease
<b>WA</b>	<i>Water Act</i>

## **A. Explanation of Problem & Drivers for Policy**

Aggregate operations, which includes extraction and redistribution, within the active and non-active areas of surface water bodies has occurred in the province for decades; the apparent ease of access to the aggregate may have influenced this choice. Aggregate operations are an important contributor to economic activity in Alberta and there is an increasing demand from local governments and industry to extract aggregate resources from surface water bodies for commercial purposes. Occasionally there may be demand from local governments to redistribute aggregate within surface water bodies as a preventative or mitigative measure, or in emergency situations.

This demand is often countered by public concern about allowing aggregate operations in surface water bodies, which is why authorizations have not been issued for the past ten years. Although this approach protected the aquatic environment, the public was not given any guidance as to where they can access aggregate resources.

Aggregate operations within the active channel of surface water bodies is a concern as the associated activities have been shown to have significant adverse effects on aquatic species and habitat, water quality, the configuration of the bed, banks and shores of water bodies, and riparian terrestrial habitat. Physical changes to a surface water body as a result of aggregate operations have also been shown to have an adverse effect on adjacent lands and infrastructure, both upstream and downstream of the operation location. Depending on proximity, aggregate operations in areas outside the active channel could have an effect on fish and fish habitat. Operational procedures and best management practices are required to mitigate such possible impacts.

There is no formal provincial policy on aggregate operations within a surface water body. A clear and consistent policy to guide review of applications for regulatory authorizations will provide greater clarity for proponents of aggregate operations. The approach adopted by this policy will lead to broader environmental protection.

## **B. Current Regulatory State**

### **1. Municipal**

The *Municipal Government Act* (Municipal Affairs) authorizes municipal governments to create bylaws, which may affect aggregate operations within surface water bodies.

### **2. Provincial**

Aggregate operations on public and private lands in Alberta are regulated under three provincial enactments: the *Water Act* (Alberta Environment), the *Public Lands Act* (Alberta Sustainable Resource Development), and the *Environmental Protection and Enhancement Act* (Alberta Environment). These have separate and distinct regulatory processes.



### **3. Federal**

Aggregate operations situated in the active and/or non-active areas of surface water bodies must also meet federal regulatory requirements under the *Fisheries Act*, the *Navigable Waters Protection Act*, and possibly the *Canadian Environmental Assessment Act* or the *Species at Risk Act*.

Any work or undertaking that causes the harmful alteration, disruption or destruction (HADD) of fish habitat is prohibited unless authorized under the federal *Fisheries Act*. DFO will review proposed works or undertakings using the Risk Management Framework as outlined in the *Practitioners Guide to the Risk Management Framework for DFO Habitat Management Staff*. DFO may choose NOT to issue an authorization where:

- the magnitude and duration of the HADD is unacceptable;
- the fish habitat affected is critical to the maintenance of fish populations;
- the works or undertakings would result in the deposit of a deleterious substance into fish bearing habitat;
- no acceptable compensation (to replace affected fish habitat) can be achieved.

If an authorization is required, the potential environmental effects of the project must also be assessed pursuant to the *Canadian Environmental Assessment Act*. If it is determined that 'no significant adverse environmental effects' will occur, a *Fisheries Act* authorization may be considered.

This approach is consistent with the objectives of ASRD, under the *Public Lands Act*, and AENV, under the *Water Act* and the *Environmental Protection and Enhancement Act*, who are required to consider the protection of the aquatic environment when issuing authorizations.

In the past 10 years, DFO has declined issuing authorizations in Alberta under the *Fisheries Act* (Canada) for extraction within the active channel of fish-bearing surface water bodies. AENV and ASRD similarly have not issued any provincial approvals.

### **4. Other Jurisdictions**

Aggregate extraction from the active area of surface water bodies "has been prohibited in the United Kingdom, Germany, France, The Netherlands, and Switzerland and is being reduced in rivers in Italy, Portugal, and New Zealand".

[Source: Kondolf, G.M (1997) Hungry water: effects of dams and gravel mining on river channels. *Environ. Manage.* 21:533-551. IN Meador and Layher (1998) Instream sand and gravel mining: Environmental issues and regulatory process in the United States. *Fisheries Habitat.* 23(11): 6-13.]

## **C. Relationship to GoA Strategic Policy**

### **1. Land-use Framework (LUF)**

The Surface Water Body Aggregate Policy:



- Provides guidance to LUF regional plans as to where aggregate operations within surface water bodies may be acceptable.
- Enables 'place-based' responses to regulatory applications for aggregate operations, but provides a provincially consistent policy to determine whether or not the operation would be acceptable in the provincial policy and regulatory contexts.
- Articulates a consistent policy so that the cumulative effects of aggregate operations are considered and managed.
- Is applicable to public and private lands.

Relevant LUF Strategies:

- Strategy 1: Develop seven regional land-use plans based on seven new land-use regions.
- Strategy 3: Cumulative effects management will be used at the regional level to manage the impacts of development on land, water, and air.
- Strategy 4: Develop a strategy for conservation and stewardship on private and public lands

## 2. Water for Life Strategy

The Surface Water Body Aggregate Policy:

- Supports the Healthy Aquatic Ecosystems outcome of the Water for Life Strategy.

Relevant Water for Life Action Plan items:

- Action 2.1: Enforce protection of known critical aquatic ecosystems using existing legislation
- Action 2.6: Implement aquatic restoration plan and conserve key aquatic ecosystems through regional land-use approaches and identified partnerships

## D. Work to Date

To date, no provincial policy for aggregate operations within surface water bodies has been developed, although several attempts have been made in the past. Recently, the Joint Technical Issues Working Group (JTIWG) has provided recommendations (March 31 2010) pertaining to aggregate extraction in the active area of surface water bodies. Their role is to facilitate consistent federal and provincial approaches to regulatory processes. The consensus of the JTIWG is to continue the moratorium on applications for commercial aggregate extraction projects within the active channel.

## E. Current Work

Alberta's Minister of Environment requested that a GoA policy be developed to transparently and consistently regulate at the provincial level aggregate operations within surface water bodies. AENV led the development of the GoA's position in partnership with ASRD. Terms of Reference were drafted and the parties indicated below were included in the development of the attached Surface Water Body Aggregate Policy (Document 2 of 2).



<b>Sector</b>	<b>Target audiences</b>	<b>Outcome of consultation</b>	<b>Methods of consultation</b>
AENV	Water Policy Branch; Regional Staff; River Forecasting; First Nations advisors; Legal Services	Surface Water body Aggregate Policy	Committee Representation; Meetings; Email requests for comments
ASRD	Fish & Wildlife Division; Lands Division	Surface Water body Aggregate Policy	Committee Representation; Meetings; Email requests for comments
Other GoA Ministries	Alberta Transportation	Awareness of policy changes & understanding of required process.	Committee Representation
Federal Regulatory Agencies	DFO	Ensure consistency with DFO legislation. Awareness of policy changes & understanding of required process.	Committee Representation
Municipal and Local Governments	AAMDC	Awareness of policy changes & understanding of required process.	Committee Representation
Other Proponents	ASGA	Awareness of policy changes & understanding of required process.	Committee Representation

## **F. Future Work Requirements**

- Develop pre-assessment requirements, risk assessment triggers, and best management practices. Consider content and format requirements.
- Develop a detailed process flow chart for proponents.
- Engage and educate stakeholders on the new Surface Water body Aggregate Policy, including internal staff, proponents, partners, and the public.
- Develop a Monitoring and Evaluation Plan for the Surface Water body Aggregate Policy.

Completion of these requirements will need substantial time and resources. Therefore it is recommended that a detailed implementation plan be developed as an inter-departmental (AENV & ASRD) priority so that resources can be allocated and committed to the completion of this project.

## Terry Kosinski

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**From:** Gerry Haekel  
**Sent:** Tuesday, January 25, 2011 9:46 AM  
**To:** Terry Kosinski; Augustus Archampong  
**Cc:** Colin Blair; David Park; Douglas Knight; Joanne Sweeney  
**Subject:** RE: Surface Water Body Aggregate Policy


I am not aware of any meeting being scheduled for implementation of this policy. In fact we have not seen anything come through our ADM's office yet in terms of sign-off.

Also, I am not available this week at all to meet.

Perhaps Archie could develop an outline of a proposed implementation plan that he could share before such a meeting is called. This would facilitate a more structured discussion.

Gerry Haekel, P.Biol.  
Head, Riparian Land Management & Water Boundaries Unit  
Land Management Branch, Lands Division  
Alberta Sustainable Resource Development  
3rd Floor, South Petroleum Plaza  
9915-108 Street  
Edmonton, AB T5K 2G8

 Ph: (780) 427-4767  
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 E-mail: [gerry.haekel@gov.ab.ca](mailto:gerry.haekel@gov.ab.ca)

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Duplicate of email dated Jan. 25, 2011 9:29AM, removed as non-responsive.



## Terry Kosinski

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**From:** Terry Kosinski  
**Sent:** Tuesday, January 25, 2011 3:27 PM  
**To:** Augustus Archampong  
**Cc:** Colin Blair; David Park; Gerry Haekel  
**Subject:** RE: Surface Water Body Aggregate Policy

**Importance:** High

Gerry indicated he couldn't make the meeting. Now its moved to the afternoon; a problem for me. Please find a time when we can all attend. Gerry had some good suggestions about materials being available for the meeting. Thanks.

Terry

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**From:** Augustus Archampong  
**Sent:** Tuesday, January 25, 2011 9:53 AM  
**To:** Terry Kosinski  
**Cc:** Colin Blair; David Park; Gerry Haekel  
**Subject:** RE: Surface Water Body Aggregate Policy

Thanks Terry, for the response. Will be glad to see Gerry at the meeting.

The meeting room will be Boardroom B 10th floor Oxbridge Place, Jan. 26, 1:30 to 2:30 pm.

Cheers, Archie.

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**From:** Terry Kosinski  
**Sent:** Tuesday, January 25, 2011 9:29 AM  
**To:** Augustus Archampong  
**Cc:** Colin Blair; David Park; Gerry Haekel  
**Subject:** RE: Surface Water Body Aggregate Policy  
**Importance:** High

Archie:

If the purpose of the meeting is to discuss preliminary steps for implementation of the policy, the meeting should include Public Lands as they will have a major role in implementing the policy...or in making sure SRD and AENV approaches are compatible. I've copied Gerry Haekel to see if he can attend the meeting.

On a more practical note. Both our Boardrooms here are booked for tomorrow morning. Do you have a meeting room available?

Terry

---

**From:** Augustus Archampong  
**Sent:** Friday, January 21, 2011 2:51 PM  
**To:** Terry Kosinski  
**Cc:** Colin Blair  
**Subject:** Surface Water Body Aggregate Policy

Terry, the purpose of the meeting is to discuss preliminary steps for implementation of the Surface Water Body Aggregate Policy.

**Terry Kosinski**

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**From:** Gerry Haekel  
**Sent:** Tuesday, January 25, 2011 8:30 PM  
**To:** Terry Kosinski; David Park  
**Cc:** Matt Besko  
**Subject:** Re: Scanned document - Surface Water Body Aggregate Policy

So far I am not aware of Lands receiving correspondence but I have asked our ADMs EA to check.

Would be nice to be formally acknowledged given how much work we put into this to make Archie look good.

Sent from Gerry Haekel's Blackberry

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**From:** Terry Kosinski  
**Sent:** Tuesday, January 25, 2011 05:28 PM  
**To:** David Park; Gerry Haekel  
**Cc:** Matt Besko  
**Subject:** FW: Scanned document - Surface Water Body Aggregate Policy

Look what I found.

Gerry - did Lands receive a copy directly from AENV as well?

Terry

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**From:** Sue Cotterill  
**Sent:** Tuesday, January 25, 2011 10:54 AM  
**To:** \_SRD-FWD-Directors  
**Subject:** FW: Scanned document - Surface Water Body Aggregate Policy

Fyi – please disregard if you have already received.

S

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**From:** Val Poirier  
**Sent:** Tuesday, January 25, 2011 10:12 AM  
**To:** Brent Schleppe; Bruce Cartwright; Dan Smith; Darcy Beach; Dennis Palkun; Jim Maitland; Murray Busch; Terry Zitnak  
**Cc:** Sue Cotterill  
**Subject:** Scanned document - Surface Water Body Aggregate Policy

Rick asked that I send you the attached.

Val

<<Surface Water Body Aggregate Policy.pdf>>



Val Poirier  
Assistant Deputy Minister's Office  
Fish and Wildlife Division  
11th Floor, Petroleum Plaza, South Tower  
9915 - 108 Street  
Edmonton, AB T5K 2G8  
Telephone: 780-427-6749  
Fax: 780-427-8884  
[Val.Poirier@gov.ab.ca](mailto:Val.Poirier@gov.ab.ca)

Memorandum

From: Ernie Hui  
Assistant Deputy Minister  
Policy

Our File Reference: AR 42742

Your File Reference:

To: Deryl Empson  
Acting Assistant Deputy Minister,  
Fish and Wildlife Division

Date: January 13, 2011

Subject: Surface Water Body Aggregate Policy

This is a follow up to your July 5, 2010 memo. I am advised that your staff collaborated with Alberta Environment to make this project an outstanding success. I am sure MLA Diana McQueen and officials of Brazeau County appreciate the good work done.

The multidisciplinary team, formed this April to work on this initiative couldn't have succeeded without the unique contributions of Sustainable Resources Development.

The policy committee has completed its task which sets out the roles and responsibilities of the participating organizations (Sustainable Resources Development and Alberta Environment), and establishes guidelines on where the extraction of aggregate from water bodies may be permitted in the province. Since the policy is of operational level nature, it does not need legislative review and I intend to proceed with its implementation immediately. The department has been without clear guidelines on this subject for over a decade.

I would appreciate your communicating to staff that the attached policy document is effective immediately. The Water Policy Branch of Alberta Environment will contact your staff to discuss the policy implementation plan.



Ernie Hui

c.c Bob Barraclough, Director, Water Policy, Environmental Assurance.

Enclosure Surface Water Body Aggregate Policy; Documents 1 & 2; November 2010

RECEIVED

JAN 20 2011

Alberta  
Freedom To Create. Spirit To Achieve.

Assistant Deputy Minister's Office  
Fish and Wildlife Division  
Sustainable Resource Development



**Background Information & Policy Context**

**Surface Water Body Aggregate Policy**

**Document 1 of 3**

**Government of Alberta**

**September 2010**

## List of Acronyms

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<b>AAMDC</b>	Alberta Association of Municipal Districts & Counties
<b>AENV</b>	Alberta Environment
<b>ASGA</b>	Alberta Sand and Gravel Association
<b>ASRD</b>	Alberta Sustainable Resource Development
<b>DFO</b>	Fisheries and Oceans Canada
<b>EPEA</b>	<i>Environmental Protection and Enhancement Act</i>
<b>GoA</b>	Government of Alberta
<b>HADD</b>	Harmful Alteration, Disruption, or Destruction
<b>JTIWG</b>	Joint Technical Issues Working Group
<b>LOC</b>	Licence of Occupation
<b>LUF</b>	Land-use Framework
<b>PLA</b>	<i>Public Lands Act</i>
<b>SMC</b>	Surface Materials Licence
<b>SME</b>	Surface Materials Exploration Permit
<b>SML</b>	Surface Materials Lease
<b>WA</b>	<i>Water Act</i>



## **A. Explanation of Problem & Drivers for Policy**

Aggregate extraction within the active and non-active areas of surface water bodies has occurred in the province for decades. The apparent ease of access to the aggregate may have influenced this choice. Aggregate extraction is an important contributor to economic activity in Alberta and there is an increasing demand from local governments and industry to extract aggregate resources from surface water bodies for commercial purposes.

Occasionally there may be demand from local governments to handle aggregate from surface water bodies as a preventative or mitigative measure, or in emergency situations. This demand is often countered by public concern about allowing aggregate extraction operations in surface water bodies, which is why authorizations have not been issued for the past ten years. Although this approach protected the aquatic environment, the public was not given any guidance as to where they can access aggregate resources.

Aggregate extraction in surface water bodies is a concern as the associated operations, in general, have been shown to have significant adverse effects on aquatic species and habitat, water quality, the configuration of the bed, banks and shores of water bodies, and riparian terrestrial habitat. Physical changes to a surface water body as a result of aggregate extraction operations have also been shown to have an adverse effect on adjacent lands and infrastructure, both upstream and downstream of the operation location.

There is no formal provincial policy on surface water body aggregate extraction. A clear and consistent policy to guide review of applications for regulatory authorizations will provide greater clarity for proponents of aggregate extraction operations. The strict approach adopted by this policy will lead to higher environmental protection.

## **B. Current Regulatory State**

### **1. Municipal**

The *Municipal Government Act* (Municipal Affairs) authorizes municipal governments to create bylaws, which may affect aggregate extraction from surface water bodies.

### **2. Provincial**

Aggregate extraction operations on public and private lands in Alberta are regulated under three provincial enactments: the *Water Act* (Alberta Environment), the *Public Lands Act* (Alberta Sustainable Resource Development), and the *Environmental Protection and Enhancement Act* (Alberta Environment). These have separate and distinct regulatory processes that are not always well integrated. Meeting provincial standards and requirements does not ensure that federal regulatory requirements will be met.