



**4FRI Stakeholder Group Meeting**

Wednesday, August 24, 2016, 9AM-12:35PM  
 Coconino National Forest Supervisor's Office  
 1824 Thompson St, Flagstaff, AZ 86001

Teleconference line: (712) 775-7031, code: 439290611#

**In Attendance:** Paul Watson, Brad Worsley, Bruce Greco, Tom Mackin, Paul Summerfelt, Charlie Ester, Lee Ester, Stephen Flora, Henry Provencio, Dan Kipervaser, Natasha Kline, Kelly Wolff-Krauter, Audrey Owens, Patti Turpin, Jay Smith, Bryan Zebrowski, Dian Vosick, Laura Jo West, Scott Lerich, Steve Rosenstock, Travis Bruner, Katherine Sanchez-Meador, Annette Fredette, Joe Miller, Debbie Cress, Bryce Esch, Allison Jourden, Sue Sitko, Mark Nigrelli, Amy Waltz, Randy Fuller, Rick VanDemark, Brienne Pettit, Robert Sanchez, Michelle Ralston, Patrick Rappold, Bill Baker, Aaron Green, Steve Horner, Royce Kincanon, Pascal Berlioux, Neil Chapman, Travis Woolley, Mandy Metzger, Steve La Falce

**Phone-In:** Rob Davis, Sharon Adams, Tommie Martin, Dorothy Holosick, Jason Whiting

**9:05 Approve minutes from the July 27<sup>th</sup> SHG meeting** — Paul Watson  
 Approved with no changes.

**9:10 Review action items from the July 27<sup>th</sup> SHG meeting** — Paul Watson

Action Item	Lead	Status
1. Revise Dashboard based on SHG feedback and present at a future SHG meeting	IWG – Steve Horner	In Progress -
2. Follow up on economic analysis with the Industry Work Group	Russell, Worsley, Berlioux	Ongoing
3. Develop and present PWG recommendation on the Proposed Action at the July SHG meeting	PWG	Complete
4. Organize a meeting to form an implementation Working Group for the 1 <sup>st</sup> EIS	Vosick	Complete
5. Send facilitation request to Scott Russell. Prepare letter for Co-chairs and send	Vosick, Berlioux	Complete
6. Put in final form and send SHG approved Proposed Action Comments to the USFS. Prepare letter for Co-chairs and send	Berlioux	Complete

**9:15 Call to the Public**  
 None

**9:20 USFS Update** – 4FRI Board, Coordinators

- **Rim Country Proposed Action Comments** – Annette Fredette

Henry Provencio: Introduces Robert Sanchez, new Deputy Forest Supervisor Coconino National Forest (Board Member of 4FRI Team), coming from Utah.

They are working on Optimization Modeling with The Nature Conservancy (TNC) which will hopefully lead to a Master Stewardship Agreement which will provide precedence for how they will work together on future projects. They're also working on a stewardship agreement with

Navajo County which will also serve as a master for future supplemental project agreements (SPAs). They are conducting an After Action Review of the Burrow Stewardship Project.

Timber Sales – 2 timber sales were made on the west-side on the Coconino, and 2 timber sales on the east-side to Tri-star

Operations/Coordinating update –

- Sitgreaves/Larson Sandstone sale has been advertised – FY 16 award;
- The Coconino/Elden Base/Little Springs have been sold – Pending Award;
- Kaibab/Cuckoo Park Mid Prospectus has been sent out;
- Tonto/Angel Rim Project has been pushed back to FY17;
- Laramie project bid date has been pushed forward from Sept. 26<sup>th</sup> to Sept. 14<sup>th</sup>

Monitoring Update: Finished off surveys of perennial streams with Grand Canyon Trust using volunteers

- Upcoming: Spring Surveys working with Spring Stewardship Inst; Femoral stream surveys will occur with Grand Canyon trust

Planning: Refer to Handout (available on BASECAMP) – “List of Topics Addressed in Scoping Comments”

### **Action Item: Upload Scoping Comments to BASECAMP**

They've been holding meetings with several tribes across the Rim Country project area that went very well – they're listening to the values and needs of tribes and are engaging their help with implementation and planning.

Adding team members – Wildlife Biologist and Administrative Operations personnel

### **9:40 Camp Navajo Biomass Plant Update – Bryan Zebrowski**

They've established a work group of 29 people that are currently going through the Scope-of-Work draft, before researching contractors:

- to explore five biomass plant technology applications
- to analyze and validate current assumptions regarding long-term availability of infrastructure utilities and feedstock access and transportation corridors
- to determine estimated cost for preferred technologies,
- to look for recommendations on the optimal size in megawatts of the plant as well as the material processing methodology
  - to determine viability of marketing power and researching additional techs beyond biomass that can be incorporated into this facility to provide for economic diversity and stability

They currently have about \$20,000 of the \$30,000 match committed and are still looking for additional match.

Update on transfer of Camp Navajo to DOD: Working with Sen. McCain's office on a draft of that bill. It's should be going to committee in Sept. – it's expected to move quickly so transfer is expected to go in to effect by Nov./Dec.

- The entire 28,473 acres of Camp Navajo is involved in the transfer

### **10:00 SRP FLOWtography Presentation – Lee Ester - Salt River Project (SRP):**

SRP maintains a stewardship role to protect the water supply on the Salt and Verde rivers from the water rights perspective and they have an extensive network of points of measurement throughout Arizona.

Large Scale Monitoring – Two river gauges: Verde River gauge at Clarkdale which catches Chino Valley flows; Camp Verde gauge will capture all of the flows

Midscale Monitoring – They aim to try to re-instrument some currently inoperable sites (Beaver Creek, Woods Canyon) to start a long-term record of what is occurring at those locations. Because of the funnel point out of Sycamore watersheds, they would like to place a gauging station just north of the wilderness area but below the two sycamore watersheds, in the future. SRP's goal is to integrate this in to what their normal operating practices already are.

Prep. & Monitoring Costs: SRP has spent \$1.3 million on this project to date. This includes: early work with universities, specifying locations, permit costs, field prep. costs, early equipment installations, and other field costs. They plan to spend another \$7 million on it before it's finished, through FY36. They're currently in the capital installation stage. This will be followed by the collection and storage of this data.

- 2023-2024: time frame when impacts to smaller areas are scheduled to begin, following the completion of the pre-data collection stage

FLOWtography – A system of cameras that SRP worked to develop to capture images in forests to identify and record events and key occurrences. These cameras are cellular-based, solar-powered time lapse game cameras. They use time-lapse as well as PIR (infrared response to movement) technologies to provide data that spans increments of time in both night and daytime settings. These captures will show people what these recorded events “looked-like” opposed to showing them data typically presented in hydrographs and precipitation measurements. This technology has also captured and recorded habitual occurrences of a monitored region's wildlife. FLOWtography equipment captures about 35,000 images per location, in 15-minute increments.

Joe Miller: Trout Unlimited is focusing on the Rim Country EIS. They've already been monitoring stream temps with AZ game and Fish and would like to coordinate with SRP in sharing data. They might have some compatible information to offer SRP regarding stream data, as well as capabilities in analyzing the massive amounts of data being collected by SRP.

Capture and Retention: With the changes in the forest structure from 4FRI treatments, we would ideally see additional ground water infiltration into the aquifer which results in increased base flow, which we would first see in some of these intermittent streams. This should transfer to increasing the base flow system. When there's a big flow event, SRP isn't sure if the forest treatments will result in stronger flood flows but if so, they will end up spilling the water as many of their dams may already be at capacity. The real problem is the siltation of the dams.

Berlioux: Sooner or later horseshoe will be ineffective, so we have to figure out how we capture opportunities for augmentation when we're in a situation where we can barely afford to lose a dam.

### **10:45 TNC Tablet Technology Presentation – Woolley/Sitko/Chapman/Foust**

Digital Restoration Guide (DRG) – The goal is to work with FS to do tree marking in a more technologically advanced way. Using this in-cab tablet tech. allows them to collect data as they're harvesting which will better inform future prescription decisions.

Potential Cost Alleviation: Tech. will help alleviate cost in paint. \$20/ acre X 250,000 acres = \$5,000,000 in paint. A person can paint 10 acres a day = 25,000 person days. DRG can save in paint costs as well as personnel labor costs.

Digital Tree Marking (DTM): Designates tree thinning at group scale. Any harvest feature can be developed, tested and evaluated. Polygons on the guide have diameter limits to dictate which trees are kept and which are removed and how this is achieved. Operators can go through and thin interspaces which will allow them delicacy in thinning prescribed polygons. Polygonal groups are anywhere from a ¼ acre to a full acre in size.

Developing Group Prescriptions: The initial prescription is generated based on what is currently existing in a specific grouping: does it have a good range of tree diameters and an uneven age range. Marking crews are still making same observations and decisions they were before - they're just recording it digitally opposed to painting the individual trees. While painting, 8-10 acres/day can be achieved. Using DRG, approx. 60 acres/day can be achieved. It allows the logging operator to make some of the same decisions made by the marking crew.

In-Cab Technology: Takes a GPS point and a date/time stamp with each tree harvested of every tree cut by loggers and has been in place for a couple of years. With this technology in place, loggers are actually collecting monitoring data for us. The DTM component can be incorporated with this in-cab technology. These technologies already existed and the TNC bundled them in a way that would work for us.

Monitoring: They haven't had much progress in using this data to monitor. They have tree harvest locations, they know where they're cut and how they're cut, but they don't have tree size info. They want to pair their technologies with LiDAR technology that is transported aerially and uses lasers to record trees sizes, by making a 3-D image of the forests. They are working with NAU to incorporate LiDAR technology in the work with DTM.

Berlioux: Tablet tech is a tangible step to helping and speeding implementation, as well as cutting costs. Does the FS have the authority to expand the use of tablet technology to every forest in 4FRI? Yes, we do have the authority, but we need authorization from the Regional Office. The board is confident in the FS's ability to use the tech.

Mark Able: They're in the process of getting their crews in the FS familiar with the tablets. It's not a replacement for paint-marking but a tool in addition to current practices.

Berlioux: Let's start looking at a process that identifies how long implementation of this technology will take, where it will take place, and what exactly we need to do with it. Let's initiate the process of hauling the technology out so people will have an idea on what is needed to have a successful implementation.

Summerfelt: a map depicting visually what will occur is more effective than words on a piece of paper because many members of the public are not familiar with many terms used in these processes. The maps showing these prescriptions overlaid onto satellite maps will be a good tool in communicating these processes to whomever needed.

### **11:15 Working Group Updates – All**

- Planning Work Group – Pascal Berlioux

The period for scoping comments is over. The PWG is focusing on the issue of high quality canopy cover habitat. On Aug. 2<sup>nd</sup> they had a field trip w/ 20 people to two different sites. The more we're working on this, the more the notion of counting large trees becomes superficial. We're looking more at the notion of habitat quality, which is a qualitative notion and is harder to translate into quantitative data. They decided on a methodology that the FS will try to see if we have formula to ID places that we actually care about. We look at the primary concept of current condition, which is an issue of stance, structure, or attribute. In order to quantify this, they used 4 matrixes for measurement:

- Site Index (50% and above),
- Basal Area ( $x > 60\%$ ),
- Stand Density Index (lower end),
- Quadratic Mean Diameter (towards higher end)

The PWG has a conference call this Friday (8/26/16) to get some preliminary feedback from Mark and Randy to check that these parameters are effective. They hope that a combination of this data will allow us to figure out a prescription/treatment to what steps to take to improve the quality of the habitat. PWG will be working with Annette and posting on BASECAMP once they have a date for the field trip to visit stands identified by the gov. group.

- Industry Work Group – Steve Horner
  - Revised Dashboard Presentation

Horner reminded the group that the objective of the Dashboard is to provide an at-a-glance depiction of the goals, the progression, and the challenges of the important elements of 4FRI. The first gauge is of the total mechanical thinning acres treated by 4FRI, broken down by contractor responsible. The gauge shows progress relative to the overall goal: Roughly 15,000/50,000 acres thinned for FY15.

Berlioux: Is time to revisit the drafting of the group's goals collectively. The dashboard is supposed to provide an assessment on whether or not we're on track, and the 50k acre goal may be misleading to the group.

The final gauge depicts fire in the landscape as acres in prescribed fire and wildfire burned. FS had a goal of this reaching 75,000 acres/year; however, whether or not managed wildfire should be included in this goal has been questioned.

**Action Item:** Determine the value of depicting goals on the Dashboard.

- Communications Working Group – Sue Sitko

CWG asked for a call for ideas as to what should go in to the October issue of the Stakeholder newsletter. Sue Sitko will not be at the September meeting, so the responsibility of drafting the newsletter is being given to someone else. Email Sue Sitko with any newsletter ideas.

- A newsletter that focuses on the various work groups
  - More monitoring stories
  - Implementation WG
  - Industry Dashboard Information
- Update on acres treated over the last year

- MPMB – Bryce Esch

Songbird surveys are underway, ground plots have started, and remote-sensing for canopy cover work is closing. An annual report-out is appropriate, but as things come up, MPMB will update the stakeholder group at meetings or on Basecamp. We've lost some members recently, so we're looking for more members for MPMB. They meet every 2<sup>nd</sup> Wednesday of the month from 10AM-12PM. Contact Bryce for info.

- Implementation Working Group (10 min) – Diane Vosick

First meeting was held with 10 participants on 8/23/16 and a charter for the group is being drafted and will be present the SHG. IWG passed on some tasks that were considered: taking a field trip to visit some of these stands that were identified as split stands.

Focus narrowed to two tasks:

1. Working on "Other Restoration/Comprehensive Restoration" all of the projects within the 2.4 million acre 4FRI footprint already NEPA cleared. One major focus is to work with FS to id which projects are already cleared by NEPA.
2. Work on putting together recommendations about prioritization and how to sequence mechanical thinning operations.

The idea of analyzing the implementation of the translation of the EIS text is being given back to the MPMB group.

**12:15 Stakeholder Disclosures – All**

TNC just signed a supplemental project agreement under their master stewardship with the Kaibab and the Coconino to implement a project doing more of the DRG work to test how effective it will be and what forms and training are going to be necessary.

**12:30 Review Action Items**

Action Item	Lead	Status
1. Posting Topics Addressed in Scoping Comments on BASECAMP	USFS - Annette Fredette	
2. Determine the value of depicting goals on the Dashboard	IWG - Steve Horner	