

INDEPENDENT ENVIRONMENTAL MONITORING AGENCY



A PUBLIC WATCHDOG FOR ENVIRONMENTAL MANAGEMENT AT EKATI DIAMOND MINE



2015-16

Annual Report

Technical Language

Emery Paquin Vice-Chairperson

Presentation Outline

Recommendations for 2015-16

Agency Activities

Waste Rock and Processed Kimberlite

Closure and Reclamation

Water and Fish

Air Quality

Wildlife

Jay Project Development

Regional Monitoring and Cumulative Effects

Traditional Knowledge and Community Engagement

Assessment of Regulators

Assessment of Dominion Diamond Ekati Corporation



Recommendations for 2015-16

Recommendation No. 1

DDEC develop a single, integrated Closure and Reclamation Plan for all components of the Ekati mine site.

Recommendation No. 2

DDEC increase the use of Traditional Knowledge in environmental monitoring and report on its usage.



Recommendations for 2015-16 (cont.)

Recommendation No. 3

DDEC document the implementation, successes and lessons learned from Traditional Knowledge studies and how it is incorporated into environmental monitoring.

Recommendation No. 4

DDEC establish permanent water quality monitoring further out into the north arm of Lac de Gras.



Agency Activities

Meetings and Visits

- Board, AGM and Implementation Committee meetings
- Water quality workshop
- Community visit in Behchoko
- On-site visits to Ekati mine

Reviews and Workshops

- Major effort towards Jay environmental assessment
- Significant reviews
 - Aquatic Response Framework
 - Caribou Road Mitigation Plan
 - Caribou Compensation Mitigation Workshop
 - Interim Closure and Reclamation Progress Report



Waste Rock and Processed Kimberlite

Highlights

- Permafrost in Panda/Koala/Beartooth WRSA being established
- Additional geotechnical studies initiated for Fox WRSA

Agency Assessment

- ✓ Ecological Risk Assessment of waste rock and coarse kimberlite rejects storage areas
- ✓ Continued seepage monitoring
- ✓ Initiation of Fox Pit thermal modeling
- X Lack of thermal monitoring for Misery waste rock and coarse kimberlite rejects storage areas



Closure and Reclamation

Highlights

- Significant changes to reclamation planning
- Reclamation of Old Camp and Koala underground

Agency Assessment

- ✓ Overall closure and reclamation performance has been good
- ✓ WLWB remains vigilant over reclamation planning and security
- ✓ Reclaiming unused areas continuing
- X Greater efforts needed to complete scheduled research tasks
- X No timeline for next Interim Closure and Reclamation Plan
- X Financial security held under Environmental Agreement insufficient



Water and Fish

Highlights

- Aquatic Response Framework (ARF) approved
- Lynx Lake drained and fished out

Agency Assessment

- ✓ Aquatic Effects Response Plan
- ✓ Parameter-specific response plans initiated under ARF
- ✓ AEMP Re-evaluation scheduled for 2016
- ✓ expanded monitoring of Lac de Gras North Arm
- X Limited use of Traditional Knowledge



Air Quality

Highlights

- Organics composter
- Change over to Partisol samplers
- Increasing trend in dustfall levels

Agency Assessment

- ✓ Improvement in overall air quality sampling methods and controls
- ✓ Trials begin using new dust suppressant
- ✓ Ambient triggers and action levels for NO₂, PM_{2.5} and TSP
- X Absence of ambient triggers and action levels for dustfall
- X Significant data loss continues



Wildlife

Highlights

- Enhanced waste management – 2challenging
- Number of wildlife interactions and mortalities reduced
- Caribou numbers lowest recorded
- Infrared motion sensor cameras deployed – Misery and Sable roads

Agency Assessment

- ✓ Wildlife Effects Monitoring Program
- X Delayed analysis of camera monitoring data
- X Concern over roadways acting as semi-permeable barriers to wildlife
- X Continued on-site observational decline of caribou



Jay Project Development

Highlights

- Mackenzie Valley Review Board conclusions:
 - Significant environmental impacts
 - Significant public concern
 - Impacts can be mitigated
- Agency focus: caribou, water and fish, air quality, waste rock
- Most Agency recommendations incorporated

Agency Assessment

- ✓ DDEC cooperative and responsive to inquiries
- ✓ Thorough and efficient environmental assessment process
- ✓ Final Measures reflective of input and discussion
- ✓ Innovative nature of some Measures and Suggestions



Regional Monitoring and Cumulative Effects

Highlights

- Caribou:
 - 'Zone of Influence' monitoring of caribou avoidance
 - Three-year funding to support Bathurst Caribou Range Plan
- Water Quality
 - Study on effectiveness of diamond mine water quality monitoring
 - Coppermine River watershed cumulative impacts



Traditional Knowledge and Community Engagement

Highlights

- DDEC continues to sponsor TK projects and programs

Agency Assessment

- ✓ Use of TK to inform building of waste rock piles
- ✓ Collaboration with youth on native seed collection
- X Limited use of TK in aquatic effects monitoring
- X Incorporation of TK into environmental management decisions
- ✓ Jay Project REA include measures for inclusion of TK



Assessment of Regulators

ENR	Detailed reviews of documents Limited progress on management plan for Bathurst caribou Environmental Agreement review process disappointing
INAC	Diminished role in environmental management
DFO	Narrowing scope and mandate
ECCC	Participation in regulatory processes improving
WLWB	Sound management of DDEC permits and licences
MVEIRB	Thorough and efficient Jay Project EA



Assessment of Dominion Diamond Ekati Corporation

Environmental Indicator	Agency Rating
Closure and Reclamation	Satisfactory
Financial Security	Unsatisfactory
Water and Aquatic Life	Satisfactory
Air Quality	Good
Wildlife	Satisfactory
Traditional Knowledge	Satisfactory



Questions

