



## Applicant Guidance for Developing FRWRM Fuels & Forest Health Project Proposals

### Purpose

This document serves as a guide to help FRWRM applicants develop the key components of successful fuels and forest health projects proposals. It outlines critical elements that should be included in application narratives to develop competitive and effective proposals.

### Project Goals and Objectives (Section D):

The [CFRI Monitoring Handbook](#) (See Pg. 8, “Identifying Monitoring Questions and Metrics”) offers guidance for developing goals and objectives that support project monitoring and monitoring effectiveness. While this guidance is monitoring-focused, quality project goals and objectives should always be developed with monitoring effectiveness in mind to ensure lasting impacts of project work.

**Goals** define the general direction or desired outcome of treatment efforts and provide more general targets for a value to promote or a risk to mitigate (i.e., reducing wildfire severity). **Objectives** establish measurable benchmarks to track progress toward achieving those goals and serve as indicators of goal achievement (i.e., increase torching index). Therefore, goals and objectives should complement each other.

Goals should clearly address *specific* values to be addressed or risks to be mitigated through forest management. Objectives can then be developed to provide measurable criteria to assess whether the goal has been met. While some goals, like improving forest resilience, are longer-term and harder to measure directly, others such as reducing wildfire severity, can be supported by clear, quantifiable metrics.

The overarching goal of the FRWRM program is to reduce wildfire risk to people, property and infrastructure in the WUI, while promoting forest health and restoration and the utilization of woody material. Individual project goals and objectives should align with these stated Program goals.

**Developing for the FRWRM Application:** Accessing local knowledge and expertise is key to developing strong goals and objectives. We strongly recommend reaching out to your [local CSFS field office](#) and/or local forestry partners for assistance. These experts can help identify realistic goals and develop measurable objectives with applicants and landowner input.

Project goals and objectives should be incorporated throughout the application, particularly in:

- Section J. Project Area Description and Current Conditions: Explain what is at risk in the treatment area and how it connects to your goals.
- Section K. Project Prescription and Scientific Foundation: Show how proposed management actions are designed to meet your objectives.

This allows your goals and objectives to become the foundation that ties your proposal together, guiding both the narrative and the metrics by which success is assessed.

Forestry professionals with local knowledge regarding existing forest stand structure can readily identify structural elements of forest stands that support goals and clarify actionable objectives.

### Examples:

- **Too vague** - Goal: “Promote forest health”; Objective: “Reduce density”
- **Improved** - Goal: “Promote forest health by managing pest pressure”; Objective: “Reduce density of western spruce budworm (WSBW) host tree species to promote tree vigor”

These elements should then be linked within:

- Section J. Project Area Description and Current Conditions by quantifying WSBW host species present in the current stand, and
- Section K. Project Prescription and Scientific Foundation by describing how reducing host species density can limit WSBW population growth.

## Project Area Description and Current Conditions (Section J)

This section allows applicants to describe the current state of the treatment area and the need for the project. Applicants should communicate both the physical context of the area (e.g., surrounding communities, infrastructure, utilities, etc.) and the risks present (e.g., disturbance, development pressure, etc.). This helps reviewers understand what values are at stake and what could be lost without intervention.

Applicants should also describe the treatment area itself, not just its surroundings. While full inventories aren't required or always feasible, providing quantitative data where possible greatly strengthens the application. We recommend working with local forestry professionals to assess current conditions.

Numerous metrics can be used to describe aspects of the stand, especially those that increase risk of losing key values (e.g., uncharacteristic wildfire). An extensive list of metrics can be found in the [CFRI Monitoring Handbook](#). A few commonly used examples are provided below.

### Example Metrics:

- Canopy cover: the ratio of canopy to bare ground from a bird's-eye view
  - Can be estimated using Google Earth
- Species composition and relative %
  - Requires walking around site to assess the relative density of certain species
  - Arrange species by relative drought or fire tolerance using local expertise/existing literature (Silvics of North America is a great resource)
- Basal area: cross-sectional area of tree at breast height (4.5 ft/1.37m)
  - Can be estimated using a prism (more intensive to determine, and may require expert consultation)
  - Consider breaking down by species as well
- Characterize potential disturbance agents (insects, pathogens, parasites etc.)
  - Relative levels (i.e., high, medium, low) are acceptable where precise data is not available

### Example Tools for Current Conditions:

- [TreeMap](#)
  - Provides structural estimates (i.e., basal area, trees/ac, species composition, etc.) across the U.S. using FIA plot data and machine learning
  - Useful for quick approximations, but should not replace field-based assessments when available
  - Note: TreeMap approximates structural characteristics based on existing FIA plots and should be used as a rough approximation rather than an inventory and applicants should note when they derive information from it
- [Colorado Wildfire Risk Assessment \(CoWRA\)](#)
  - Provides statewide maps showing estimates of flame lengths, wildfire risk and other metrics that can be used to identify relative risk from wildfire across the Colorado Forest Action Plan
  - Mainly the composite priority map (required), but other themes and strategies can be helpful in justifying treatment needs
  - Note: All maps included with your application must be clearly labeled, and their relevance and significance to the project must be explained within the application narratives

**Developing for the FRWRM Application:** This section is your opportunity to assess and describe your treatment area both qualitatively and quantitatively. The goal is to establish how current forest conditions put values at risk and why management is necessary. The objectives (from section D.) are not the primary focus here, but you should begin to set the stage for how your proposed management (section K.) will address current structural issues.

Given the technical nature of this section, working with local forestry experts is incredibly important. While full inventories may not be possible, local CSFS foresters or other local forestry experts *may* be able to walk the area with landowners and help characterize stand conditions and provide guidance on composing the narrative for this section. Contacting local experts as soon as possible will provide a better chance of receiving assistance.

Applicants can use the tools and metrics suggested here as well as those in the [CFRI Monitoring Handbook](#) to characterize areas with little existing data. The appropriate level of assessment will vary by project type. For example, Home Ignition Zone (HIZ) projects should characterize current conditions by citing the [CSFS HIZ guide](#) and

make references to existing vegetation within certain proximity to structures. Open space treatments or those on parcels/HOAs with few structures require more detailed descriptions of forest structure and conditions.

If local expertise is unavailable, the CSFS monitoring program may be able to assist. The earlier you reach out, the better. Strong characterization of current conditions, both qualitatively and quantitatively, greatly improves application quality and facilitates clearer connections between existing risk, planned management, and project outcomes.

Use this section to highlight **what is at risk, why, and how your metrics support that risk assessment**. This naturally leads into section K., where you describe your plan to address those risks.

## Scientific Foundation and Prescription Section (Section K)

This is where the “rubber meets the road” and you explain what management actions will be taken and why. Be specific about management activities, clearly linking them to the structural metrics described in section J. to highlight what will be targeted for removal/be retained during management, and the outlined objectives (Section D.)

The scientific foundation supports why certain management actions are proposed, while the prescription describes what will be done on the ground. There is a list of great resources within the Supplemental Information section of the RFA to get applicants started.

**Developing for the FRWRM Application:** This section often requires forestry expertise, especially for applicants without a strong forestry background. The focus here is to link objectives (section D.) to management actions and use data from section J. to support the reasoning behind your prescription.

Be as specific as space allows. Strong applications clearly demonstrate how each action supports a specific objective and contributes to broader project goals. Avoid generalizations and instead provide evidence-based justifications. Use existing literature and resources (see RFA’s Supplemental Information section) to support your choices.

### Examples:

- **Weak linkages:**

- Goal: Promote climate-adapted species
- Objective: Favor drought-tolerant species
- Management Action: Remove ponderosa pine and Douglas-fir

Issue: These species are generally more drought-tolerant than others like white fir or blue spruce, indicating a mismatch between objective and action. This is why local expertise and understanding is necessary.

- **Strong linkage:**

- Goal: Reduce wildfire severity
- Objective: Raise canopy base height
- Management Action: Remove trees <6” DBH to raise canopy base height from 10’ to 20’

Justification: Using GTR373 as a resource “Current vertical fuel continuity creates risk for crown fire. Historically, ponderosa pine forests had fewer ladder fuels and more even-aged structure (Addington et. al., 2018). We will remove small white fir trees and retain large ponderosa pine to reduce ladder fuels and crown fire potential.”

In the case of the above ‘strong linkage’ example, instead of reducing overall tree density through thinning, talk about target tree species and sizes to emphasize that point. You can state that the intent is to reduce density of trees below 6” diameter to raise canopy base height from 10 to 20 feet (if that type of data is available), otherwise linking available literature to management actions is appropriate. In the above example, without knowing what the current canopy base height is, using a resource like GTR373 will help paint the picture. Therefore, management will focus on removing ladder fuels, especially white fir ladder fuels, and retaining ponderosa pine to reduce the likelihood of transmission of wildfire from the surface to the crown, thus reducing potential crown fire activity and raising canopy base height.

By clearly linking project goals and objectives (section D.), current conditions (section J.) and the management prescription (section K.), you build a coherent and compelling case for funding. Substantiate your actions with site-specific information and support them with existing literature where appropriate.

Applicants should also be careful to consider ecological mismatch. Given that much of the empirical information we have in this state regarding forest management and its impact on subsequent fire behavior is based in the lower montane (i.e. ponderosa pine and dry mixed-conifer), this can result in assumptions about other forest types (e.g., spruce-fir) that may not be ecologically accurate. Again, this highlights how local expertise and knowledge can be critical at this stage of application development. Asking for assistance in understanding these nuances therefore becomes key because we do not expect applicants to conduct a full literature review for their FRWRM application, and these items can be readily contextualized by local expertise, whether it be a CSFS Field Office or a local collaborative group. In places where local expertise is hard to find, there are options to work with our Monitoring Program for assistance, but it requires that you communicate early to ensure the best chance of strengthening applications.

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