DRAFT

Designing Results-Oriented Performance Measures for the National Wildland Fire Management Program

Views from Program Managers
Expectations from Program Stakeholders
Proposed Strategic Performance Logic Model

January, 2002

A Report Prepared for the U.S. Department of Interior and the USDA Forest Service by:



The Performance Institute



The Performance Institute
311 N. Washington Street Suite 200 Alexandria, VA 22314
Tel: 703-519-6270 Fax: 703-519-6271 www.PerformanceWeb.org

Project Director
Carl D. DeMaio

Project Consultants
Marion Frost
Felipe Monroig
David Parker

Agency Representatives
Tim Hartzell, U.S. Dept. of Interior
NAME, USDA Forest Service
Miles Brown, U.S. Dept. of Interior

Table of Contents:

Executive Summary

Project Overview and Performance Institute Methodologies

Proposed Strategic Performance Logic Model

- End Outcomes
- Intermediate Outcomes
- Outputs and Workload Measures

Major Themes and Observations from Internal and External “Performance Dialogues”

Next Step Recommendations

Appendix 1: Transcript of External “Performance Dialogue” with Stakeholder Representatives

Appendix 2: Bibliography and Related Reports

Appendix 3: About The Performance Institute

Executive Summary:

Project Overview and Methodologies:

Background

Over the past decade, the United States has experienced a dramatic increase in the number of large and intensive wildland fires. As a result of the increased number, size and intensity of wildland fires, there has been a significant increase in the amount of money and resources spent to combat and suppress wildland fires as well as the economic and ecological impact of such severe and large-scale damage on the communities and environments that they impact. Not counting resources from state and local governments as well as private and non-profit organizations, the Federal government alone spent over $2 billion in 2000 on activities to respond to and suppress wildland fires.

As a result of the severe impacts of wildland fires and the associated increase in public expenditures to combat them, the Congress directed the federal land management agencies to work in partnership with the Governors on a national long-term strategy to enhance fire preparedness and suppression capacities as well as to restore of fire-prone ecosystems. The result was a comprehensive 10-year plan, outlining the goals for the Wildland Fire Management Program with the goal of creating "a collaborative approach for reducing wildland fire risks to communities and the environment." The plan was adopted in August of 2001, and includes a series of principles, goals and actions, intended to improve prevention and suppression of wildland fires, reduce hazardous fuels, restore fire-adapted ecosystems and promote community assistance.

In addition to requesting the creation of an integrated plan, the Congress also requested the development and implementation of strategic performance measures for all wildland fire initiatives across the various federal agencies and among the various levels of government. If properly developed and implemented, these performance measures would help ensure that the federal agencies and state and local partners are working together in a collaborative and coordinated manner, that the goals set forth in the 10-year plan are reached, and that the over-arching mission of the Wildland Fire Management Program is achieved in the most effective way possible.

Towards that end, the Performance Institute was contracted to assist in the development of performance measures for the Wildland Fire Management Program. Through a series of internal and external dialogues and stakeholder meetings, the Institute worked with program managers and stakeholder representatives on clarifying program performance expectations, cataloguing possible ways to measure performance, and evaluating different ways of reporting performance. Using a "Logic Model" approach, the Institute then constructed an outcome-based performance measurement framework, specific to the work of the Wildland Fire Management Program and aligned to the goals set forth in the 10-year comprehensive plan. That "Logic Model" along with

observations and recommendations from internal and external program representatives are outlined in this report.

In order to produce the Logic Model, the Institute conducted the following activities:

- Expert survey of the pertinent issues and current measures
- Internal planning meeting with fire staff
- External stakeholder meeting
- Performance Institute review and analysis of internal and external dialogues
- Performance Institute interaction with fire staff on measurement sources and data
- Final analysis and production of final report.

The Performance Institute's Methodology

The Performance Institute is a private think tank that serves as the nation's leading authority and repository on performance-based management practices for government agencies. The Institute has worked in almost every mission area addressed by government, assisting in the development of organizational strategy, restructuring of program structures, and the implementation of effective performance management systems.

The Institute uses a comprehensive methodology specifically constructed to address the complex management realities faced by government agencies. The methodology features two frameworks: *The Strategic Logic Model* which maps the issue environment faced by a program as well as the strategic rationale behind specific program activities and *The "SMART" Performance Measurement Criteria* which guides in the development of performance measurements and the selection of data sources for evaluating program effectiveness. When linked together, this two-phase framework provides a solid foundation for the creation and implementation of a fully operational "performance management system" for government programs.

In its analysis of government performance issues and formulation of its recommendations for management improvement, the Institute mixes its internal expertise in strategic and performance management practices with the views of internal program managers and external stakeholder representatives. As such, throughout the course of a project, the Institute facilitates several planning and discussion sessions with internal program managers and convenes "Performance Dialogues" with external program stakeholders. The Institute includes a broad range of stakeholders in the Dialogues, including representatives from interest groups, the legislature, program clients, program partners at all levels of government, academia, and in some cases, the general public.

The Strategic Logic Model: Mapping Program Strategy and Setting Course

The Institute's Strategic Logic Model framework begins with a Strategic Issue Assessment that maps the rationale behind a government program clarifying statutory mission, outcome goals, strategies, program activities and resource allocation considerations. The Assessment uses a top-down, sequential approach to analyzing issues faced by a government program with the objective of evaluating and identifying the most potent strategies and activities the program can undertake to achieve desired results. The Assessment often requires a mix of issue research, program evaluations, best practice analysis, and scenario modeling. The Strategic Issue Assessment forms the foundation of a programs "strategic plan" and plays a major role in policy formulation and justification. In the case of the Wildland Fire Management Program, the 10-Year Comprehensive Strategy accomplished most of the requirements for the Assessment.

Strategic Issue Assessment Model



Figure One

After the Strategic Issue Assessment is complete, the Institute creates a "Strategic Performance Logic Model" that maps the various goals, strategies and activities outlined strategic plan in measurable ways. The Strategic Performance Logic Model allows for the management of the program as a whole, demonstrating the relationship and synergies among various program activities and allowing for on-going evaluation of not only management issues, but program policies and strategies…and eventually end-outcome results. As such, the Strategic Performance Logic Model contains only the most important and indicative performance measures of the program.

When employed and examined as a whole, the Strategic Performance Logic Model "tells the story of the program" and provides impetus to support various budgetary and programmatic initiatives key to achieving the goals of the program. The Logic Model arrays performance measures in a way that they act like stepping stones, keeping the program on track, on time, and on budget. It is the Strategic Performance Logic Model that represents a government program in the aggregate, big-picture sense and is most widely used and understood by policymakers and program stakeholders in an oversight capacity judge the success of the program at each step of implementation.

The Strategic Performance Logic Model is based on four primary components: End Outcomes, Intermediate Outcomes, Outputs and Inputs. Working backwards from the end outcomes, the model enables the program to not only report whether results (End Outcomes) are being achieved long term, but demonstrate progress in executing various strategies (Intermediate Outcomes) through specific program activities (Outputs) and budgetary decisions (Inputs).

The Strategic Performance Logic Model

Inputs	Outputs	Intermediate Outcomes	End Outcomes
"Amount of resources devoted to a program activity"	"Tabulation, calculation, or recording of activity or effort, expressed in a quantitative or qualitative manner."	"Direct influences and impacts that the outputs of an agency have on short-term, leading indicators. These can be seen in changes in 1) Attitudes 2) Behaviors 3) Conditions"	"Assessment of the results of a program activity compared to its intended purpose."

The SMART Performance Measurement Criteria: Measures that are Meaningful

Once the Strategic Performance Logic Model is constructed, a more detailed and activity-oriented performance measurement system must be devised for day-to-day management purposes. The inherent difficulty in developing and implementing any system of performance measures is ensuring that an organization is measuring the right things, and is measuring them in verifiable and valid ways. In the past, government programs have selected performance measurements that are too process- and activity-oriented, are not reported in

standardized or verifiable ways, or impose heavy data collection and reporting burdens on the "front line" managers without providing significant insight for management decisions.

In assisting government programs with the development of a comprehensive set of performance measures, the Institute uses the "SMART" Performance Measurement Criteria. The SMART Criteria are used to determine the usefulness, validity and accuracy of the performance measures to be used by the program at all levels.

The "SMART" Performance Measurement Criteria state that in order for a performance measure to be effective, it has to be:

1. **Specific**
   The performance measure has to indicate exactly what result is expected so that the performance can be judged accurately. The specificity of the measure is aided by clear definitions and standards for data collection, standardization and reporting across program lines and among program employees involved in use of the measurement.

2. **Measurable**
   The intended result has to be something that can be measured and reported in quantitative and/or clear qualitative terms. This characteristic is achieved when programs set numeric targets or employ an evaluative approach that can ascertain in a definitive manner whether performance expectations have been met.

3. **Accountable**
   The performance measure has to be "owned" by a specific program line or employee base to the degree that someone, or some group, is held accountable for the performance measure to ensure that the results are indeed produced. Accountability is more than clarifying who is charged with achieving the result; it requires that management has devised targets based on what reasonably can be produced by the program during a given period of time. Accountability cannot be achieved if targets are unreasonable from the start.

4. **Results-oriented**
   The performance measure must be aligned to the "Strategic Performance Logic Model" and track an important value or benefit needed to advance the strategies and achieve the end results of the program. A performance measurement meets this test if it 1) measures an end or intermediate outcome or 2) links to another measure already existing within the program that measures an intermediate or end-outcome.

5. **Time-bound**
   The performance measure must set a specific time frame for the results to be produced as well as allow for the reporting of performance in a timely manner. In this case, the program must have measures to provide fresh enough data to be used by management for adjustments in the program and corrective action if necessary.

Strategic Performance Logic Model for the Wildland Fire Management Program

(NOTE: In the proposed Strategic Performance Logic Model, the Performance Institute intentionally refrains from setting specific performance targets. Target formulation is the responsibility of program management after careful issue analysis. As such, this report uses only "%" and "#" as placeholders where targets would be.)

(INSERT GRAPHIC WITH MEASURES IN CHART FORMAT)

Mission:

The first step in defining the Strategic Performance Logic Model is to define the statutory mission of the program. Once the mission is clearly defined, a series of outcomes and measures can be developed that work toward achieving that mission. The Institute say no need to refine the mission of the Wildland Fire Management Program as set forth in the 10-year Comprehensive Strategy, which sought to create "a collaborative approach for reducing wildland fire risks to communities and the environment."

End Outcomes:

End Outcomes are the results that all activities funded and conducted under the national Wildland Fire Management Program are intended to produce. End Outcomes can be best identified as answering the question: How will society benefit from the Wildland Fire Management Program? The answer to this fundamental question helps define end outcomes as the "bottomline" for the program.

Through its analysis of the program and the Performance Dialogues with internal and external stakeholders, the Institute identified three categories of End-Outcomes. If the Wildland Fire Management Program is successful, society reap the following benefits:

1. **Reduction in the Loss of Life and Damages to Communities as a Result of Wildland Fires:** Improved capabilities in the management of wildland fires will lead to an overall reduction in the impacts to individuals and communities threatened by wildfire. These impacts cover the unwanted impacts of wildland fire, including loss of life, damage to homes and community infrastructure. Furthermore, a reduction in the commercial disruption caused by wildland fires will lead to a reduction in overall economic consequences as a result of these fires.

2. **Improved and Maintained Resilience and Sustainability of Wildland Ecosystems:** Improved resilience and sustainability of wildland ecosystems promotes environmental social and economic benefits to communities. Resilience and sustainable wildland ecosystems will benefit and maintain water quality, soil productivity and stability, wildlife and fisheries habitat, air quality, and at risk species and the habitat that support them. Fire plays a key role in establishing these conditions in fire-adapted ecosystems.

3. **Increased Opportunities for Communities to Gain Sustainable Economic Benefits from Wildland Fire Management:** Communities will

benefit economically and socially from increased use of local contracts and employment, utilization and expanding biomass markets, and job training associated with prevention and restoration activities. These opportunities should not increase fire overall management program costs.

These three end-outcome categories emerged during both the internal and external dialogue sessions, with participants identifying a number of results to be produced within each category. In addition, a cross-cutting outcome was discussed during the Performance Dialogue with external stakeholders that focused on "Creating an Infrastructure for Inter-Governmental and Multi-Party Collaboration." Some stakeholders argued that this was a unique end-outcome specifically to be achieved for society by the Wildland Fire Management Program. Others argued that this "Collaborative Infrastructure" was a critical pre-cursor or intermediate outcome necessary for achieving the first three end-outcomes and thus was not a fourth separate end-outcome.

Upon further probing, the Institute discovered that many of the stakeholders who advocate listing "Collaborative Infrastructure" as an end-outcome were motivated in part by their concern that without "Collaborative Infrastructure" being given end outcome status it may be too easily overlooked. Significant concerns were voiced about an over-emphasis on national or federal implementation approaches to the detriment of local authorities, views and capacities.

While the Institute's expertise in outcome measurement does not endorse the inclusion of "Collaborative Infrastructure" as an end outcome, it is clear that none of the three end outcomes can be achieved without it. As a result, the Institute suggests that "Collaborative Infrastructure" measures be included as a cross-cutting intermediate outcome—ensuring that implementation efforts of the 10 year strategy are conducted within a cooperative and collaborative infrastructure and decision making approach.

Measuring the Reduction in the Loss of Life and Damages to Communities as a Result of Wildland Fires

1. Reduce the number of fatalities among the general public as a result of wildland fire (# annually)

2. Reduce the number of firefighter fatalities as result of wildland fire (# annually)

3. Reduce the number of homes and structures lost as a result of wildland fire (# annually)

Observations:

Measuring this outcome requires the tracking of losses to the human community of wildland fires. The first two measures dealing with human fatalities are pre-existing measures with baseline information and enjoyed widespread support. For the third measure, both internal and external stakeholders suggested measuring the financial loss related to wildland fires but noted that such calculations have been difficult to make and inconsistently calculated in the past. While financial losses have been calculated for large-scale fires, smaller fires do not usually calculate financial losses. As a result, an indicator focusing on the number of structures lost is preferred at this stage.

Several measures were deemed laudable during the Institute's examination of this outcome area, but had drawbacks that necessitate further study before inclusion as acceptable measures. One suggested measure would track the ratio of property threatened to property damaged from "point of discovery" of a wildland fire; there was disagreement on whether data could be collected for this measure. Another measure discussion would track the reduction in smoke-related complaints annually and perhaps even the smoke-related consequences to public health. Data collection challenges as of the writing of this report had yet to be examined. Additionally, some argued that smoke may not decrease as prescribed natural fires (natural ignition) may increase in a healthy-functioning ecosystem.

Another measure proposed dealt with tracking reduction in the intensity of wildland fires, but a specific data source was not identified for this measure. Finally, several participants suggested measuring the reduction in the number of communities at "high risk" of catastrophic wildland fires. In using this measure, careful consideration must be made to clearly defining "high risk" and consistently applying the measure across the nation to ensure validity of data—issues that had yet to be resolved.

Measuring the Improvement and Maintenance of the Resilience and Sustainability of Wildland Ecosystems

1. % of acres meeting defined resource objectives in revised land use plans (% acres annually)

2. Increase to X the percentage of acres burned each year in which the desired ecosystem conditions are achieved or improved. (% of acres annually)

3. Reduction in suppression costs and post-fire rehabilitation costs ($ on cost-per-acre basis and aggregate basis)

Observations:

Measurement of this outcome is difficult as a number of factors outside of the wildland fire issue area impact the quality of ecosystems. Additionally, it is difficult to measure ecosystem health as it requires location-specific examination of a number of interdependent factors (soil, air, water, habitat, etc.) Nevertheless, several indicators of ecosystem health related to wildland fires (and more specifically the role of fire in a naturally-functioning, healthy ecosystem) were proposed. The first measure tracks the achievement of restored ecosystem conditions as defined in local land use plans. While this measure does not track those specific subordinate conditions, it can indicate progress is being made in an aggregate sense. The second measure continues with this logic to examine the state of the ecosystem when fires actually occur based on conditions outlined in land use plans. Finally, the third measure examines a financial indication of ecosystem improvements. As ecosystem conditions improve and as fire resumes a natural and healthy role in the ecosystem, suppression costs and post-fire rehabilitation costs should decline.

Several measures were deemed laudable during the Institute's examination of this outcome area, but had drawbacks that necessitate further study before inclusion as acceptable measures. Some internal and external stakeholders suggested a measure of the percentage of acres where post-fire intervention of restoration and/or rehabilitation is deemed unnecessary. Another measure suggested along these lines was the number of acres allocated to wildland fire use for resource benefit in approved federal fire plans. An alternative view of this condition would track the percentage of acres allowed to burn naturally each year. Ultimately, the three measures chosen above were seen as better ways of capturing the issues addressed by these measures. Some stakeholders also suggested a measure of reduction in post-fire erosion and sedimentation in water bodies; a data source must be identified before this measure can be used. Finally, some stakeholders suggested looking at total number of acres restored in "fire-hazard" regions.

Measuring Increased Opportunities for Communities to Gain Sustainable Economic Benefits from Wildland Fire Management

1. Dollar value of biomass products generated and utilized (annual dollar value of industry)

2. Qualitative Program Evaluation Study: Using representative sample of communities and examining three metrics, determine whether Wildland Fire Management Program had improved, had no impact, or adversely

impacted the ability of communities to grow economically in sustainable ways (evaluation study to be conducted every five years)

a. Overall Health of Local Economy: evaluate aggregate growth rates of communities factoring in regional and national economic conditions
b. Local Employment Opportunities: examine growth in jobs base in and around industries related to wildland fire management program activities
c. Local Industry Base: catalogue shift in commercial activity in community over five years, cataloguing any and all impacts to creation, growth, or contraction of local businesses related to wildland fire management program activities.

Observations:

The first measure tracks the growth in revenue generated by sales of biomass products—indicating economically valuable uses are being found for materials generated as a result of wildland fire management programs. The measure would track the national, aggregate growth of the industry dealing in biomass-related products and services. The second measure would examine economic benefits on a community level, utilizing a qualitative approach requiring an evaluation study to be conducted once every five years. The evaluation study would examine three indicators in a representative sample of 10 communities involved in the wildland fire management program and would determine whether the initiatives related to the program had improved, had no impact, or adversely impacted the ability of communities to grow economically in sustainable ways. It is important that an independent, third party organization be asked to conduct the program evaluation study, that the five sample communities be selected up front, and data collected over a fire year period.

Some stakeholders suggested measuring economic growth rates in selected communities or examining reductions in seasonal or total unemployment rates. While these measures are good indicators of overall progress on economic end-outcomes, a multitude of factors outside of the wildland fire management program make it difficult to realistically assign credit for achievement. Several measures were proposed by stakeholders but reliable data sources could not be identified. Those measures included: reduction in the disruption to commerce as a result of wildland fires; “out migration” due to loss of jobs of individuals living in rural communities; and reduction in insurance rates for communities as a result of reduced wildland fire risk.

Intermediate Outcomes:

Intermediate outcomes are the stepping-stones to the success of the program. Defining intermediate outcomes allows the program to measure its progress on an incremental basis not usually offered by end-outcome measures. They are defined as "direct influences and impacts that the outputs of an agency have on short-term, leading indicators." Intermediate outcomes can best be seen as the strategies by which an agency or organization will achieve its stated end outcomes.

The Comprehensive 10-Year Strategy for the Wildland Fire Management Program provides four solid Intermediate Outcome "Strategic" Goals for the program:

Goal One-Improve Prevention and Suppression of Wildland Fires: The prevention and suppression of wildland fires strategic goal deals with reacting to and confronting an unwanted or out-of-control fire while it is occurring. There is little if any preventative action for future fires that fall under this strategic goal; instead the intermediate outcome consists of suppressing the fire and bringing it under control.

Goal Two-Reduce Hazardous Fuel: This proactive strategic goal is intended to reduce the amount of potential fuels that a fire can feed off of causing more damage. Hazardous fuels can build up through excessive suppression efforts within areas and most of reduction initiatives are handled through prescribed burn efforts at the local levels.

Goal Three-Restore Fire-Adapted Ecosystems: This strategic goal deals with areas already impacted by unwanted and/or ecologically unhealthy burns, pursuing an approach of restoring these areas to a sound ecological equilibrium. By restoring sound and healthy fire-adapted ecosystems, the threat of damaging and dangerous wildland fires can be significantly reduced and the environment measurably enhanced.

Goal Four-Enhance Community Capacities Through Assistance: This strategic goal focuses on enhancing community capacity to fight fires and reduce risk to structures through cooperation, consultation and coordination of efforts across all levels and units of government. As such, this strategy is designed to improve WUI communities' overall contribution to the reduction in both the conditions that encourage fires and in the suppression of actual fires themselves. Most importantly, this strategy focuses on implementation of sustainable growth behaviors and the creation of socially and economically vibrant communities.

For each intermediate outcome goal, the Institute was able to identify key intermediate outcome performance measures to track progress in executing the strategy. In addition, as noted above, the Institute recommends several "Collaborative Infrastructure" measures to track the extent to which harmonious, cooperative and effective partnerships are being forged among levels of government.

Measuring Improved Prevention and Suppression of Wildland Fires

Intermediate Outcome Performance Measures:

1. Percentage of fires controlled during initial attack (percentage of total fires annually)
2. Percentage of unwanted, unplanned human caused fires (percentage of acres burned annually)
3. Percent of identified facilities, positions and operational equipment maintained as identified in fire management plans (Percentage maintained annually)
4. Develop policy-compliant fire management plans for all units with burnable acres by 2003 (yes/no)
5. Percentage of acres covered under fire management plans that are interagency and/or intergovernmental (percentage of acres annually)
6. Finalize Fire-MAP and fully implement by 2009 (create annual milestones)

Observations:

The first measure is intended to calculate the success rate for suppressing fires: if the percentage of fires controlled is high relative to the total number of intended fires started, it indicates that response and suppression capacities are sufficient and effective. Conversely, a low success rate indicates improvement is needed in response. The second measure relates to prevention of unwanted and unplanned wildland fires. The third measure tracks key response capacities. Measures 4, 5 and 6 relate to the planning and assessment intermediate outcomes that need to be achieved to improve preparations for and management of wildland fires.

In addition to the measures above, stakeholders suggested measuring the percentage of fires where control is lost or devising another suitable measure for tracking success and capacity with initial attack endeavors. Other stakeholders suggested defining and measuring improved quality of firefighting personnel at federal, state, local and private levels.

Measuring Reduction in Hazardous Fuels

Intermediate Outcome Performance Measures:

1. % of acres in the desired condition class (% annually of total acres reaching desired condition class)
2. % of fuel treatments (mechanical or fire) that lead to the improvement in class score (Grade 1-3)
3. Manager satisfaction with usable applied research addressing hazardous fuel management information needs (annual survey of sample of wildland fire managers)
4. # of acres on or immediately adjacent to federal lands deemed to be extreme-risk to high-intensity fire (number annually)
5. # of acres on or immediately adjacent to WUI communities deemed to be extreme-risk to high-intensity fire (number annually)

Observations:

(Add Tim's paragraphs on condition class for first two measures.) The third measure uses a random sample survey to track manager/program partner satisfaction with the adequacy of the applied research base and tools being generated for the wildland fire management program. The survey would track manager evaluation of the adequacy of the fuels management tools and information base. Measure 4 and 5 track acres deemed to be at extreme risk adjacent to federal lands (reflecting federal progress) or adjacent to WUI communities (reflecting community progress.)

No other significant measures were proposed for tracking progress with fuel treatments.

Measuring the Restoration of Fire-Adaptive Ecosystems

Intermediate Outcomes Performance Measures:

1. Percentage of acres of highest priority areas restored (percentage of acres annually)
2. Percentage of results monitoring performed for post fire rehabilitation treatments, by project (percentage of acres annually)
3. Percentage of results monitoring performed for fuel treatments, by project (percentage of acres annually)
4. Percentage of public lands where prescribed fire absent mechanical treatment is sufficient in achieving resource objectives. (percentage of acres annually)

Observations:

The first three measures would directly track performance of the program in restoration activities, with the first measure at this stage narrowly defined to focus on highest priority areas (definition pending). As progress is made, this measure can be expanded to included the entire universe of acres or additional priority

levels. The fourth measure is a system-wide indicator that tracks the natural "fire-adaptive" nature of public lands as indicated in revised land use plans.

Several other measures were proposed but have not yet been adopted. One stakeholder suggested measuring protection of "hard-to-quantify" values such as the qualities of viewsheds. Another measure was proposed as a long-range measure of restoration where the need for treatments on public land would be decreased (suggesting the expansion of fire-adapted systems.) Unfortunately, given the present realities, there will need to be an increase in treatments in the short term before a long term decrease would evidence itself. Finally, some stakeholders argued that restoration should be measured in more specific terms, such as % of acreage at high risk of invasive species infestation treated to reduce the rate of spread, # of acres where native plant and seed is introduced, etc.

Measuring Enhanced Community Capacities through Assistance

1. # of acres on or immediately adjacent to WUI communities deemed to be extreme-risk to high-intensity fire (number annually)
2. Increase the number of communities with increased fire management capability and readiness (number annually as measured by maturity model-based survey)
3. Increase number of communities with programs and strategies for risk assessment and mitigation activities (number annually)
4. Number and dollar value of community cost-share projects for wildland fire management (number and aggregate dollar value annually)

Observations:

The first measure is a repeat from a measure under the strategic goal relating to hazardous fuels treatment; it provides a good indicator of community progress with reducing their risk to catastrophic wildland fire. The second two measures deal with community efforts to respond to and combat wildland fires. In order to effectively measure an organization's capability or readiness, a maturity model is strongly suggested wherein fire management experts would identify key characteristics of good capability and readiness. Then, a survey would identify to what extent each community met those characteristics. In addition to providing a solid measure, this maturity model would identify priority areas requiring investment and action; in doing so, it serves as both a measurement tool and a gap analysis tool for planning and corrective action. The final measure would use investment as a financial indicator of community capacity to maintain a wildland fire management effort.

Some of the other measures suggested included: percentage of acres on private land meeting defensive space standards; number of communities and homes

made fire resistant; extent of fire resistant landscaping and home development techniques; and reduction in total population living in high risk areas.

Measuring Collaborative Infrastructure

As the Wildland Fire Management Program requires the efforts of multiple federal, state and local government agencies—and individual and business cooperation—building a collaborative infrastructure in and around the program is paramount to the success of this initiative. As a result of the importance of collaboration, six performance measures should be used to track the extent to which collaboration is occurring:

1. Partner satisfaction rate as determined annually through survey of sample of wildland fire program partners. (annual)
2. Number of contracts awarded locally and the dollar value of the contracts (annual, number and aggregate dollar value)
3. Number of community agreements/partnerships between various levels (number annually)
4. Reduction in lawsuits and legal action related to fire management program and restoration activities (annual)
5. Increase percentage of fire management plans developed with community involvement
6. Multi-party monitoring is standard operating procedures for projects (%)

Observations:

Carl to include paragraph based on stakeholder commentary

Outputs and Workload Measures:

Outputs are defined as the "tabulation, calculation, or recording of activity or effort, expressed in a quantitative or qualitative manner." Outputs track the actual things that a program does to execute their strategies (intermediate outcomes) to achieve results (end outcomes.) Outputs are used to align the various component programs and initiatives anticipated by Wildland Fire Management Program to the intermediate outcomes and anticipated results outlined in the 10 Year Comprehensive Strategy. More importantly, outputs allow for the linkage between budgetary resources and program results.

Additional output and workload measures might be identified by individual program activities for the wildland fire management program. The measures below are representative of the kinds of output and workload measures that would be used by unit managers under each of the four intermediate outcome strategic goals.

<u>Output Performance Measures for Improved Prevention and Suppression</u>

- Increase # of prevention education programs and # of prevention personnel
- Increase # of fire departments trained for Wildland Urban Interface protection
- # of prevention intervention programs and prevention personnel
- # of Fire Management Plans
- # of fire facilities under construction, reconstruction or upgraded
- # of new preparedness personnel hired/supported
- # of new equipment purchased or upgraded
- # of additional aircraft leased
- Improve modeling capability for preparedness

<u>Output Performance Measures for Reducing Hazardous Fuels</u>

- # of fire/fuel projects initiated in Wildland area; # of fire/fuel projects initiated in WUI area
- # of awareness campaigns, outreach programs, and technological assistance programs
- # of local contracts awarded to implement hazardous fuel reduction
- # of projects in monitoring status
- % of Wildland Urban Interface area with planned fuel treatments
- Completion of refined Wildland Urban Interface/Hazardous fuel management prioritization initiative
- % personnel trained to conduct prescribed burns
- # of acres using mechanical treatments

Output Performance Measures for Restoring Fire-Adapted Ecosystems

- Number of total project acres on which burned area emergency stabilization and rehabilitation "treatment specifications" were implemented
- Development of fire management plans for all administrative units across agency or administrative boundaries (ie. Eco-regional based plans)
- Number of Land Use Plans revised/completed
- Number of approved burned area emergency stabilization and rehabilitation plans
- Number of research projects funded to improve knowledge deficiencies (# on effective restoration; # generating improved understanding of short-term impacts and long-term benefits of wildland fire management activities)

Output Performance Measures for Enhancing Community Capacity

- Number of local contracts and task orders awarded for implementation
- FireWise concepts implemented in WUI communities (number of workshops, number of seats filled)
- Percentage of financial assistance requests funded
- Percentage of technical support requests met by appropriate entity
- Number of informed media articles/letters to editor increasing positives views and reducing negative attitudes
- # of technical and $ financial assistance provided for priority projects and incentives to facilitate the development of markets for under-utilized small diameter wood products through fuel treatment activities

Major Themes and Observations:

1. Collaboration and Coordination among Federal, State and Local Government

One of the most obvious and cross-cutting concerns among the different groups of stakeholders is that the efforts of the Wildland Fire Management Program be coordinated effectively between the different levels of government. Local and State stakeholders expressed repeatedly that their experiences in the past have led them to be leary of working collaboratively with the Federal government for fear that partners from the Federal level will often act according to their own objectives without consulting with and/or including the local and state stakeholders in decisions and activities. The Program managers at all levels will need to be aware and engaged partners.

Effective lines of communication are then going to be crucial tools in the successful implementation of the 10-year plan, and in achieving the end outcomes. Open dialogue and constant engagement between all levels of government and non-government stakeholders will be critical. If groups are left out of the loop in the decision-making process, then the entire partnership begins to unravel.

The communication between the different levels of stakeholders is so important in fact that many people from the different stakeholder organizations expressed outright that their first, and in some cases their most important goal in establishing the Wildland Fire Management Program is to develop a truly effective collaborative infrastructure.

Which is no small feat: an effective collaborative infrastructure is very difficult to build and maintain, and countless programs have failed to achieve their end outcomes as a result of a collapse in the lines of communication. The effective infrastructure requires a thoughtful approach, and determined follow-through over the course of the entire Program.

2. Consultation with All Interested Parties

One key to maintaining open dialogue and an effective collaborative infrastructure is consulting all interested and involved parties at each step of the Program decision-making process and in conducting Program activities. Time and again stakeholders expressed concern that other partners in the Program might act unilaterally, making decisions without any group consensus and including no other points of view in their decision-making processes. A successful collaborative infrastructure will maintain an open dialogue with all involved parties, keeping them

engaged in the process and focused on helping to achieve the end outcomes.

3. Emphasis on Local Participation, Direction and Implementation

Another important component to the success of the Wildland Fire Management Program is the effective implementation of strategy on the ground. In order to achieve this implementation to maximum effect, the Program must have full participation and cooperation at the local level. There must be a great deal of emphasis placed on engaging the local stakeholders and keeping them involved in the Program, through the lines of communication, through consultation, through effective use of the collaborative infrastructure. The local perspective is not only an important consideration in any strategy or activity decision-making process, but buy-in at the local level ensures that implementation of any activity on the ground will be maximized.

Additionally, organization and direction of activities at the local level is an effective use of both experience and resources. Local partners know the lay of the land and they know the neighbors. They are the most effective and valuable resources for implementation of strategy on the ground, and it will be important to keep them engaged.

If the local partners feel fully engaged in the program and the process, their efforts will be immensely more effective than if they feel like they are being superceded and being given marching orders of one kind or another.

4. Balancing and Integrating the Various Facets of the Mission

One of the first things that is readily apparent in listening to the many different stakeholder objectives and concerns, and in reviewing the 10-year plan, is that there is a certain tension among the different missions and agendas presented within the Wildland Fire Management Program. The different groups participating have very different motive and goals. For example, from the stakeholder dialogues, one of the outcomes is "increase the amount of acres allowed to burn naturally," yet another of the goals is to "reduce the number of communities living in high-risk areas."

One goal is to "increase acres allocated to wildland fire use for resource benefit in approved federal fire plans," and another is to "meet community needs in/near wildland areas – jobs, economic development, protection, participation."

These goals and missions are not necessarily mutually exclusive, but there is definitely some creative tension that exists between certain groups of stakeholders and their respective concerns and objective. It is similar, of course, to the creative tension that exists between nature itself and the migration of more people into the rural west. It requires a balanced and even approach in order to integrate all the components of the Program successfully into one over-arching strategy and one 10-year plan that achieves its goals and makes the rural west a safer, cleaner, ecologically healthy and economically sound environment. It will require that the mangers at all levels balance the concerns and goals of the different stakeholders.

And it will require that the Department of the Interior and the Wildland Fire Management Program are going to have to develop and provide a vision of success that the stakeholders can all share. Through the collaborative infrastructure, the Program must maintain the sense of community among the partners and maintain the vision of all the different goals and objectives integrated into one sweeping and effective plan.

5. Aligning and Coordinating Among Federal Fire Agencies

Part of that balancing act is going to have to occur within the Wildland Fire Management Program as well, integrating the objectives, strategies and activities of the different federal agencies. There are several federal agencies involved in the program, and each of them has a unique mission, and a unique perspective on the wildland fire issue. It will be important to integrate the strategies and coordinate the efforts of the different agencies in order to work effectively together inside the same framework.

From information sharing to allocation of resources to coordination of efforts, there must be a major concerted effort to bring all of the different agency objectives and activities into the single focus and the single performance framework as established by the Wildland Fire Management Program in order to meet its rigorous goals.

6. Managing Culture Change

Within all levels of government and within the non-government stakeholder participants, difficult change will have to occur. No longer are organizations focused on activities, they are focused on end outcomes. Instead of pushing processes, they are pushing ideas. Instead of measuring hours spent and dollars spent, they are measuring outputs and intermediate outcomes. All very easy to say on paper, of course, but so difficult to implement in an organization that has operated in one fashion for many years.

Overcoming cultural and internal resistance to such changes is always a daunting task and it will require effective management at all different levels within the Program. Communication, again, will be crucial to the success of the Program, and the success of each agency and organization as they cope with a new performance-based strategy and framework: it is absolutely critical that everyone in the organization, from the top down, understands specifically what it is that the program is trying to do and how they specifically contribute to that.

Again, the creation of effective open lines of communication will play a vital role in achieving that success. If all the participants really understand how their activities work toward the end goal, and how certain organizational changes will help them to reach that end goal, then those participants are much more likely to accept the necessary changes and adapt more quickly and effectively. Good change management also requires that managers provide not only direction to the participants, but shows them the results of their efforts as well. If an employee can see tangible results of their efforts and how those efforts are advancing the mission of the organization or Program, the positive reinforcement is invaluable.

Clear consistent management is required to keep those lines of communication open, and to make sure that all participants are engaging in the process though.

That may require yet another tool for implementing change within an agency or organization: the effective training and education of managers. In order for managers to create and maintain the necessary lines of communication and the dialogue, they have to know, very clearly, what it is they are trying to change, what it is they are trying to achieve. Managers must understand the new performance-oriented framework and be able to communicate it effectively to others. Managers must know all the components and how they integrate with each other and with the overall mission of the agency, of the organization, of the program. They must understand in clear terms how the framework achieves the end goals of the 10-year plan for the Wildland Fire Management Program.

Skills training and education for managers regarding the Program goals, the performance measures, and the communication skills will build the organization's internal capacity to define and affect and manage change within that organization.

7. Focusing on Outcomes and Results rather than Processes and Activities

Be sure that the focus of the Program remains firmly fixed on achieving the end outcomes. It is so common for an organization to set off with the best of intentions and soon find that they are applying performance measures to the wrong things – they are measuring activities and processes instead of outcomes. They find that they are achieving impressive levels of activity, but they are not achieving their over-arching goals. By staying focused on the end outcomes and results, and by conveying that focus throughout the organization, the goals of the organization will be realized in tangible and measurable results.

Use intermediate outcomes as stepping-stones, but be sure not to lose sight of the end outcomes. Intermediate outcomes are important for several reasons: they are a guide, showing performance and results along the way toward the end outcomes, and they are a strong motivational force for employees who are then able to see tangible measurable results of their efforts all along the way to reaching the end goals. Be sure not to let intermediate outcomes cloud the vision of end goals though. Communicate clearly how the intermediate goals help the organization and the Program achieve the end outcomes.

8. Balancing Accountability for Outputs vs. Responsibility for Intermediate Outcomes and End Outcomes

Another important aspect of keeping an organization focused on intermediate outcomes and end outcomes for the Wildland Fire Management Program will be balancing accountability for outputs against the responsibility for outcomes. Managers and partners are directly accountable for their outputs. The outputs will be tangible and measurable, and performance will indeed be measured. So the output stage of the logic model will obviously be very important for managers – it has the most direct bearing on their lives.

However, it is so important for those managers and partners to remain devoted to keep in mind the intermediate and end outcomes at the same time as they focus on achieving their output goals. It is too easy to lose sight of the end outcomes while managing the important day-to-day activities and responsibilities.

Managers must maintain their sense of responsibility to the end outcomes, even as they struggle with their accountability for the outputs.

9. Improving Science and Information Base

Another challenge to the Wildland Fire Management Program is going to be data management. There are two primary concerns there: 1. the quality of data used, and 2. the management of relevant data.

Firstly, stakeholders expressed concerns that data used to make decisions within the Program was not as accurate or as rigorous as it could be, or as it *should* be in some cases. It will be important to improve the quality and accuracy of scientific data to ensure that decisions are being made based on good information and that there can be consensus on that decision.

Secondly, it will be important to improve the methods of data management and dissemination. Accurate and relevant data has to be reported, collected, disseminated and evaluated across many levels of government and between many different agencies and organizations. This will require clear and consistent management to ensure that the information is properly handled, and that each of the stakeholders both participates in the exchange of information and benefits from the pooled resources as well.

One result of properly managed information will be a more efficient process by which funds are allocated correctly to Program activities based on performance and priority. If the accurate relevant information is reported, collected, disseminated and evaluated properly, then decisions about where the money goes will be significantly easier to make, and so will the justifications as they are necessary. A manager will be able to decide effectively where to allocate funds based on performance and priorities. A manager will be able to clearly indicate, in quantitative terms and tangible results, the rational behind those funding decisions.

And stakeholders will be confident that reliable data was used in the decision-making process.

10. Clarifying Definitions and Standardizing Data Collection

It is crucial to the success of any coordinated efforts that definitions are clear and consistent throughout the program framework, and that those definitions are applied all through the many different organizations and agencies that participate. Stakeholders expressed some concern about the clarity of definitions as they all prepare to embark on the mission of the Wildland Fire management Program, and they expressed some frustration about the lack of clarity that they have experienced in the past while working in collaborative environments.

If an effective collaborative framework is indeed established and maintained, and if each of the stakeholders – local and national – are indeed consulted along the way to implementing strategy and the performance framework, then this clarification of definitions should occur naturally. Regardless of how easy or difficult it is to clarify definitions the though through dialogue, it is still going to be critical to the Program that those definitions be consistent throughout, and that the information is managed well in order to maintain clarity.

11. Minimizing Political Considerations in Favor of Strategic Considerations

Stakeholder also stated a great deal of concern that there are many external factors that will affect decision-making within the Program, and that these factors will play some role in implementation of any strategic framework for operations. National politics, internal politics, government regulation, international events, natural occurrences, etc. – they will all affect the Wildland Fire Management Program and effectiveness of the implementation.

And while it will be impossible to completely eliminate politics from the strategy and from the implementation of the Program, it will be important to the integrity of the Program and to the partnership of all the individual stakeholders to try and maximize the influence of the strategic framework and minimize the influence of external politics as much as possible.

12. Addressing Program Implementation Challenges

Lastly, stakeholders identified, through the course of meetings, specific challenges that they see to the long-term implementation and success of the collaborative framework, the performance strategy and the 10-year plan for the Wildland Fire Management Program. Aside from voicing concerns about and stressing the importance of open communication between the different levels of government to the collaborative framework, they identified what amounts to a specific list of issues and topics that they feel could have significant bearing on the outcome of the Program and the success of the 10-year plan.

Specifically, the issues that they identified at the meetings are:

- Budget Resources – Stakeholders say there is not enough of it, and they express concern about making sure that the funds allocated make it into the right hands and get spent properly.

- Preparedness – Stakeholders feel there ought to be a greater implementation capacity and suppression capacity within the Program to respond to situations as they occur.

- Training – Firefighters need to be better trained and better managed, with more equipment made available for training purposes, more standards established and safety concerns addressed.

- Micromanagement – There is the impression that very often professionals in the field are not allowed to exercise their judgment and utilize their experience due to directives issued by far-removed agency and organization managers.

- NEPA – Time and again stakeholders expressed frustration with the amount of time, energy and money spent complying with NEPA requirements.

- Application of Science – Stakeholders would like to see an emphasis on the developing science in the field, especially as it applies to new tools and strategies for maintaining a healthy eco-system and sustaining healthy communities.

- Local Knowledge – Concern was expressed that not enough emphasis was being given to local knowledge of issues and local participation, including having local landowners participate in strategies and activities aimed at protecting their own property and structures.

- Restoration – Several comments were made along the lines that restoration efforts should be significantly beefed up, with more resources such as native seed, with more workforce to implement, and more long-term dedication to the effort.

- Public Education – Concerns exist that not enough is being done to educate the public to existing threats, policies and science, as well as treatments, preventative measures and strategies that they could be actively involved with.

- Rewards – Stakeholders expressed the view that not enough is done to establish any kind of reward system for individuals and groups that do indeed take on a level of accountability and are successful in their work and efforts.

- Backbone – Concerns were expressed that there is often a lack of political as well as social willpower to see programs and projects of this nature through to the end.

- Economic Development – Stakeholders want to see the program invest in local businesses, develop local jobs at livable wages, and help develop sustainable community and economic growth and opportunity.

- Flexibility – There are concerns that both the strategy and appropriations that come with it ought to include mechanisms that allow them to be flexible to the changing needs and priorities of communities and activities on the ground implementing.

As is evident from the stakeholder comments, there are many goals and many perspectives, and many concerns. One of the foremost concerns throughout this dialogue is communication, participation and the maintenance of the collaborative framework whereby information is shared, and all parties are included in the decision-making process. Many stakeholders see this challenge as the primary obstacle to successful implementation of the performance framework and the success of the Wildland Fire Management Program.

A first step toward keeping the lines of communication open and establishing the collaborative infrastructure is going to be the continuation of this meeting, the dissemination of this very information, and the reconvening in one form or another of this meeting of stakeholders to maintain the conversation, maintain the participation, maintain the forward momentum.

It cannot be stressed enough how important it is to keep open the flow of ideas and the consensus among the Program partners. It requires a tremendous amount of dedication to manage the flow of information and to keep all the partners engaged and involved, but the payoff in the end – at the end of this 10–year implementation – is a tremendous success for the Wildland Fire Management Program.

Next Step Recommendations:

1. **Align program activities to the logic model (Annual Performance Plans)**
   Aligning program activities to the logic model is the crucial next step for the Wildland Fire Management Program. It is this step that brings all the activities inside the framework and ensures that they contribute in a meaningful – and measurable – way to the goal of achieving the intermediate and end outcomes as they have been set forth. Identify and evaluate each of the program activities in order to be sure that they integrate with the overall mission and determine how each activity will enhance the program.

2. **Identify and Evaluate the data sources for each measure**
   Without accurate data that is valid and verifiable, there is no way to implement a real performance measurement framework. If data is unreliable or cannot be confirmed, then there is no way to accurately assess how the activity or output is performing, or whether or not the performance measure is being met.

   Identify specifically what data sources you are going to use to determine each of the stated performance measures, and be sure that everyone participating is very clear about which data is being used for which measure, and how that data is being collected, and where that data is being stored, and who has access to that data.

3. **Reconvene sessions with stakeholders internally and externally**
   Be sure that stakeholders are kept in the loop in each stage of developing and implementing performance measures and performance strategy. Reconvening meetings with stakeholders allows everyone to remain engaged in the process, allows for a free flow exchange of ideas, and allows consensus to develop within the Program. It also ensures that all perspectives, objectives and missions are integrated successfully into the Program which in turn will assist in ensuring that implementation occurs at the most important level of all – on the ground, in the wildlands, during fire season.

4. **Consult with OMB, GAO and Congress on proposed model**
   OMB, GAO and Congress have established specific guidelines and best practices for the development of performance measures and performance management models. They also provide and approve the budget for the Wildland Fire Management Program. Consult with the organizations to ensure that your proposed performance model meets their criteria and to inform them of your efforts and results.

5. **Establish Baselines**
   Your measurements mean nothing if you have nothing to compare them to. Be sure to establish very thorough and accurate baseline data for each of your performance measures so that you can determine how your efforts and outputs are performing. Understand exactly where you are starting from as you embark on the implementation of the performance framework and the implementation of the 10-year plan.

6. **Set Targets**
   Once you have established baselines for each of your performance measures, you can set effective targets for the Program to strive toward. Set reasonable goals, and be sure that they are specific and clear. Be sure that everyone involved knows exactly what the target is, and how to get there. Establish targets that will guide you toward your end outcomes.

7. **Align Resources**
   Once you have brought all the activities into the framework, you have determined accurate reliable data sources and baselines, and you have set targets, it is time to align resources to the performance measures. Ensure that targets are met and performance goals are being achieved by aligning activity and program resources to the specific measures. Tying performance to the budget ensures that managers and staff will remain focused on achieving their performance goals and moving effectively toward the stated end outcomes.

About The Performance Institute:



The Performance Institute
"Transferring Knowledge to Transform Organizations"

Defining Strategies, Designing Programs and Measuring Performance in Government

The Performance Institute is a private think tank that serves as the nation's leading authority and repository on performance-based management practices for government agencies. Our mission is to identify, study and disseminate the leading management innovations pioneered by 'best-in-class' public-sector organizations.

Through national conferences on pressing issues, interactive executive training programs, best practice research and strategic consulting services, the Institute provides cutting-edge expertise in the design, implementation and evaluation of strategies to solve operational challenges, improve customer service and enhance organizational performance.

The Institute offers consulting and training to federal agencies, allowing them to access comprehensive and experience-tested methodologies for achieving radical transformations within their programs and workforce. To achieve these transformations, the Institute specializes in:

Focusing on Outcomes

Recognized as a national authority on performance measurement in government, the Institute helps agencies define measures for "hard-to-define" outcomes.

Identifying Breakthrough Strategies

Whether for an external policy issue or an internal operational challenge, the Institute has recognized thought leaders who develop and implement clear and potent strategies for government.

Evaluating Program Effectiveness

The Institute's use of *program logic modeling* and *intermediate outcome measures* solves the challenge of tracking and reporting program-specific contributions to end-outcomes.

Redesigning Program Structures

"If we weren't already doing this today, would we start doing this tomorrow?" The Institute's approach devises answers to this fundamental, yet rarely asked, question and proposes options for redesigning agency program structures and processes.

Aligning Resources to Results

The Institute's methodology for transforming or aligning traditional budget structures for use in performance budgeting has been used by Congressional appropriators and agency budget officers alike.

Facilitating Stakeholder Dialogue

Unlike a "customer-focused" business, government deals with customers, legislators and other stakeholders. As a result, the Institute's approach relies heavily on soliciting and incorporating the input of stakeholders into the planning and performance measurement selection process.

Managing Organizational Change

Performance measures are only powerful when they are used by agency leadership and managers. As such, the Institute cascades strategies and performance goals to an agency's program structure through refined change management techniques.

Enhancing Employee Performance

The Institute drives performance concepts to the individual level through models for human capital planning, workforce assessment and individual employee performance agreements and plans.

Include Complete Transcript of External Stakeholder Dialogue as Appendix