

Work Plan for Carrying Out Board of Forestry and Fire Protection Direction for JDSF Advisory Group Recommendations on Development of Research and Demonstration Plans, Landscape Allocations, and Governance

Developed by CAL FIRE and Board Staff

WORKING DRAFT November 15, 2011

Background

In January, 2011, the Jackson Demonstration State Forest Advisory Group (JDSF JAG) completed its recommendations for changes to the 2008 JDSF Management Plan.^{1,2} Major portions of the JAG's report address direction for research and demonstration programs and plans, allocation of the landscape to different management regimes and forest condition goals, and governance of research and demonstration programs. The JAG produced this report under the direction of its charter,³ which gave it a three-year period within which to review and comment on the 2008 Management Plan.

In July, 2011, the Board of Forestry and Fire Protection (Board) took action on the JAG's recommendations and adopted a significant portion of them. Critical parts of the Board's direction are regarding processes that are to be followed to address research and demonstration programs and plans, allocation of the landscape to different management regimes and forest condition goals, and governance of research and demonstration programs. CAL FIRE took the Board's direction document and interwove additional direction on how the department will move forward to implement the Board's direction.⁴

The main purpose of this current document is to provide a work plan for how to move forward on the process elements of the Board's direction, including the JAG recommendations that the Board adopted. For convenient reference, it includes excerpts from the JAG report to help provide a basic understanding of the JAG recommendations.

¹ A Vision for the Future: The Report of the Jackson Demonstration State Forest Advisory Group. January 15, 2011. California Department of Forestry and Fire Protection and California Board of Forestry and Fire Protection. Sacramento, CA. 127 p. + 2 maps. Available on line at:

http://www.fire.ca.gov/resource_mgt/downloads/Final_JAG_Report_January2011.pdf

² Jackson Demonstration State Forest Management Plan. January, 2008. California Department of Forestry and Fire Protection. Sacramento, CA. 286 p. + 8 maps.

http://www.fire.ca.gov/resource_mgt/resource_mgt_stateforests_jackson_mgtplan.php

³ http://www.fire.ca.gov/resource_mgt/downloads/Charter_JDSF_Advisory_Group.pdf

⁴ http://www.fire.ca.gov/resource_mgt/downloads/CAL-FIRE_Implementation-of-Board-Findings_re.JAG_Recommendations_110211.pdf

Considerations

This document frames up some very significant and complex tasks. Staff and funding resources for completing these tasks and in turn implementing the management direction that comes from them are currently quite limited. Current market prices for timber are a significant factor here, as well as the current harvest levels on JDSF, which are appreciably reduced from their previous levels.

As the JAG noted in its report (p. 7),

JAG recognizes that achieving the long-term vision outlined in this Report will take considerable time, organization, and funding. Implementation of the recommendations, if adopted, may need to be staged over time, depending on the funds available.

Tasks, Responsible Parties, Processes, and Timelines

This section provides a basic schematic of tasks, responsible parties, processes, and timelines for completion of the direction that the Board has established. These are taken from the Board's July direction (including the portions of the JAG recommendations that the Board adopted) and the CAL FIRE direction for implementation of the Board direction. This information is summarized in tabular form below.

The intent is to maintain this work plan over time as an evolving guide to the work needed (and the work completed) to further develop the vision that the JAG and Board have established, in conjunction with the relevant elements of the 2008 JDSF Management Plan.

As the processes below go forward, CAL FIRE, the Board, and the Research Science Committee periodically will seek input from JAG, stakeholders, and the public.

| Task | Responsible Parties | Process/Notes | Start and Completion Dates |
|---|--|--|--|
| <p>1. Strategic Research Plan Develop a clear, well-articulated research plan.</p> | <p>Board's research governance structure Research and Science Committee Board and CAL FIRE staff</p> | <p>The Board has identified the development of a Strategic Research Plan as the first step that they want to initiate. Research and Science Committee (RSC) has held an initial discussion with Board and CAL FIRE staff and Chairman Helms re starting this work. RSC members and Board staff have some "homework" assignments. Will reconvene in late 2011 or early 2012.</p> <p>Plan needs to be feasible under current management resources conditions and able to be scaled up as resources increase.</p> <p>Incorporate an adaptive approach.</p> <p>Seek JAG and public input at appropriate junctures.</p> | <p>Has started. Complete mid-2012?</p> |
| <p><u>1.1 Research-Oriented Management Framework</u> Further develop and specify the research-oriented management framework concept presented by the JAG.</p> | <p>Board's research governance structure Research and Science Committee Board and CAL FIRE staff</p> | | |

| Task | Responsible Parties | Process/Notes | Start and Completion Dates |
|--|---|---|-----------------------------------|
| <p><u>1.2 Stand Structures to Support Research Plan</u> A. The Board's research governance structure will determine the range of stand structures necessary to fulfill the goal of creating a "world class" research and demonstration forest at JDSF. B. The research governance structure will then determine what, if any, modifications to the adopted landscape allocations are required.</p> | Board's research governance structure Research and Science Committee Board and CAL FIRE staff | Recognize that "world class" is an aspiration/inspiration and not an instantly achievable status. | |
| <p><u>1.3 Landscape Allocations</u> The Board's research and governance structure will review and potentially modify the landscape allocation designations recommended by the JAG to be implemented over the ensuing 40 year period and subject to modification. The Board adopted the goals defined for each of these allocations, but not the silvicultural prescriptions.⁵</p> | Board's research governance structure Research and Science Committee Board and CAL FIRE staff | | |
| <p><u>1.4 Landscape Allocation Maps</u> CAL FIRE will update its maps to recognize these designations on the landscape and the specified goals. CAL FIRE will manage these areas consistent with the designated goals.</p> | CAL FIRE | CAL FIRE has update maps according to JAG allocations and goals and is implementing the management direction. These maps may need updating after further action taken by the Board's research and governance structure. | Maps done; implementation ongoing |

⁵ Note the Board's related direction: "...the Research and Science Committee, subject matter experts, Department of Forestry and Fire Protection staff, and members of the public give serious consideration to the JAG's recommended silvicultural prescriptions for each of the landscape allocations as the Board moves forward with development of a research governance structure and strategic research plan."

| Task | Responsible Parties | Process/Notes | Start and Completion Dates |
|---|---|--|----------------------------|
| <p><u>1.5 Silviculture</u> Rather than the silvicultural constraints suggested by the JAG for each of the landscape allocations, the Board will instead rely upon the Board's research governance structure, Department of Forestry and Fire Protection staff, and subject matter experts to develop the silvicultural prescriptions appropriate to each of the allocations.</p> | <p>Board's research governance structure Research and Science Committee Board and CAL FIRE staff</p> | | |
| <p><u>1.6 Centers of Excellence</u> The Board endorses the concept of <i>Centers of Excellence</i> but does not adopt it as a hard structure for implementation. The Board's research governance structure will need to develop direction for application of this concept.</p> | <p>Board's research governance structure Research and Science Committee Board and CAL FIRE staff</p> | <p>Consider climate change mitigation and adaptation as potential Center of Excellence (from RSC discussion)</p> | |
| <p>2. Research Governance Structure The Board assumes the responsibility for developing a research governance structure for JDSF with the assistance of the Board's Research and Science Committee, subject matter experts, Department of Forestry and Fire Protection staff, and the public. The Board, in general, supports the governance structure concept developed by the JAG.</p> | <p>Board's research governance structure Research and Science Committee Board and CAL FIRE staff subject matter experts the public.</p> | <p>This is a critical step to be taken by the Board and its Research and Science Committee. Anticipate that action on this will begin after work on the Strategic Research Plan has made some initial progress. Seek JAG and public input at appropriate junctures.</p> | |
| <p>3. Redwood Region Research Consortium The Board expressly supports the formation of a Redwood Region Research Consortium.</p> | <p>Board's research governance structure</p> | <p>Unfunded consortium may best initially focus on networking, collaboration and infrastructure (e.g., common protocols). Seek JAG and public input at appropriate junctures.</p> | |

| Task | Responsible Parties | Process/Notes | Start and Completion Dates |
|--|---|---|----------------------------|
| <p>4. Research Planning Team The Board endorses the concept of a <i>Research Planning Team</i> but does not adopt it as a hard structures for implementation.</p> <p>The Board's research governance structure will need to develop direction for application of this concept.</p> | Board's research governance structure Research and Science Committee Board and CAL FIRE staff | Uncertain what direction this will take at this time. Anticipate that further direction on this will occur after work on the Strategic Research Plan has made some initial progress. Seek JAG and public input at appropriate junctures. | |
| <p>5. Redwood Research Group The Board endorses the concepts of a <i>Redwood Research Group</i> but does not adopt it as a hard structure for implementation.</p> <p>The Board's research governance structure will need to develop direction for application of this concept.</p> | Board's research governance structure Research and Science Committee Board and CAL FIRE staff | Seek JAG and public input at appropriate junctures. | |

Key JAG Recommendations Summarized

This section summarizes key concepts included in the JAG's January 2011 recommendations report. It is constructed primarily from direct cut-and-paste of key language from the report. It is not intended to fully substitute for the entire content of the JAG report, but to serve as a handy reference, give a basic sense of JAG's intentions, and provide the page references for the full treatment of these concepts in the JAG report. The heading for each section provides the page reference to the major relevant section of the JAG report and the Board's direction regarding the concept.) Although not formally adopted by JAG, Appendix 6 of the JAG report provides an expanded discussion of many of the JAG's research and demonstration related concepts.

Strategic Research Plan (37-40)⁶ (Board: Develop a clear, well-articulated research plan)

A Strategic Research Planning process would integrate an analysis of existing and desired future conditions using proven scientific methods with other key concepts and goals described in the Management Plan and JAG Recommendations. The primary components of our recommended Strategic Research Plan include:

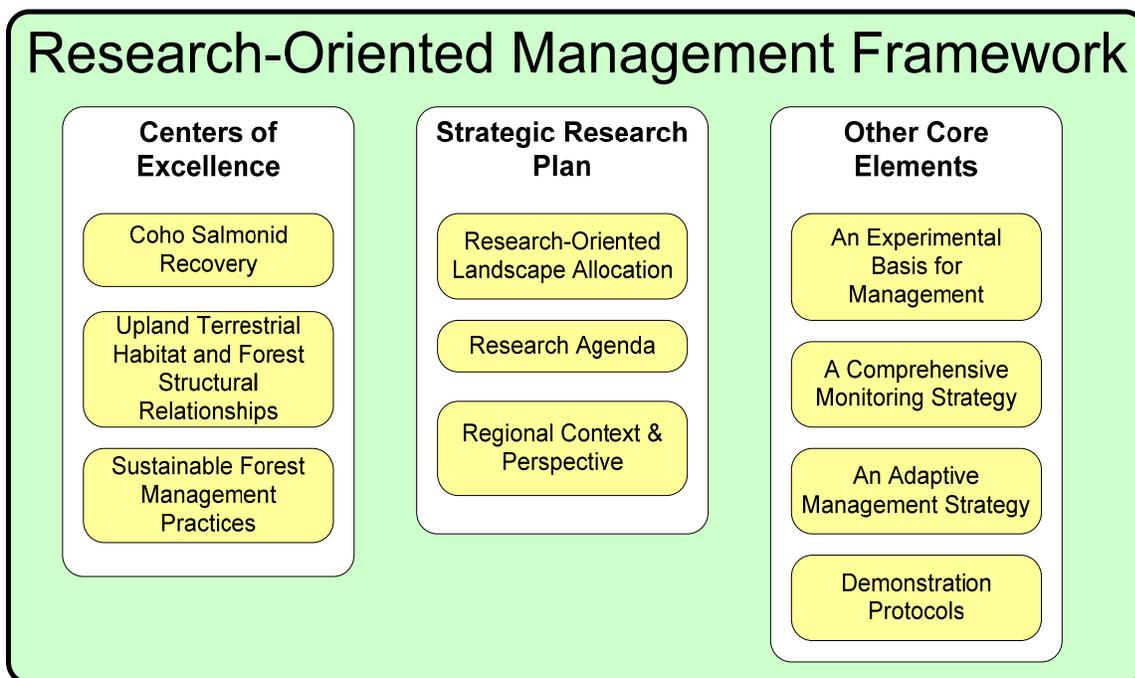
- A Regional Context & Perspective that considers JDSF in the context of management regimes and practices available on other lands, so as to extend the Research Program's relevance to stakeholders throughout the entire Redwood region.
- A Research Agenda that works collaboratively with scientists and stakeholders to develop a list of key issues and management questions related to each Center of Excellence. The
- Research Agenda will provide a framework for identifying desired research projects, monitoring requirements, and management activities needed to support desired research projects.
- A Research-Oriented Landscape Allocation process that carefully and thoughtfully apportion the forest to support research on key issues outlined in the Research Agenda, as it will establish the context by which research is crafted and documented.

Research Oriented Management Framework (35-36) (Board: Further develop and specify the concept)

The long-term objective for a Research-Oriented Management Framework on JDSF is to provide a transparent and objective scientific basis for forest management in California's redwood region. A scientific basis describes a rational system of technical information, models and other tools that inform policy and management, and collectively describes the methods for achieving sustainable economic, ecologic, and social stewardship of the forest.

The proposed Framework would integrate several key concepts (each described below) that together provide an organizational structure for testing and improving forest policies and practices both within JDSF and throughout the Redwood region (and perhaps beyond). This Framework should be organized around Centers of Excellence that describe the state-of-the-art science using models that range from simple conceptual models to more detailed empirical and/or quantitative models. Such models would provide organizational rigor that could provide a structure for scientists and would over time, improve the ability to predict impacts associated with management practices and enable management to achieve ecological goals.

⁶ Page number references to JAG Report, January 2011.



The framework should also consider a Strategic Research Plan that leverages the Forest's resources to the benefit of core management issues. Such a Strategic Research Plan would integrate the efforts related to Centers of Excellence with the operational management of the forest. It would identify and implement a landscape allocation that better supports research activities, and would provide a structure for organizing relevant research at a regional and/or state-wide scale.

Over a period of a few years, this Research-Oriented Management Framework should lead to the development of formal management systems (combinations of regulations, policies, practices and Adaptive Management) that would provide important tools and management models for other landowners.

The proposed Research-Oriented Management Framework should be designed to provide more than sufficient opportunities to generate substantial revenues while meeting all the other goals of the forest (as described in both the Management Plan and these JAG recommendations). Additional Core Elements for the Research-Oriented Management Framework are described in greater detail within Appendix 6C.

Centers of Excellence (36-37) (Board: Consider for further study and potential implementation)

JAG describes “centers of excellence” as “integrat[ing] multi-disciplinary research in a manner that would resolve complex (often difficult) management challenges,” (JAG Report p. 10). JAG recommended three centers of excellence for JDSF:

- **Coho Salmon Recovery and Restoration of Aquatic Communities** – To rapidly recover aquatic communities by understanding the integration of watershed process and functions using both active and passive restoration processes.
- **Upland Terrestrial Habitat and Forest Structural Relationships** – To understand habitat and population processes and develop predictive models of animal/plant/ habitat dynamics of upland species on a continuum from younger to older forests.
- **Sustainable Forest Management Practices** – To understand and develop improved stand development pathways that integrate sustainable timber harvesting in the context of aesthetics, ecosystem management, timber growth and yield, forest product quality, carbon sequestration, and development of older forest conditions.

Administration and Governance (48) (Board: Assumes the responsibility for developing a research governance structure; in general, supports the governance structure concept developed by the JAG.)

The administration and governance of the Research-Oriented Management Framework could be developed in coordination with the Board’s Research and Science Committee, as well as the Research Planning Team, Redwood Research Group, and Redwood Regional Consortium.

Redwood Regional Consortium (48) (Board: Seek the formation thereof)

Formation of a Redwood Region Consortium is an integral part of implementing the Research Framework. It positions JDSF within an integrative entity that unites efforts across the Redwood landscape by acting as a Hub for collaborative research that includes private and public lands. As such, this Consortium would differentiate itself from similar cooperatives by primarily drawing its participants from scientists employed by agencies, consultants, landowners, research scientists and other applied forestry practitioners (as opposed to strictly research-oriented organizations). Within the Consortium, JDSF’s role can be a resource that provides data, funds and logistical support as well as part of the land base for research. Similarly, Consortium members can provide support for advancing research implications through adaptive management and policy revision efforts. In addition, members can provide financial support through in-kind services and additional funding. JDSF’s lead in forming and sustaining a Consortium also increases the relevance of JDSF to stakeholders. Finally, the ability to manage and conduct meaningful research at landscape-scales is greatly improved by collaborating with other landowners throughout the Redwood region. CAL FIRE could look to Washington (e.g., Washington’s TFW) and Oregon (H.J. Andrews Forest) for models of functioning Research Cooperatives that involve a broad group of stakeholders.

The consortium would differ from the Redwood Research Group in that the Consortium would exist as a collaborative group of stakeholders and partners, while the Group would consist of paid staff dedicated to implementing the Research-Oriented Management Framework.

Research Planning Team (44-46) (Board: Consider for further study and potential implementation)

a Research Planning Team should be compiled to provide important technical review, analysis and recommendations that will help JDSF develop a Strategic Research Plan that will guide the transition toward a Research-Oriented Management Framework.

The purpose of the Research Planning Team is to provide professional recommendations to the JAG and Board of Forestry and Fire Protection regarding the allocation of forest structure, age

and composition for the forest that is best suited to supporting the Centers of Excellence, consistent with the guidance provided by JAG and adopted by the Board of Forestry and Fire Protection.

JAG would note that the allocation classes described in the approved management plan have been amended substantially by the JAG to increase the quantity of old forest structure and enhance habitat connectivity. JAG's recommended landscape allocations are made based on the full range of Goals articulated in the Management Plan. The JAG advises the Research Planning Team to be cognizant of those Management Plan Goals when making its recommendations. The rationale for deviations from JAG's recommended allocations should be articulated in the Research Planning Team's report. Both the Research Planning Team recommendations and the JAG's recommendations regarding them should be delivered to the Board of Forestry and Fire Protection for consideration in determining the final allocation.

We would like the team to be as inclusive and collaborative as possible, given recognized constraints of the work being performed by an outside contractor. We would expect the team to engage the Board of Forestry and Fire Protection's Research and Science Committee, USFS Pacific Southwest Research Station, JDSF staff and JAG, among others.

Our vision is that CAL FIRE would refine the scope of work (outlined in the JAG report) such that the team could produce its deliverables within 6-9 months. We also prefer that JAG be provided some time to respond to the Planning Team's report before the Board acts on its recommendations. A key outcome of the Research Planning Team's work is the presentation of landscape allocation alternative(s) for the forest that if adopted, will create, maintain or develop the forest structures needed to support an applied research agenda focused on the proposed Centers of Excellence over a planning horizon of approximately 40 years.

The Research Planning Team should develop its detailed work plan in consultation with the Board of Forestry and Fire Protection's Research and Science Committee, JDSF staff and JAG. Before the analysis is initiated, the Research Planning Team will convene at least one 'immersion session' with JAG to understand this group's principles and recommendations. In addition, JAG and the Research Planning Team will meet when team has outlined the core elements of its analysis but before it initiates the analysis. Periodic status check-ins during the analysis and alternative development will be administered by the Chair of JAG and the Deputy Director of CAL FIRE.

Redwood Research Group (46-47) (Board: Consider for further study and potential implementation)

The effective implementation of the Research-Oriented Management Framework and the overall Research Program should be led by an organization whose mission is to establish and maintain the Centers of Excellence through research, coordinated monitoring, advocacy, education, outreach, and policy advisement.

We recommend that research, demonstration, and monitoring programs at JDSF should be managed, administered and staffed by a broadly based research organization that is affiliated with, but semi-independent from, CAL FIRE and JDSF operations. This will enable JDSF Management to focus on the day-to-day management and operations on the Forest, while developing the organizational infrastructure to support the Centers of Excellence and other research tasks.

The organization should consist of professional staff of interdisciplinary scientists dedicated primarily to a research and/or monitoring mission (e.g., interacting with, but not necessarily directly associated with, JDSF operations). It could be led by senior scientist(s) and/or an Executive Director team, and it would substantially benefit by seeking funds beyond JDSF revenue sources (e.g., research grants, foundations, partnerships, etc). The organization should seek to coordinate research activities beyond JDSF properties where it serves a Center of Excellence, and it should provide extensive outreach and educational roles to all stakeholders (including academic scientists). It should collaborate closely with academic researchers, but as an applied research organization, may benefit by being outside of an academic institution.

This organization could exist in various forms (e.g., An independent 3rd-party entity, independent CAL FIRE center, within JDSF, within a University Extension, as a multi-agency cooperative, etc). The Board should carefully consider the advantages and disadvantages to these various structures.

We recognize that the implementation of the Redwood Research Group may take several years to occur. Thus several of the governance and administration functions may require additional oversight during the interim.