Stanislaus NF 5 Year Integrated Program of Work

Process for Identification and Prioritization of Project Areas





Today's Objective

Outline the process for our collaborators

Receive feedback to help refine process





STF-SNF Landscape Vegetation <u>NEPA</u>: What Why How Where

Data is shared for many aspects



STF 5 vr Integrated Program of Work
Prioritization:

- Order to do project areas
- Connected to risks, values, & operations
- use PODs or HUC6 spatial areas to delineate



Purpose and Need for this Integrated Process

• USFS PSW Region Ecological Goal:

"...to retain and restore ecological resilience of the NF lands to achieve sustainable ecosystems that provide a broad range of services...with a pace and scale sufficient to reverse current trends...." (2011)





Purpose and Need for this Integrated Process (con.)

- STF Forest Plan Fire and Fuels Management Goals:
 - reducing threats
 - reintroducing fire
 - combined with strategic placement of fuels treatments across broad landscapes (2010, p. 12-13)





Purpose and Need for this Integrated Process (con.)

- STF Stewardship and Fireshed Assessment
 - Completed in 2005
 - Project areas identified for 2007 2011
 - Old prioritization system is dated, needs renewal, and perform as replicable tool





Background

• 2016

 July - "Forest Service Wildland Fire Activities – Hazardous Fuels Reduction"

• 2017

 August – FSM 5100/Ch 5140 Hazardous Fuels Management and Prescribed Fire



Forest Service Wildland Fire Activities -Hazardous Fuels Reduction



Process

- •Geospatial data
- Incorporates parts of the national/regional wildfire risk assessment process
- Using Highly Valued Resources and Assets (HVRAs)
- Coupled with Risk Factors
- Identify and prioritize large scale project areas on/near the Stanislaus National Forest





Graphic Illustration of Prioritization process

HVRAs + Risk factors + Operational Considerations = Landscape Prioritization



Prioritization process

HVRAS + Risk factors + Operational Considerations = Landscape

HVRAs:

- Human lives & homes
- Wildlife habitat
- Power, water, & communication
 - infrastructure
- Recreation/administrative
 infrastructure

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Prioritization



Prioritization process

HVRAs + **Risk factors** + Operational Considerations = Landscape Prioritization

Risk Factors:
Wildfire behavior
Erosion hazard
Insects and Disease (future threat)





Prioritization process

HVRAs + Risk factors + **Operational Considerations** = Landscape Prioritization

Operational Considerations:

- Timber locations
- Land ownership
- Recent tree mortality areas
- Cooperator treatments
- STF treatments
- Planned treatments
- HUC6/POD "containers"
- Maintenance treatments





Sideboards

- USFS goals: vegetation management- improve health and vigor of timber stands
- Reintroduction of fire into the ecosystem
- Community concerns and interests
- Consider current tree mortality (both standing and down)
- Scale: project areas of approximately 30,000 40,000 acres



• Pace: STF staff time, planning to treatment timeframes



Developed Process to Date

- 1. Identify broad scale parameters to address Forest and Community Concerns
 - Natural disturbance processes & HVRAs
 - Identify landscape-scale areas that are most vulnerable to disturbance
- 2. Utilize WO/RO/Zone priorities
 - Increase pace and scale
 - Increase forest health
 - Reduce fire risk



Developed Process to Date (con.)

3. Determine what spatial datasets most accurately describe HVRAs and Risk Factors.

Example: Fire Risk – burn probability (FSim Modeling)

4. Analyze data range and relative importance.

- Example: Erosion Hazard Rating Model
- Example: recreation and infrastructure data



Developed Process to Date (con.)

5. Utilize Landscape-scale areas (HUC6 sub-watersheds, or PODs)

6. Tally intersecting values across the landscape, and then assign a Priority Descriptive Identifier.

7. PODS or HUCs with similar descriptive identifiers may be consolidated into a larger project area.





Example of HVRA, Risks, and Operational data

Parameter	Direction	Priorities/HVRAs	Datasets
Natural	Identify PODs	Fire Risk - Burn	Burn probability
Disturbance	that are most	probability of wildfire	(FSim Modeling)
	vulnerable to	with greater than 4	under RO leadership
	disturbance	foot Flame Lengths	
		Hydrologic Systems, or	Erosion Hazard
		Erosion Hazard Rating	Rating Model (by
		Model	STF staff)





Human Habitation

This is based on housing density, using 2010 Census data.



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Wildlife Protected Activity Centers (PACs)

- CA Spotted Owl
- Northern Goshawk
- Great Gray Owl



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Recreation and Admin Sites, and Major Infrastructure (water, power, and communications)





Wildfire Risk & Burn Probability

Probability of 6 foot flame lengths (and higher) on a given year, under multiple weather and ignition scenarios









_egend

0.00001 - 0.25

Probability of 6ft Flame Lengths

Ferguson

Donnell

Erosion Hazard Rating Model





National Insect and Disease Risks

Modeled in 2012, before our 5 year drought fully occurred





Operational Timber

- Dark green is CWHR size class 2
 3 (1-11 in. DBH)
- Light green to red is CWHR size class 4 and above (11 in. and above DBH)
- Conifer trees (both fir and pine)
- 2 scenarios: slope <35% and slope <50% & distance to roads



Shared **Stewardship and** Land ownership

Ownership

BIA BLM

BOR

NPS **PVT**

SPI STATE

OWNER

LOCAL GVT



6 G

Ownership STF - HVRA

3/13/2019

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Spatial data in process:

- Cooperator treatments
- STF treatments
- Areas that are planned (been through NEPA process), but not treated yet





Sub-watersheds, or Hydrological Unit Code 6 (HUC6) and

Potential Operational Delineations (PODs) and







DRAFT Concept Map

Summary map using some HVRAs & Risk factors

- Goal assess every year
- Reevaluate prioritization every 5 years or when large landscape events occur.





Moving Forward

- Continue to build & refine 5 yr program of work process
 - Goal to assess every yr
 - Reevaluate prioritization every 5 years <u>or</u> when large landscape events occur
- Forest Leadership & Specialists review process and determine effectiveness
- Incorporate feedback from cooperator involvement/discussions



 Reanalyze when updated forest-wide data is available (LIDAR) <u>or</u> as new process steps are developed

What's Next?

- Specialists & collaborators review process, and make comments/suggestions that would enhance the process
- Review & consider comments and suggestions
- Completed version of prioritization





Discussion Questions

- 1. After viewing the presentation, do you have any general comments regarding the STF 5-Year Integrated POW Prioritization Process?
- 2. Should the HVRAs, risk factors, and operational considerations be utilized based on relative importance? If yes, then in your estimation, how should they be considered (please list)?





Discussion Questions (con.)

3. Should the sub-watersheds (HUC6) be used to delineate projects instead of the PODs? Please explain.

4. Are we missing any criteria? Should the missing criteria be added to or replace existing datasets?





Thank you for your time, feedback, and shared stewardship of our public lands.

Comments due by May 17, 2019 to: Beck (rebecca.h.johnson@usda.gov) or Carol (carol.ewell@usda.gov)



