

Whitebark Pine Restoration:

You have to crack some eggs to make an omelette

- Endangered Species Act Status - USA
- USFS Sensitive Species Status
- Framework for Restoration and Management



Steve Shelly and R1 WBP IDT
U.S. Forest Service
Region 1

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WBP petitioned for federal listing in 2008

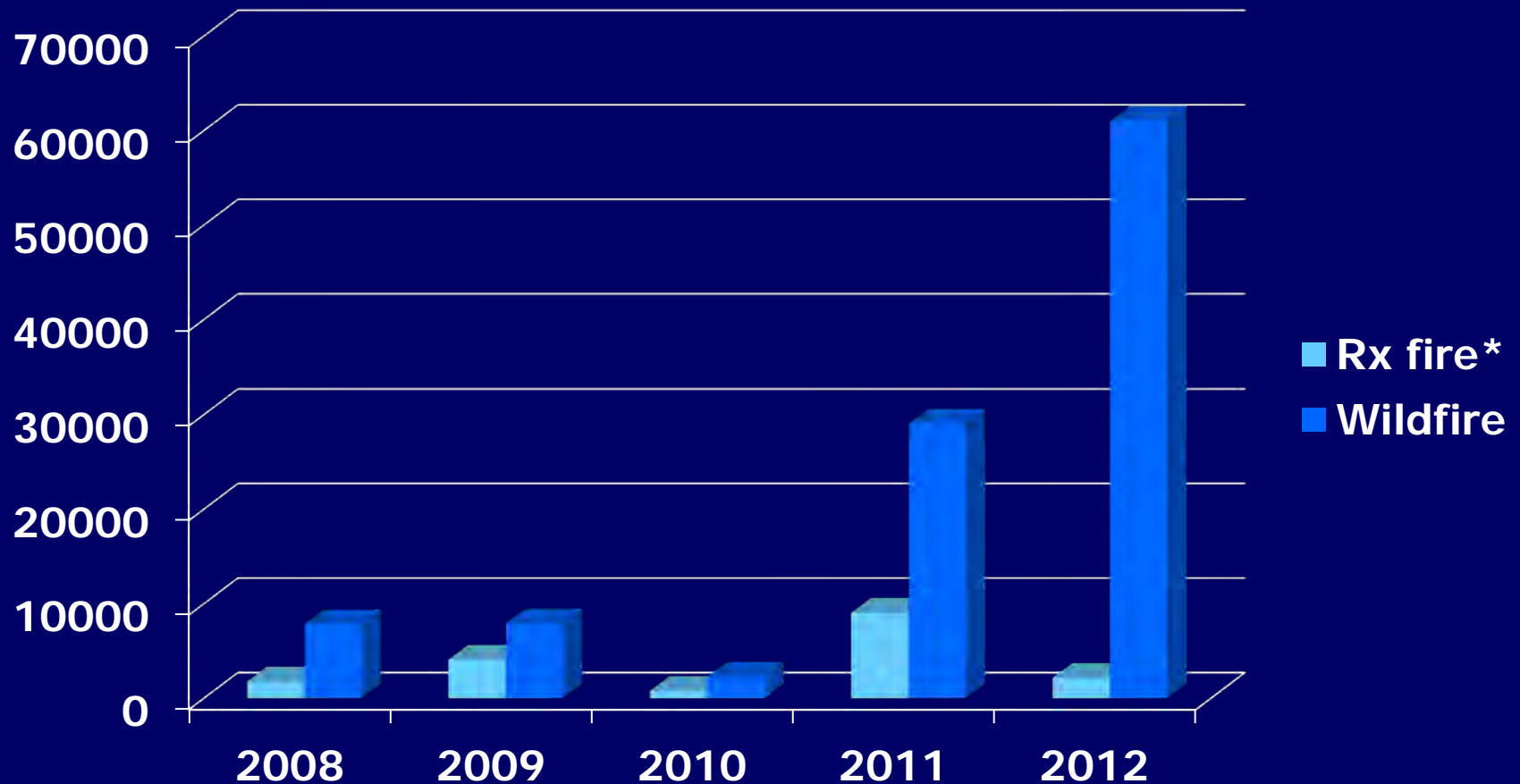
- *Natural Resources Defense Council:*
 - Fire suppression, white pine blister rust, mountain pine beetle, climate change
 - July, 2011 - USFWS: "listing *P. albicaulis* as threatened or endangered is **warranted**. However, currently listing *P. albicaulis* is **precluded** by higher priority actions..." (also - inadequate regulatory mechanisms)



Fire exclusion in whitebark pine – Beartooth Plateau, Montana

Fire in Whitebark Pine Habitat

USFS Region 1 – Acres per year



*[*Rx fire includes WUI and non-WUI treatments]*



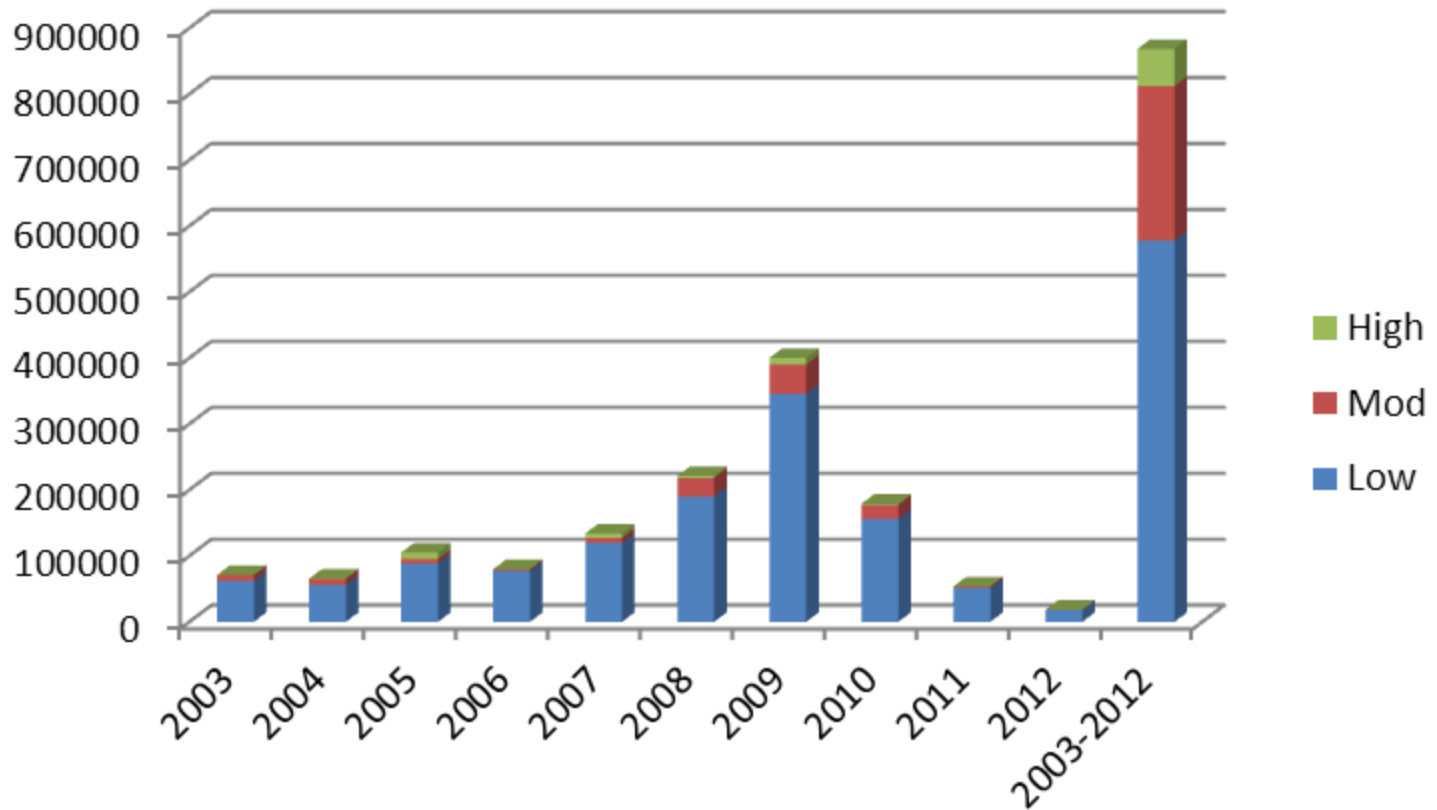
Blister rust on whitebark pine – Gold Pass, Lolo National Forest



Whitebark pine mortality from MPB – Birch Creek, Beaverhead-Deerlodge NF

USFS Region 1 - Acres of Mountain Pine Beetle in high-elevation 5-needle pines.

Trees per acre: low (1-5), mod (6-15), high (>15).



Candidate Species



- The “warranted but precluded” finding means the species is a *Candidate* for listing (there is sufficient information to propose it as E or T)
- Listing Priority = 2 (on scale of 1 -12):
 - Threats are of high magnitude and imminent
- Candidates have no statutory protection under ESA, and consultation is not required
- Timber management was NOT identified as a threat by USFWS

Forest Service status



- Sensitive species designation was necessitated by the “warranted” finding
- Sensitive species: Regions 1, 2, 4, 5, 6
- Region 1: sensitive species designation went into effect on December 24, 2011
- Projects that involve habitat should include whitebark pine in Biological Evaluations (BEs)

Sensitive Species: Policy



- Avoid or minimize impacts to species whose viability has been identified as a concern
- If impacts cannot be avoided, analyze the significance of potential adverse effects on the population or its habitat within the area of concern and on the species as a whole

The New Reality

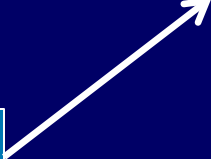
Project proposal



NEPA analysis



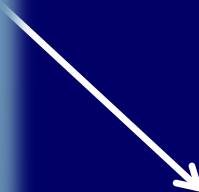
Effects on WBP must be analyzed in the BE



“Beneficial Impact”:
Projects... that are designed to benefit, or that measurably benefit, a sensitive species



“May impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species”



“Will impact individuals or habitat with a consequence that the action may contribute to a trend towards federal listing or cause a loss of viability to the population or species”



A “hands off” approach has not worked; otherwise the USFWS might have made a different determination (with ~50% of the habitat in designated Wilderness and NPs)

We are now managing WBP in the context of these two designations (sensitive, candidate)

The designations have changed how interested NGOs and the public look at projects in WBP habitat

What is an acceptable level of **short-term** impact to living trees, for the benefit of **long-term** restoration?

Flathead NF



- (NOA, p. 53) “The *ROD and FEIS do not show that surveys have been conducted to determine presence and abundance of whitebark pine regeneration*, or if whitebark pine seedlings and saplings are present, *what measures will be taken to protect them*. The project should have included an *alternative that excludes burning in the presence of whitebark pine regeneration* (consider ‘Daylighting’ seedlings and saplings as an alternative restoration method). There has been *no analysis on the effect on grizzly bears of the loss of whitebark pine* trees in violation of NEPA, NFMA, the APA and the ESA. Whitebark pine are an important food source for grizzly bears.”

Helena NF



- Litigation:
 - “The Forest Service states that one of the purposes of commercial logging and clearcutting in the Project area is to restore whitebark pine.
 - “Although the EIS states that whitebark pine is one of several tree species “favored” to be left in the area after logging, **there is no express prohibition against logging individual whitebark pine trees and saplings.**”
 - “The best available science on whitebark pine restoration is Keane and Parsons (2010), “Restoring Whitebark Pine Forests of the Northern Rocky Mountains, USA.”
 - “Keane and Parsons (2010) **does not recommend commercial logging and clearcutting as a means to restore whitebark pine.**”

The "Framework": NEPA Template

- Project design and effects analysis
 - Based on restoration strategies and literature
 - Rangewide Restoration Strategy
 - GYE Restoration Strategy



NEPA Template – R1

■ Project design

- Silvicultural treatments (“target stand”)
- Fire/fuels management
- Insects and disease, including WPBR
- Wildlife – grizzly bear and lynx
- Regeneration
- Cone-bearing trees
- Genetically diverse areas
- Planting
- Acceptable mortality
- Protection situations
- Wilderness



NEPA Template – R1

- Effects analysis
 - Current condition (all geographic scales)
 - Ecological information
 - Direct, indirect, and cumulative effects
 - Address 4 primary threats, and how the project contributes to recovery





BAD

- Loss of cone-bearing trees
- Loss of potentially rust-resistant trees
- Loss of “Plus” trees
- Impacts to genetically diverse areas
- Insufficient populations for ensuring natural regeneration via caching

GOOD

- Thinning shade-tolerant species
- Openings for seed caching
- Retention of apparent rust-resistant trees
- Diversity of age classes (recruitment)

NEUTRAL

- Loss of small trees that are unlikely to be released
- Loss of trees with substantial blister rust

Protection situations

- Regeneration (an appeal point)
- Cone-bearing trees (especially in grizzly bear areas, and elsewhere as appropriate for wildlife species; an appeal point)
- Plus and Elite (“proven”) trees
- Other trees showing rust resistance and perhaps MPB resistance
- High genetic diversity areas
- Isolated populations >30 miles
- Seed orchards
- Long-term performance tests and clone banks
- Populations on the margins (FHP)

Trail construction in occupied WPB habitat



- Do not remove plus trees or cone-bearing trees with apparent rust resistance
- Do not remove whitebark pine trees over 8" in diameter
- Small WBP trees that are suppressed can be removed, especially if they have rust, because they probably would not release
- Remove competing shade-tolerant trees where possible

Summary



- “Beneficial impact” is the goal for proactive projects!
 - Project is tiered to a restoration strategy
 - Project directly addresses the 4 ecological threats in design and analysis
 - Base project design and effects analysis on literature (especially for Rx fire and mechanical treatments)

Summary



- Address consequences of no action
(= further trend towards federal listing!)
- Document abundance and condition of regeneration, plus trees, and rust resistance
- Protect trees where necessary
- Cracking some eggs may be OK – but analyze and document it!
- Don't do it alone! [nterdisciplinary approach is critical]

Information



- O:\NFS\R01\Collaboration\WhitebarkPine

- R1 Whitebark Pine website:

<http://www.fs.usda.gov/main/r1/plants-animals>
and click on "Whitebark Pine"