Collaborations in Environmental Management: Alberta-Pacific & the ABMI

Elston Dzus
Overview

- Al-Pac

- Ecosystem-based management:
  - stand & landscape

- ABMI & Al-Pac:
  - Regional monitoring
  - Effectiveness monitoring
  - Value-added
• Producer of pulp / power / methanol
• ~7 million ha
• ~28% merchantable forest
• 10% of Alberta landbase
• Forest is FSC® certified
Ecosystem-based Management

• **Natural Disturbance Model**
  - Wildfire
  - Variability is key
    • In space & time

• **Key Assumptions**
  - Biodiversity
From Landscape to Stand, Every Harvest Area Looks Different
Convergence ??

{ Poor Match }

{ Better Match ?? }

{ Good Match ??? }

Post-Fire

Post-Harvest
Historical Perspectives
Regional Monitoring
Effectiveness Monitoring - AlPac

- During 2009 & 10 started developing the “math” to highlight ecological status at a site

- ABMI info ideally suited to do these analyses
  - community info for birds, plants, moss, lichens, inverts

- Al-Pac & ABMI recognized the potential to use site-level analyses to assess recovery of harvest areas
Complements Regional Assessment

The status of biodiversity in Alberta-Pacific Forest Industries’ Forest Management Agreement Area

Preliminary Assessment 2000

Birds

Plants

Habitats
Effectiveness Monitoring & Collaboration

- compare diversity for fire vs harvest at varying ages
- birds, plants, habitat structure
- ABMI collaboration / protocols
- Huggard et al. 2014 Can J For Res

<table>
<thead>
<tr>
<th>Treatment</th>
<th># Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 yr fire</td>
<td>2</td>
</tr>
<tr>
<td>15 yr fire</td>
<td>8</td>
</tr>
<tr>
<td>15 yr harvest</td>
<td>31</td>
</tr>
<tr>
<td>20-40 yr fire</td>
<td>6</td>
</tr>
<tr>
<td>&gt;40 yr fire</td>
<td>28</td>
</tr>
</tbody>
</table>
Convergence ??

\{ \text{Poor Match} \} \quad \{ \text{Better Match} \} \quad \{ \text{Match} \} \quad \{ \text{Good Match} \}

Post-Fire

\{ \text{Post-Harvest} \}

\begin{align*}
\text{2} & \quad 15 \\
\text{15} & \quad 60 \\
\text{30} & \quad >125 \\
\text{60} & \quad >125
\end{align*}
Al-Pac’s 1995-1997 aspen harvest areas after 15 years were similar to at least 15yr fires, and most similar to 20-40yr fires or older aspen stands.
Value-added

• FSC® Certification
  - HCV analysis / monitoring
  - Human footprint
    • Core area assessment
    • Regrowth on seismic

• Planning
  - ABMI species coefficients

• Conservation area analysis
Al-Pac support for the ABMI

- Credible
- Independent third-party
- Consistent across the Province
  - Long term and wide-spread
- Leveraging of funds / Cost effective
- System efficiencies
- Will meet most (but likely not all) biodiversity monitoring requirements
Questions?