

WE NEED THE NEEDLES: An Implementation Strategy to Coordinate Action and Conserve 5-Needle Pine Forests in the Crown of the Continent

May 24, 2016



SUMMARY

The “We Need the Needles: Coordinating Action to Conserve 5-Needle Pine in the Crown of the Continent” workshop was held at the Crown Managers Partnership 16th Annual Forum in Fernie, British Columbia from May 15-17, 2016. This workshop was the fourth in a series of workshops organized by the Crown Adaptation Partnership (CAP), and was co-sponsored by the Whitebark Pine Ecosystem Foundation (U.S.) and the Whitebark Pine Ecosystem Foundation of Canada.

Eighty-seven people participated in the workshop, representing 43 different federal, provincial, state, municipal, tribal and First Nation governments, as well as conservation organizations, universities, industry and communities. The workshop focused on four objectives:

- Deliver best available science and data products on the climate adaptation strategies and tactics necessary to maintain 5-needle pine in the CCE in an era of rapid climate change;
- Discuss existing challenges and/or barriers that may be impeding 5-needle pine restoration, and develop recommendations to address these issues;
- Catalyze a formal CCE-wide working group whose purpose is to promote the long-term viability of 5-needle pines in the CCE by sharing information, leveraging capacity and resources, and promoting 5-needle pine protection and restoration; and
- Initiate a process to develop a CCE-wide 5-needle pine restoration strategy that identifies and prioritizes the type, amount and location of restoration activities, protection measures and monitoring that are necessary to restore 5-needle pine in the CCE.

A final workshop report, as well as all workshop presentations, are available for viewing at <http://crownmanagers.org/2016-forum/>.

Through skilled facilitation, earnest discussion, and much shared passion, workshop participants identified a set of **seven consensus-based workshop outcomes** that, if implemented, will significantly enhance the likelihood of five-needle pine persistence in the Crown of the Continent landscape. The Crown Adaptation Partnership will provide support to workshop participants and other interested individuals to advance implementation of workshop outcomes.

This Implementation Strategy provides a workplan identifying the seven workshop outcome objectives, proposes timelines for implementation, and identifies the individuals who have volunteered to work in sub-committees to complete each outcome. At the end of the document, a proposed budget has been developed to identify funding needs and contributions by organizations to achieve the workshop outcomes.

OUTCOME #1: CATALYZE A FORMAL “HIGH-FIVE” CROWN-WIDE WORKING GROUP

WHY: Workshop participants agreed to work towards the development of a formal “High-Five” Crown-wide working group, that would function as a sub-committee of the Crown Managers Partnership. The purpose of the working group would be to advance our collective effort to effectively prioritize, monitor, conserve, and restore five-needle pine in the Crown of the Continent. The working group would house the various “task forces” that will deliver on other workshop outcomes, including the delivery of a Crown-wide monitoring database and network, the development of a Crown-wide restoration strategy and action plan, etc. The working group should set up a governance structure that is approved by agency leadership, and is capable of enabling delivery of all identified outcomes (including, if identified, the ability to pool funding and/or resources across jurisdictions). The working group should include all jurisdictions and stakeholders, and should weave cultural, ecological, economic and political factors together from the start.

WHAT: An small “Founding Committee” should work to accomplish the following tasks by September 15th, 2016:

- Convene an initial Executive Committee meeting by June, 2016 to get started;
- Create an inventory list of all jurisdictions/stakeholders that should be included, and gauge their ability to commit (or what they need in order to commit) to participating in a working group
- Create a survey to send to inventoried groups (above) to determine most important functions/structure of a formal working group;
- Draft a working group governance structure and charter;
- Create an information sharing platform on a website (CMP or WBEF?).

WHEN: At the Whitebark Pine Ecosystem Foundation Conference in Kalispell, September 15, 2016, convene a first meeting of the full High-Five Crown-wide working group to approve the governance structure and charter, and to discuss the delivery status of other workshop outcomes.

WHO: The following individuals are potential Executive Committee members:

- Melissa Jenkins, Flathead National Forest (Lead)
- Brad Jones, Alberta Environment & Parks
- Ken Reed, Bureau of Land Management
- Randy Moody, Independent
- Dawn LaFleur, Glacier National Park
- Ali Burton, Ktunaxa Nation
- Amanda Hendrix, US Fish and Wildlife Service
- Roian Matt, Confederated Salish and Kootenai Tribes
- Warn Franklin, Teck Resources
- Erin Sexton, Crown Managers Partnership
- Diana Tomback, Whitebark Pine Ecosystem Foundation
- CanFor representative

OUTCOME #2: DEVELOP A MITIGATION STRATEGY AND BEST MANAGEMENT PRACTICES TO AVOID DEGRADATION OR LOSS OF FIVE-NEEDLE PINE

WHY: While five-needle pine is not targeted for harvest, industrial development does lead to the loss and degradation of whitebark and limber pine. Where mitigation is required, it is typically done ‘on-site’ of the industrial footprint, which may or may not be the most effective way to mitigate for impact. Workshop participants expressed an interest in developing a unified mitigation strategy that could direct mitigation activities to the areas where they could be most effective, even if this was ‘off-site’ from the permitted activity. Workshop participants also discussed the need to develop detailed scientifically-based best management practices when working in areas where 5NP is present. Workshop participants also discussed in great length how to ensure the new WBP Critical Habitat rule leads to effective conservation and mitigation of WBP. One idea raised was the development of a training webinar aimed at industry and permit reviewers to explain the obligations of the critical habitat rule to support effective compliance.

WHAT: Workshop participants expressed an interest in executing three discrete tasks:

1. Develop a 5NP Mitigation Strategy that would a) develop appropriate mitigation measures, b) identify best opportunities for ‘off-site’ mitigation, and b) explore mechanisms and avenues (e.g. a mitigation bank) to enable effective mitigation at multiple scales.
 - a. Review existing mitigation schemes, including the draft mitigation strategy that Jodie Krakowski has drafted for Alberta.
2. Identify detailed “Best Management Practices” for operations carried out in 5NP forests to most effectively avoid loss and degradation. These BMPs would be sent to Environment Canada for incorporation into the forthcoming WBP Critical Habitat rule.
3. Develop a training webinar for permit reviewers on 5NP that can live on-line (perhaps on WBEF website) that explains the obligations of the critical habitat rule, how to identify “terminal” WBP stands, and other topics to ensure 5NP is consistently conserved and restored under all permit operations.

In addition, Environment Canada committed to identifying legislative gaps and pursuing mechanisms to fill those gaps as related to implementation of the WBP Critical Habitat rule (e.g. two issues raised included Alberta’s Wildlife Act current lack of regulations related to plants, and BC’s lack of legal protection for whitebark pine).

WHO: The following individuals committed to working initially to catalyze action on the three tasks identified above by holding an initial planning meeting in spring/summer of 2016:

- Randy Moody (Lead)
- Jodie Krakowski, Alberta
- Michael Murray, BC Forest Service
- Kella Sadler, Environment Canada
- Kari Stuart-Smith, Canfor
- Warn Franklin, Teck
- Alison Burton, Ktunaxa
- Joanne Vinnedge

OUTCOME #3: LAUNCH A CCE-WIDE MONITORING AND INVENTORY DATABASE

WHY: A clear and detailed understanding of where whitebark pine and limber pine occur across the Crown, as well as their condition (tracked through time), is crucial to inform an effective landscape-scale restoration action plan. Currently, this knowledge is fragmented: some jurisdictions have good occurrence and condition data, and some, including private lands, have nearly none at all. Data is better for whitebark, but very limited for low-elevation limber pine. Workshop participants agreed that a CCE-wide common database of stand-level occurrence was necessary to inform a CCE-wide restoration strategy. Participants also expressed a desire for an information hub that could house the following types of information: case studies of restoration successes, failures, effectiveness levels and lessons learned; best management practices for operating in 5NP; standard inventory and mapping protocols; and results of CCE-wide mapping products. Participants also discussed the importance of expanding the footprint of long-term monitoring across the landscape, and to focus on the collection of absence data if that is truly important.

WHAT: A committee, including 5NP experts, decision makers and managers, should be convened by summer of 2016 to identify the following:

1. What the driving management questions, and what data needs to be collected to effectively answer those questions?
2. What data are agencies/organizations currently collecting? Where/how is this data currently stored?
3. What are the opportunities/needs to design a centralized database (either a single database, or a networked database). Where could such a centralized database and information hub be hosted, designed and accessed?

WHO: The following individuals expressed an interest in working on this committee:

- Shawn McKinney (lead)
- Cyndi Smith
- Mike Durglo, CSKT
- Dave Hanna, The Nature Conservancy
- Joyce Gould, Alberta Parks
- Shannon Blackadder, CMP
- Rob Sissons, Parks Canada
- Greg Denitto, USFS
- Michael Murray, BC

WHEN: Workshop participants discussed convening this subcommittee in summer of 2016, with the goal of launching a centralized database/information hub by March of 2017.

OUTCOME #4: DRAFT (AND IMPLEMENT) A CROWN-WIDE RECOVERY PLAN

WHY: Whitebark and limber pine are in peril, and securing these species ability to persist across the Crown (and throughout their range) will require a concentrated and coordinated set of restoration actions. Workshop participants expressed a desire for a Crown-wide Recovery Plan that would address the following:

- prioritize areas for conservation and restoration (and link to Outcome #2 – the mitigation strategy),
- incorporate clear guidelines for restoration where applicable (e.g. see Outcome #5, guidelines for working in wilderness/reserves; and Outcome #6, guidelines for fire),
- identify mechanisms for sharing resources (including people/teams, contracts for work, funds, seeds, and seedlings),
- identify opportunities for new funding (e.g. through foundations/partnerships with NGOs, etc)
- and ensure the strategy fit into broader scale restoration priorities beyond the Crown.

Participants noted that other regions (the Greater Yellowstone, the PNW) also have region-wide restoration plans that are aligned with the Whitebark Pine Range-wide Restoration Strategy, which provide a strong template from which a CCE-wide recovery plan can be built.

WHAT: Workshop participants identified three sets of tasks that are necessary to initiate a Crown-wide Recovery Plan:

1. Formal support to participate in the development (and presumably implementation) of the Recovery Plan needs to be secured from participating jurisdictions;
2. A workshop is needed to identify the structure and substance of a recovery plan.
 1. First, agencies/organizations should be inventoried to determine their existing program status (plus trees, planting, propagation, resources, successes, challenges)
 2. Second, a landscape-scale analysis needs to be done to identify synergies, efficiencies, gaps, opportunities for collaboration, and interim priorities. The restoration strategy should have annual or bi-annual work plans.

WHEN: A conference call among self-identified committee members should be convened by summer 2016 to introduce the concept and determine how to execute this activity.

WHO: The following individuals volunteered to sit on the Crown-wide Recovery Plan committee:

- Michael Murray, BC (Lead)
- Melissa Jenkins, Flathead NF
- Rebecca Lawrence, GNP
- Rob Sissons (Co-lead), Waterton Lakes
- Bob Keane, RMRS
- Brad Jones, AB E&P
- Kari Stuart-Smith, Canfor
- Bureau of Land Management
- Taylor White, nurseries
- Need tribal participation (Roian Matt?)
- Diana Tomback, WPEF

OUTCOME #5: DEVELOP RECOMMENDATIONS FOR 5NP RESTORATION IN HIGHLY PROTECTED AREAS

WHY: A large amount of whitebark pine occurs in highly protected areas (in the U.S., approximately 50% of whitebark pine occurs in designated Wilderness areas). The protection level afforded to these areas can discourage or even prohibit certain restoration activities. Workshop participants discussed whether there might be recommendations developed to help protected areas managers and decision makers thoughtfully address restoration of five needle pine forests in highly protected areas.

WHAT: Workshop participants expressed an interest in convening a conference call among protected areas managers, Tribal wilderness managers, and interested stakeholders to develop some recommendations that explicitly acknowledge the benefits and drawbacks of managing highly protected five-needle pine stands. Some key areas for discussion include:

- Guidance for development of a Crown-wide Recovery Plan, specifically how might highly protected areas best fit into a landscape scale strategy (e.g. as control areas, or areas for beneficial wildland fire use, etc.);
- How might the Aldo Leopold Wilderness Research Institute decision-making framework guide our thinking about restoration in wilderness areas where the default alternative is for managers not to intervene (e.g. how might we think about thresholds/triggers for action); and
- How can a deliberate tracking of restoration actions inform future thinking about restoration in highly protected areas (e.g. how might we monitor existing restoration outside of protected areas to accelerate learning about efficacy where managers do decide to intervene, determine what might be suitable (or necessary) within protected areas to sustain the larger meta-population – need to link to Outcome #3, monitoring efforts).

WHEN: A conference call to discuss the points above will be convened in spring/summer of 2016.

WHO: The following individuals should be involved:

- Anne Carlson, The Wilderness Society (Lead)
- Jimmy Gaudry, US Forest Service
- Beth Hahn, Aldo Leopold Wilderness Research Institute
- CSKT representative
- Mary Riddle, Glacier National Park
- Rob Davies, Flathead National Forest
- Andy Bower, Pacific Northwest Forest Service
- Lisa Machnik, Region 6 US Forest Service
- Amanda Weber-Roy, BC Parks

OUTCOME #6: DEVELOP RECOMMENDATIONS TO GUIDE PRO-ACTIVE FIRE MANAGEMENT IN FIVE-NEEDLE PINE FORESTS

WHY: Fire has both positive and negative implications for whitebark and limber pine. Regeneration of these species is closely linked to newly burned areas, and fire is important for removing competitors. However, higher-intensity fires can kill five-needle pines, which poses a threat, particularly to important individuals (e.g. Plus trees, reproductively mature trees) and stands (e.g. climax stands). Wildland fire use and prescribed fire are important restoration tools, particularly in the Crown given anticipated increases in productivity (leading to increased competition) and increases in the size and intensity of fires as a result of climate change. Workshop participants discussed several needs, including the need to engage fire managers directly in five-needle pine restoration objectives, the need to develop common best practices for using/fighting fire in the context of five-needle pine forests, and the need to accelerate post-fire monitoring using standardized monitoring protocols, so we can learn more about effective fire use.

WHAT: The following tasks were identified:

1. Draft a five-needle pine “Best Practices of Fire Use and Management” guide, and encourage agencies/organizations to incorporate it into their fire plans to ensure a consistent approach to the application of fire, with clear objectives (this should also be included as part of the Crown Recovery Strategy).
2. Develop an email list of fire managers and other relevant people to aid in communication and sharing of information.
3. Coordinate spatial data between fire managers and mapping specialists to ensure appropriate and consistent wildfire responses in five-needle pine forests.

WHO: The following individuals were identified as having a role in this outcome:

- Jed Cochrane, Parks Canada (Lead)
- Scott Murphy, Parks Canada FMO
- Bob Keane, RMRS Fire Sciences Lab
- Michael Albritton, BLM
- Fire Management Officers from National Forests
- Ron Swaney, CSKT
- Ryan Good, Alberta WFSS
- Scott Jevons, AB Parks (Kananaskis Country)
- Brenda Shepherd, USFS Region 1 Fuels Program Manager
- Jean Walters, Mike Black, British Columbia, WS
- Peter Holmes, BC FLNRO
- Dave Hanna, The Nature Conservancy
- Dave Soleim, Glacier National Park
- Adrian Leslie, Nature Conservancy of Canada
- Ken Schmid, BLM
- Michael Murray, BC FLNR

OBJECTIVE #7: DEVELOP A MULTI-FACETED COMMUNICATIONS STRATEGY TO RAISE AWARENESS AND SUPPORT FOR FIVE-NEEDLE PINE RESTORATION AND CONSERVATION

WHY: Despite the imperiled status of whitebark and limber pine in the Crown, these species do not command the same level of support and priority that other imperiled species do. Part of what will enable more vigorous conservation and restoration of these species is increased awareness and support from the public, policy makers, decision makers, industry and community stakeholders. A multi-faceted communications strategy would identify the key audiences to target, and identify and prioritize communications to those audiences, with the end goal of supporting an increase in the pace and scale of restoration across the Crown.

WHAT: Workshop participants expressed an interest in a multi-faceted communications strategy to raise awareness and broaden support amongst multiple audiences, for the purposes of increasing the pace and scale of restoration across the Crown. Participants did note that a communication strategy would have to be tightly knit to other collaborative activities, so the communications doesn't get out ahead of "clear messages" and can be matched well with "key asks", also certain types of "branding" and other activities already in place can be promoted from the start. Ideas for elements of a communications strategy included:

- Branding – e.g. a common slogan, common messaging, common solutions
- Interpretive signing (can borrow from PNW region), tours for the public
- Development/promotion of an app, that serves to educate and also can serve as inventory tool
- Curriculum-based education services, extension materials, and education that can be promoted via social-media.
- Organize field tours with key decision and/or policy makers
- Partner with key constituencies to help disseminate the message (e.g. tourism industry, newspaper/other media, youth groups, backcountry rangers, etc).
- Include the important role of fire in communicating/educating the public

WHO: The following individuals expressed interest in joining a Communications committee, and suggested having a group meeting by June 30 to determine group composition and responsibilities.

- Megan Evans, Alberta Environment & Parks (Lead)
- Julie Shamhart, Whitebark Pine Ecosystem Foundation
- Heidi Egle, Alberta Environment & Parks
- Randy Moody, Whitebark Pine Ecosystem Foundation of Canada
- Ashely Wruth, John Stoesser or Christy Gustavison – Waterton Lakes National Park
- Janette Turk, Public Affairs Officer from Flathead National Forest

- Others suggested included Camina Weasel Moccasin (Blood Tribe), Brenda Davidson to help with engaging private landowners in her area, Taylor White to help engage NGOs and nurseries