



**DMI Public Advisory Committee –Education Plan & discussion interests (December 2017)**

**Focus:** “Operational scope” on-the-ground practices and activities, that generally have roots in science, government natural resource policy, and strategic long-range forest plans

*This list was compiled through feedback from PAC members to the PAC co-chair & DMI, and is not presented in any particular order of sequential priority.*

<b>General area of interest -topical theme</b>	<b>Perceived root values at interest (as revealed within the request)</b>	<b>Related DMI VOITs + Commitments of interest to PAC members (DMI DFMPs)</b>	<b>Potential speakers, presentors, expertise</b>
LiDAR mapping technology <b>Delivery March 2<sup>nd</sup>, 2016</b>	Understanding the technology for protection of water values (aquatic biota, hydrology conservation)	Indicator 33, 37 (+ also related to C6)	DMI staff, Dr. Barry White (Ab Gov WAM LiDAR program development)
Local operational uses of LiDAR mapping technology	Understanding connections of new technology <u>to DMI practices</u> in protection of water values (aquatic biota, hydrology conservation)		DMI staff



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Ecosystem-based management (effectiveness, monitoring forest practices & cumulative effects) Delivery May 25th, 2016  Field tour August 23, 2017	<ul style="list-style-type: none"> <li>• How DMI ecosystem based management approach is measured for efficacy &amp; success at the biotic or species-response level (e.g. biodiversity indices?)</li> <li>• Are long-term changes monitored for comparisons to undisturbed biodiversity nearby?</li> <li>• The roles of variable-retention legacies</li> </ul>	Indicators 6, 7, 9, 10, 12, 13, 37	<p><b>Lecture:</b> DMI staff, UofA (EMEND science program leads) Dr Ellen Macdonald, Dr Colin Bergeron</p> <p><b>Field tour:</b> DMI staff, UofA Dr. Ellen Macdonald, Dr. Colin Bergeron, grad-student researchers, NRCan Dr Jaime Pinzon</p>
Mountain Pine Beetle (local context) Delivered Nov 26, 2014	<ul style="list-style-type: none"> <li>• Species biology</li> <li>• Eastward infestation migration status</li> <li>• Up-date on current policy and regional strategy.</li> <li>• Clarify fire risk management strategy for dead stands on the landscape</li> </ul>	Indicators 22 + 7 Commitment C8	Conifer mills staff, ESRD Forest Health staff



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<p>Watercourse spatial buffers (logging proximity constraints)  <b>Delivery (3 meetings, 2015) starting April 29, June 17,</b>  <b>Sept 23 field tour</b></p>	<ul style="list-style-type: none"> <li>• How fisheries science (stream flow/volume, temperature, habitat state) informs the definition of current regulatory policy on watercourse buffer sizes (Alberta).</li> <li>• Understanding the intersection of science, fisheries management, forest management strategy targets, and operational ground rules (field distancing practices)</li> <li>• Landscape strategies in retention for watershed values consideration</li> <li>• Cumulative effect of natural disturbance and MPBeetle surge harvest on water values?</li> </ul>	<p>Indicator 7, 12, 30, 33, 34, 37</p>	<p>Alberta ESRD staff (Al Benson, Darren Fearon), Ab Innovates Dr. Brian Eaton, Alberta ESRD Senior Fisheries Biologist, DMI + sawmill woodlands staff</p>



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<p>Forest sustainability evidence reflected in:</p> <ul style="list-style-type: none"> <li>the characteristics of local 2<sup>nd</sup>-generation forests</li> <li>perceptions of excessive logging of mature forest in proximity of the mills</li> <li>recent clear-cutting in the region</li> </ul> <p><b>Delivery December, 2016</b></p>	<ul style="list-style-type: none"> <li>Understanding reforestation policy and practices</li> <li>Growth performance evidence in local regenerating trees.</li> <li>Transferring genetic properties from mature forests to new regeneration</li> <li>Clear-cutting vs ecosystem-based design (MPBeetle?)</li> <li>Cumulative effect of natural disturbance and MPBeetle surge harvest on ecosystem?</li> <li>Disproportionate spatial allocation of footprint impacts (near access or communities)</li> </ul>	<p>Indicator 6, 13, 17, 23, 44</p>	<p>DMI staff (silviculture, AAC development), Conifer mills staff, Alberta Gov Reforestation staff, Dr. Erin Fraser-Reid Senior Reforestation Specialist</p>
<p>Natural disturbance-based harvest design</p> <p><b>Delivery May 25th, 2016</b></p>	<p>Science rationale for connecting forest management to natural disturbance:</p> <ul style="list-style-type: none"> <li>wildfire as a destructive source of renewal</li> <li>distinctions between human harvest-design and wildfire (patterns, ecosystem response, resiliency)</li> <li>distinctions between stand-replacing fires, stand-altering fires (light burns)</li> <li>NW Alberta fire patterns &amp; tree-ring evidence</li> </ul>	<p>Indicators 6, 7</p>	<p>UofA (EMEND science program leads) Dr Ellen Macdonald, Dr Colin Bergeron (EMEND fire history)</p>



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Reforestation strategies (soils, regeneration properties) Delivery December, 2016	Alberta forest policy requirements & ecology considerations in new policy, Forest science connections: <ul style="list-style-type: none"> <li>• Forest soils properties &amp; soils biodiversity</li> <li>• Soil ecosystems resiliency</li> <li>• Understory plant communities (competition and interactive dependencies)</li> <li>• Rationale for scarification treatments &amp; options in conifer</li> <li>• Mixedwood forest regeneration strategies</li> <li>• Herbicide (a tool for mixedwood forests?)</li> </ul>	Indicator 17, 23, 24, 37, 44	DMI staff, Conifer mills staff, Alberta Gov Reforestation staff, Dr. Erin Fraser-Reid Senior Reforestation Specialist
Local fisheries; Arctic Grayling Delivery March 15, 2017	<ul style="list-style-type: none"> <li>• Local inventories on status</li> <li>• Historic trends on presence absence in northern Alberta</li> <li>• Accounting for effects of seasonality (Drought : Precipitation years)</li> <li>• Climate change impact assessments on fisheries?</li> </ul>		EAP Fisheries biologist staff, Alberta Conservation Association biologist staff



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Community sustainability Delivered Dec 2 <sup>nd</sup> , 2015 ( <i>Land Use Rationalization model overview –a tool of opportunity for northwest Alberta use / Silvacom-DMI-Tolko project</i> )	<ul style="list-style-type: none"> <li>• Benefits or returns to resource dependent communities</li> <li>• Alberta policy considerations</li> <li>• Mill business considerations</li> </ul>	Indicators 24, 25, 43, 44, 45	Silvacom + DMI woodlands staff (LU Rationalization Tool – social + economic + environmental layers)
Performance Delivered Feb 4 <sup>th</sup> , 2015 Delivered Sept 21 <sup>st</sup> , 2016	<ul style="list-style-type: none"> <li>• Industry performance in various pre-defined management plan target areas (VOITs, commitments)</li> </ul>	All VOITs and Commitments (sample set)	DMI staff sharing Stewardship Report outcomes
<b>Other locally relevant projects</b> (timely, new information-share topics):			
Forest Recreation Delivery March 15, 2017	<ul style="list-style-type: none"> <li>• regional trails network initiative</li> <li>• forest multiple-use benefits</li> <li>• continued access to landscape</li> </ul>	Indicators: 20, 24, 42	Peace Valley Snow Riders director(s) –Dwayne Buchholtz
Boreal Research Institute (NAIT)	<ul style="list-style-type: none"> <li>• Boreal Education Program-20yrs local north partnership,</li> <li>• Reclamation-science programs</li> <li>• NW AB greenhouse technology</li> </ul>	Indicators: 16, 24	BRI—NAIT academic staff team



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Grizzly Bear	<ul style="list-style-type: none"> <li>Chinchaga-Clearhills research + citizen-science innovations,</li> <li>Alberta GBear recovery (local collaboration initiative)</li> <li>Alberta Recovery Plan</li> <li>Alberta BearSmart initiatives</li> </ul>	Indicators: 6, 9, 10, 12, 13, 14, 15, 21, 38, C6 (future)	EAP biologist staff, fRI Research team, UofA Dr Scott Nielsen, EAP grizzly recovery Edm lead
Woodland Caribou <i>Delivery June 7, 2017</i>	<ul style="list-style-type: none"> <li>Chinchaga-Clearhills ecology,</li> <li>Research</li> <li>local range assessment</li> <li>Alberta recovery planning</li> </ul>	Indicators: 6, 9, 10, 13, 14, 15, 21, C6	EAP biologist staff, EAP caribou recovery Edm lead, DMI team
Satellite Chipper yard tour	<ul style="list-style-type: none"> <li>Understand process and gained efficiencies through use of satellite yard</li> </ul>		DMI team
	<ul style="list-style-type: none"> <li></li> </ul>		