**Cragin Watershed Protection Project (CWPP)- Field Meeting**

**2nd Stakeholder Meeting**

**Wednesday, October 21st, 8:30AM-4PM**

On October 21st CWPP stakeholders engaged with project partners on a field tour of the project area. The plan was to visit up to 6 areas (*see map*) and have topical discussions at each stop (*see field-day agenda*). Heavy rain limited field discussions after the first 3 stops, therefore the day ended with indoor discussion at the Blue Ridge Ranger Station.

**Participants**

See Appendix A.

**Baker’s Butte Field Stop**

**Tower/Infrastructure**

* Baker’s Butte is one of four fire towers in the Mogollon Rim Ranger District -Moqui Tower is also within the CWPP footprint
* Visitation at the tower is greatest in the spring and summer months

*Q: What is the longevity of the tower and its usefulness as technology continues to advance (i.e. drones)?*

* + It will continue to be manned into the future, especially in May and June, as those months are critical for fire risk
  + Planes and drones cannot provide continuous observation

**Large tree removal surrounding tower**

* Some trees surrounding the tower inhibit view for fire lookout operations
* Forest Service is proposing to cut 35 trees, that are over 24” in diameter, within the 27 acre footprint
  + Would require a Forest Plan amendment
  + Most are Douglas fir with a small number of pine and two oaks which will be topped
  + Topping the trees is an option for some, but it is dangerous and expensive, plus topped trees will need re treatment

*Q: As an alternative, can the tower be added onto for height to improve visibility?*

* + It is a historic tower and would need special permission, likely from SHPO, for an addition
  + Funding for facilities is very difficult to come by, especially for an addition to a fire tower.
  + The tower was recently improved with the addition of the catwalk and replacement windows

**Fuels Reduction**

* Most of the area is 25% slope or greater with large basalt boulders (slope varies from 15% to 40% across the 27 acres)
  + Difficult location for mechanical treatment.
  + It is estimated that only 8-9 acres of the 27 total acres would be accessible for mechanical treatment
  + Hand thinning/chainsaw work would be recommended to protect the residual stand
* Access – the tight switchbacks on the road to the tower would likely prohibit a logging truck, and temporary roads would be difficult to install due to grade from the 300 road to the tower
  + The volume of product on 27 acres, both large timber and smaller biomass would likely not be worth it
* The area around the fire tower would likely be in the line of a large fire coming from Pine Canyon with SW winds
* Fuels reduction here would be a good start to protect the remaining watershed.
* Hand thinning and thinning from below are the recommendations at this site

**Immigrant Mexican Spotted Owl (MSO) Protected Activity Center (PAC)**

**Current numbers**

* Currently 26 PACs in the watershed (CWPP)
  + Each PAC has roughly ~600 acres
  + A PAC is designated by the presence of a MSO
  + 100 acres comprise the nest core area
  + Some of the existing MSO data on occupancy and roosting status are from the 70s and 80s and need to be resurveyed using modern protocols
    - then evaluated to verify maintaining the PAC or decommissioning
  + Likely adding at least 2 new PACs this year based on survey results
* Surveys
  + In 2016 - Conducted in areas with and without PACs to be thorough
  + Conducted in the summer months, every PAC will be assessed for presence
  + Protocol is every 2 years.
  + If there is no presence detected during one year of survey, the PAC is not removed from the list, it will continued to be surveyed in years to come to verify and then the PAC may be decommissioned
  + East Clear Creek task order area (within the CWPP footprint) has been surveyed and is ready for treatment
  + Goshawk surveys will be complete in 2016, one survey per project area

**Potential Treatments**

* High crown fire potential in most of the PACs (see crown fire and MSO PAC maps), therefore foregoing treatment in these areas would be unwise
* Follow MSO guideline to maintain basal area and canopy cover within the PACs
* ~3000 acres (of the existing 16,000 acres of PACs) within PACS will be proposed for treatment – areas of flatter ground and not in canyon areas
* No mechanical treatments in the canyons dues to steep slopes, however some prescribed burning could occur
* Many of the PACS are in the Wildland Urban Interface (WUI) of the municipal water supply
* Timing of prescribed burning will not be limited by mechanical thinning; burning can happen before. One part of the project area can be thinned and another part can be scheduled (at the same time) for prescribed burn when conditions are appropriate.
  + Smoke is a concern during the breeding season (Spring and Summer)
  + Previous burning during breeding season had little to no impact, but this watershed has so many PACs that burning anytime will produce smoke impacts.
* Implementation Plan (as an appendix to the EA)
  + Used to guide the staging of treatments (mechanical, hand thinning and burning) and how they can happen simultaneously.
  + Plan will be developed with the work of biologists on the forest and the USFWS.

**General Springs**

**Wildland-Urban Interface (WUI)**

* Municipal water source (46,000 acres) is WUI
* Inner WUI has infrastructure (lookouts, campgrounds, etc.)
* A few private inholdings
* WUI Boundary is defined by Community Wildfire Protection Plan and FS Regional guidelines and boundaries are along logical barriers, like roads, for treatments

**Infrastructure: Pipeline/Reservoir**

* Payson has 27% water yield from the reservoir, they share the responsibility of maintenance of all existing infrastructure (reservoir, pumping plant, pipeline, recovery wells, hydroelectric generator and others)

*Q:* *When is the water pumped?*

* + It is gravity fed 9 months out of the year

*Q: What are the water production costs?*

* + Currently $70/acre foot, with the pipeline it will be $40/acre foot

**Meadow Treatments**

* The East Clear Creek Watershed Health EA (2006) has implemented several channel restoration projects that stabilize streambeds, reducing gullying and headcutting, and dissipating the energy of the flow of water
  + The streambed at General Springs has entrenched ~7 feet into the floodplain and no longer has access to this floodplain
  + Exclosures (like the one near General Springs) were installed beginning in the 80s with the intention of excluding ungulate grazing, and have not been planted or seeded
  + After a period of overgrazing beginning in the late 1800s, some incised stream channels have reached a new equilibrium in which an inset floodplain is forming within the incised channel.
* Some headwater meadows (historically) were created by the accumulation of sediment derived from upland (hillslope) erosion in response to a historic, low intensity, high frequency fire regime. As forests have become overgrown by lack of fires, there is less sediment derived from hillslope erosion and less influx of sediment into headwater meadows.
* NEPA Ready treatments (with some logistics to work out) include:
  + Meadow thinning – due to incised streambeds, the local water table below headwater meadows has declined allowing conifers to expand into these meadows.
  + Stream channel stabilization – the prevention of headward expansion of headcuts in incised streams within the East Clear Creek watershed
* CWPP meadow treatments (potential)
  + Potato Lake Draw thinning – tree removal from the edges
    - Meadow footprints are well known by the soil (mollisols) footprint and where historic meadows have been
  + Additional meadow treatments will have stakeholder input pre-Proposed Action, therefore stakeholders are encouraged to weigh in on this now.

**Other topics**

* AZGFD would be interested in stream stabilization and improving beaver habitat and subsequently improving fish habitat
* Roads
  + Sediment sources for streams
  + Placing roads into long-term storage by blocking entrances after insuring proper drainage would be ideal for some
  + Analysis for temporary roads, potentially using old roadbeds and then taking them back out, LIDAR could be used for that as well.

**Blue Ridge Ranger Station Discussions-** *wet weather precluded remaining field portion of the day.*

**Managed Fire- General Fire example**

* 2015 General Fire was a managed fire
  + Purpose: treatment of dog hair thickets – challenging to do without killing other nearby trees
* Invasive species tend emerge after fires when there are large openings and a full seed bank

*Discussion:*

* Cost: varied from $25/acre to $200/acre
  + Average cost across 35,000 acres was $75/acre
  + With 5 entries to get all biomass out/consumed = $750/acre
* Economics and ecological factors at play for fire to consume slash vs. removal through other means (eg, biomass removal)
  + All tools need to be considered in the process of designing the proposed action
* Fire, ecosystem function, smoke, health of surrounding communities are all key factors for treatment decision making

**Piles and tree thinning**

* Complete biomass removal is best for soils, but the money needed to get all of it out and processed can be tricky
* Considerations:
  + Packaging of the contract
  + Getting the biomass out and processed
    - Better to take out dry product for cost effectiveness, which would require leaving material for up to a year
  + The value of the products may not be enough to offset the costs of the work
  + Discussion of long-term costs for thinning compared to multiple re-entry for prescribed burning
  + Cost of mechanical treatments vs. hand thinning; hand thinning, piling and burning can only treat small diameter trees
  + The sooner the treatments occur the better
* All tools need to be used when and where appropriate
* Implementation costs
  + Not a consideration quite yet (will be part of the economic analysis of the project, but not part of the project action)
  + Market analysis will be conducted for the project and input is welcome
  + Important to look at the locations that will work first and then what the costs will be

**Recreation – AZ Trail**

* National Scenic Trail since 2009
* 16 miles of trail within CWPP
* Considerations:
  + Preserving the natural landscape
  + Treatments will impact the trail and the experiences it provides
  + Using AZT as a resource – GIS layers and stakeholder information/engagement

**Potential Treatment- See DRAFT handout of potential treatments**

**Broad scale treatment descriptions/recommendations**

* Location
  + SPOT (strategic placement of treatments) could help achieve goals and objectives
  + Perhaps begin in the southwest corner of the project area (lots of overlap here: recreation, fire, industry, PAC protection)
  + Distance to industry – keeping this in mind could be helpful
    - Within 50 miles biomass works, further is problematic
  + Highland/upland side of PACs – SW sides could be highlighted as areas that could be thinned to provide a fire break before the PACs
  + Priority areas for treatments
    - Creeks, streams, SW sides of PACs
    - Recreation-intensive areas could also be priorities
    - Alignment with crown fire potential areas
* MSO PACs
  + Maintain denser forest for PACs and have more restorative treatments between them
  + Treatments in PACs will differ between pine type forests and mixed conifer
  + Keeping old growth and 18” and larger –not necessarily forest health driven
  + Uneven aged development
    - Some thinning has been done
    - Larger holes need to be implemented for regeneration of different age classes
    - Patches and openings can open up goshawk areas
* Incorporate micro structure language into proposed treatments
  + Clumpy, groupy, downed wood, etc.

*Q: Within the Proposed Action, will there be multiple re-entries with fire?*

* + Yes, potentially every 10 years
  + Seasonality – April to June timeframe, not just winter burns given the right weather to maintain variability

**Wrap up-Next Steps**

**Timeline for Proposed Action**

* Out for review for stakeholders in 3-4 weeks
* Draft treatment maps out after field notes
* Next stakeholder meeting (late November/early December) will focus on Proposed Action
* Also will involve stakeholders on how to engage the broader public

**Appendix A. Participant List**

**Name Affiliation**

Spencer Plumb National Forest Foundation

Fred Gaudet Arizona Trail Association

Jan Hancock Arizona Trail Association

Steve Horner Campbell Global

Jeff Spellman Camp Colley

Amy Waltz Ecological Restoration Institute – NAU

Buzz Walker Town of Payson

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