



FINAL REPORT TO THE JOINT FIRE SCIENCE PROGRAM

December 31, 2005

Project Title: *A Regional Information Node for Fire Science¹ in the Pacific Northwest*

JFSP Project No.: 03-4-2-06

Project Location: Seattle, Washington

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¹ Now referred to as the Northwest and Alaska Fire Research Clearinghouse (FIREHouse)

SYNOPSIS

FIREHouse (the Northwest and Alaska Fire Research Clearinghouse; <http://www.fs.fed.us/pnw/fera/firehouse>) is a website providing online access to information about fire science and technology relevant to Washington, Oregon, Idaho and Alaska.

Background

The Joint Fire Science Program (JFSP) and the National Fire Plan (NFP) provide millions of dollars each year to organizations to help reduce fire hazards across the United States. Science delivery and application activities are important aspects of JFSP and NFP scientific activities. Research projects and other activities convey their results in various formats such as publications, datasets, models, and tools. While the results are valuable, the information often resides across multiple systems in different organizations.

In 2003, the JFSP funded our proposal to develop a Regional Information Node for Fire Science in the Pacific Northwest. This project resulted in the creation of the FIREHouse website. In 2005 it was expanded to include Alaska (JFSP project no. 05-4-2-03). The goal of FIREHouse is to provide "one-stop shopping" for resource managers, decision makers, scientists, students, and communities who want access to the results of efforts to understand and manage fire and fuels on public lands in these regions. It is designed to assist fire programs by facilitating access to fire research and associated information. In order to provide more extensive and comprehensive information about fire research, FIREHouse is coordinating efforts with the Fire Research and Management Exchange System (FRAMES; <http://frames.nbii.gov>) project team. Content on FIREHouse will provide substantial contributions to the Northwest and Alaska Geo Portals on FRAMES.

FIREHouse is a collaboration between the Fire and Environmental Research Applications Team (FERA) of the USDA Forest Service, Pacific Northwest Research Station, Pacific Wildland Fire Sciences Laboratory; the University of Washington; the US Geological Survey, National Biological Information Infrastructure (NBII; <http://www.nbii.gov>); the National Park Service; the Bureau of Land Management – Alaska Fire Service; and the US Fish and Wildlife Service.

Accomplishments

The primary deliverable resulting from this project is the FIREHouse website (<http://www.fs.fed.us/pnw/fera/firehouse>), which provides online access to: 1) project and tool descriptions, contact information and links; 2) online publications; 3) proposals and study plans; and 4) metadata. When possible, the web postings describing projects and management tools include a subsection devoted to technology transfer and applications in resource management, as well as an educational component (e.g., a fact sheet) that uses common language and graphics to explain important findings. FIREHouse also offers server space, web and database support for researchers who choose to post their primary data on FIREHouse. The expansion of FIREHouse to Alaska is resulting in two additional products: 1) the Alaska Fire and Fuels Research Map (an online map interface displaying fire and fuels research plot information); and 2) the advancement of the Alaska Fire Effects Reference Database by expanding it and converting into an online, searchable bibliographic database.

The website is available to anyone with access to the Internet. FIREHouse facilitates the rapid dissemination of results to resource managers, decision makers, and the general public. It is also assisting the JFSP in addressing its mission to meet information and technological support needs for wildland fuels management programs across agencies.

As of December 31, 2005, web postings have been created and made publicly available on FIREHouse for 53 projects and 41 sub-projects, representing 49 JFSP-funded projects, 5 NFP-funded projects, and 18 other projects not funded by the JFSP or NFP. Additionally, web postings have been created for another 38 projects and 45 sub-projects (representing 32 JFSP-funded projects, 6 NFP-funded projects, and 11 otherwise-funded projects). These additional postings are not yet available to the public because they are either pending review by the relevant researchers, or have not been submitted for review to the relevant researchers. Between the publicly

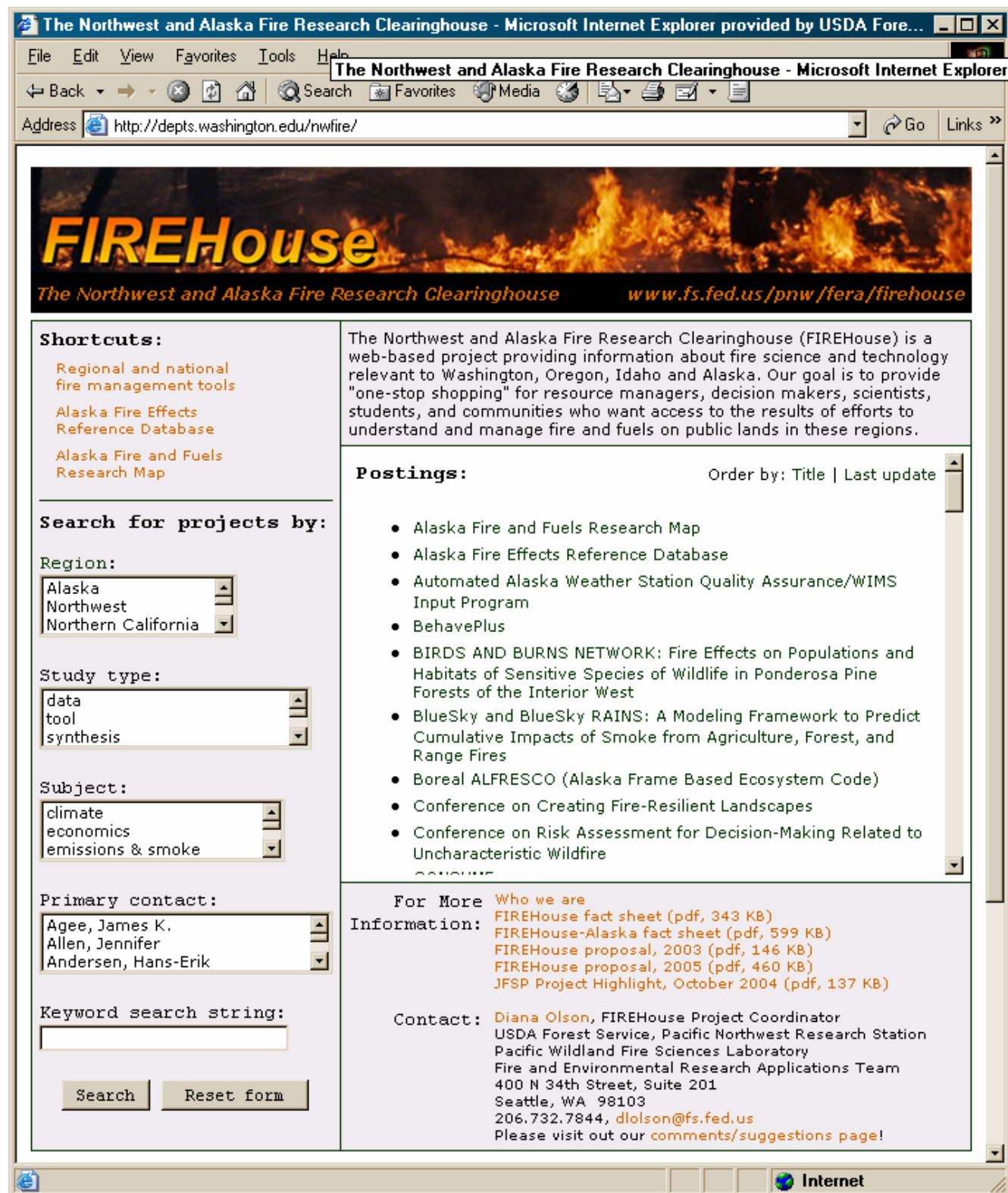
and privately posted web pages, FIREHouse has posted links to 88 websites, has posted or linked to 121 publications (and 11 publication lists) and 29 proposals, and has developed 11 fact sheets (and linked to 33 external fact sheets, or comparable documents). Additionally, FIREHouse has posted links to 14 user's guides or metadata records, and has links to 14 databases or software download sites.

By institutionalizing prompt reporting of fire research in a standard format and making it publicly available on the web, FIREHouse is enhancing the value of scientific activities supported by the JFSP and the NFP, as well as other funding sources. And by making information about Northwest and Alaska fire research more accessible, FIREHouse is helping fuel management programs meet their goals.

Website Design and Database Technology

A Microsoft® Access database was created to store fire research project information (metadata). Information was entered for all JFSP and NFP projects (not just those relevant to the Northwest and Alaska), including the projects funded by the JFSP in 2004 and 2005. Once the accuracy of the information is confirmed, select records from the database are displayed through the FIREHouse website by converting the database from Access to MySQL. The website interfaces with the MySQL database using the PHP scripting language, resulting in an interactive web interface. A user can search for fire research project information by selecting a region, study type, subject, and/or a contact person from pull-down menus, or by typing in a keyword (Figure 1). Alternatively, a user can scroll through a listing of posted projects and sub-projects (ordered either alphabetically or by last update). The FIREHouse website is currently being developed on a University of Washington server (<http://depts.washington.edu/nwfire>), pending either its transfer to a USDA Forest Service server or its integration with the FRAMES website or the NBII website. We expect to begin a crosswalk between FIREHouse and FRAMES (or a crosswalk between FIREHouse and NBII, if necessary) during 2006, as a precursor to the eventual merging of the two projects. However, FIREHouse will remain an independent website throughout the duration of the FIREHouse expansion to Alaska (JFSP project no. 05-4-2-03), i.e., until November 2006, and longer if necessary. This crosswalk with FRAMES (or NBII) will make the information posted on FIREHouse available as more formalized metadata records through NBII, in addition to the information's current availability through the user-friendly interface on FIREHouse.

Figure 1. Screenshot of the FIREHouse website.



Science Delivery and Application Activities

This project was funded specifically to provide a tool for fire science delivery and application. Therefore the development and maintenance of the FIREHouse website is our primary science delivery and application activity. Aside from the website, information about the FIREHouse project has been provided (and website content and improvement suggestions have been solicited) through the activities listed in Table 1. (Upcoming activities are denoted by italics.)

Table 1. FIREHouse science delivery and application activity dates and descriptions.

Date	Venue	Presentation Type
April 2004	JFSP Principal Investigator Workshop	Website “rollout” (oral presentation)
June 2004	NBII All-Node Meeting	Poster presentation
Feb. 2005	Wildland Fire 2005 Conference	Hands-on website demonstration at the JFSP/NFP research booth
May 2005	IUFRO Transfer of Forest Science Knowledge and Technology Conference	Poster presentation
Oct. 2005	NBII All-Node Meeting	Poster presentation
Oct. 2005	Alaska Interagency Fall Fire Workshop and Fire Effects Task Group Meeting	Poster presentation (workshop); oral presentation and website demonstration (meeting)
Nov. 2005	JFSP Principal Investigator Workshop	Oral presentation; also provided an informal, hands-on website demonstration
Nov. 2005	Northwest Fuels Meeting	Oral presentation and website demonstration
<i>March 2006</i>	<i>Fire Behavior and Fuels Conference</i>	<i>Poster presentation</i>
<i>Spring 2006</i>	<i>Fire Management Today publication</i>	<i>Highlight in the “Websites on Fire” section</i>

DELIVERABLES

Table 2. Proposed and actual project deliverables.

Proposed Deliverable	Delivered
Regional workshop for managers and scientists to set priorities for FIREHouse	<p>Rather than hosting a single workshop, we participated in a number of meetings and conferences (many of these are also listed in Table 1):</p> <p><u>Nov. 2003</u>: met with the FRAMES team to initiate our collaboration and set priorities for FIREHouse vs. FRAMES</p> <p><u>April 2004</u>: introduced the FIREHouse project at the JFSP PI Workshop; solicited information and advice from PIs</p> <p><u>May 2004</u>: discussed the FIREHouse project at an ad-hoc technology transfer group meeting</p> <p><u>June 2004</u>: presented a poster at the NBII All Node Meeting</p> <p><u>Nov. 2004</u>: met with the FRAMES Southern Geo Portal team to discuss FRAMES merging with NBII and the role of FIREHouse in the Northwest Geo Portal</p> <p><u>Feb. 2005</u>: provided hands-on website demonstrations at the Wildland Fire 2005 Conference JFSP/NFP research booth</p> <p><u>May 2005</u>: presented a poster at IUFRO Transfer of Forest Science Knowledge and Technology Conference</p> <p><u>Oct. 2005</u>: information included in a poster at the NBII All Node Meeting</p> <p><u>Oct. 2005</u>: presented a poster at the Alaska Annual Fall Fire Review and strategized the content and direction of the project’s expansion to Alaska with the Alaska Fire Effects Task Group (also gave a website demonstration)</p> <p><u>Nov. 2005</u>: gave oral presentation at the JFSP PI Workshop (and provided an informal, hands-on website demonstration)</p> <p><u>Nov. 2005</u>: presented the website and solicited information and advice from fuels managers at the Northwest Fuels Meeting</p>

Table 2 (continued). Proposed and actual project deliverables.

Proposed Deliverable	Delivered
Study plan to JFSP	We did not provide a study plan to the JFSP because the project did not lend itself to a formal study plan.
Website where data, metadata and products from JFSP and NFP will be available online	The FIREHouse website can be accessed through the following URL: http://www.fs.fed.us/pnw/fera/firehouse As applicable, online, searchable access to: 1) project and tool descriptions, contact information and links; 2) online publications; 3) proposals and study plans; and 4) metadata has been made available for 92 JFSP or NFP-funded projects on the FIREHouse website (54 are publicly posted, and 38 are pending review by the principal investigators). Please refer to Appendices 1-8 for detailed lists of JFSP and NFP projects with information posted on FIREHouse.
Prototype Node where all JFSP and NFP data, metadata and products can be made publicly available	We did not develop a Fire Node for NBII, as this is being accomplished through the FRAMES/NBII partnership. We will provide information posted on FIREHouse to FRAMES, once we are able to crosswalk information between the two websites. Information from FIREHouse will contribute to the FRAMES Northwest Geo Portal, the FRAMES Alaska Geo Portal, and other FRAMES regional Geo Portals, as applicable.
Report and publication on a synthesis of data and information	Once it became apparent that PIs were not responding to our offer to post their data on FIREHouse, we shifted our focus to posting metadata for a larger number of projects in a user-friendly manner, allowing users to contact PIs directly when interested in actual project data. Therefore, a data synthesis was not conducted. Similarly, we decided not to focus our resources on a synthesis of general information posted on FIREHouse, primarily because the dynamic nature of FIREHouse (i.e., the continuous addition and updating of information) lends to static syntheses becoming obsolete fairly quickly. We feel that the subject search function on FIREHouse acts as an informal surrogate for topic syntheses. Additionally, the Forest Encyclopedia Network (http://forestencyclopedia.net/), FRAMES and FIREHouse are discussing the possibility of expanding the Forest Encyclopedia Network to the Northwest, and perhaps Alaska. If this evolves into a formal collaboration, it will serve as a more effective tool for providing synthesized information about various regional fire research topics, by building on an existing and successful synthesis project.
Final report to JFSP	This report will serve as the final report to the JFSP for the Fire Node project. A subsequent proposal funded by the JFSP to expand the project to Alaska (05-4-2-03: <i>Expanding FIREHouse [the Northwest Fire Research Clearinghouse] to Alaska</i>) will have a separate final report delivered to the JFSP in November 2006.
Publications in journals and Forest Service series	The website will be highlighted in the "Websites on Fire" section of an upcoming issue of Fire Management Today (theoretically in the Spring 2006 issue).

THE FUTURE OF FIREHOUSE

Throughout the next calendar year (2006), we will continue our efforts to publicly post information for those projects pending review by principal investigators (Appendices 4-6), and we will continue to work to create postings for those projects without information posted on FIREHouse (Appendices 7-8). Additionally, we will create postings for JFSP-funded projects relevant to the Northwest that are funded during fiscal year 2006, as well as additional non-JFSP and non-NFP funded projects. Finally, we will continue to update information for projects currently posted on FIREHouse.

As already mentioned, we expect to crosswalk information provided through the FIREHouse website to the FRAMES website. The FRAMES team is currently developing an online metadata cataloging tool which, once

complete, will enable us to begin the crosswalk between our database and their database. Our current goal is to have the crosswalk complete by the summer of 2006. If, by the end of the project expanding FIREHouse to Alaska (November 2006), we are satisfied that FRAMES is a viable, useful, well-designed site for fire science and technology information transfer, we will release our postings to FRAMES, and exist solely through FRAMES. If other funding permits, we will continue to be involved with FIREHouse through FRAMES, likely by coordinating the FRAMES Northwest and Alaska Geo Portals.

If we are not satisfied with the viability of FRAMES by November 2006, the FIREHouse website will either remain on a University of Washington server, or we will move it over to a Forest Service server or an NBII server. This decision will hinge on the flexibility of Forest Service or NBII information technology capabilities. The continuation of FIREHouse efforts after November 2006 is subject to funding availability.

APPENDICES

Appendices 1-8 are attached below. Listed in the appendices are the projects (funded by the JFSP, the NFP, and other sources, respectively) that have information posted on FIREHouse, the projects that have postings pending approval by principal investigators, and the projects that currently do not have information posted on FIREHouse, but are targets for posting.

Appendix 1. JFSP projects with information posted on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
98-1-1-05	Photo series for major natural fuel types of the United States – Phase II	Natural Fuels Photo Series and the Digital Photo Series
98-1-1-06	Application of a fuel characterization system for major fuel types of the contiguous US and AK	Fuel Characteristic Classification System (FCCS)
98-1-4-14	Assessing values of air quality and visibility at risk from wildland fire	Ventilation Climate Information System (VCIS): A Management Tool for Smoke and Other Pollutants
98-1-7-02	Adaption of the Fuels and Fire Extension to the Forest Vegetation Simulator to meet the objectives of the JFSP	Fire and Fuels Extension to the Forest Vegetation Simulator (FFE-FVS)
98-1-8-03	A national fire effects prediction model---revision of the first order fire effects prediction model (FOFEM)	First Order Fire Effects Model (FOFEM)
98-1-9-05	Implementation of an improved Emission Production Model (EPM)	Fire Emission Production Simulator (FEPS)
98-1-9-06	Modification and validation of fuel consumption models for shrub and forested lands in the SW, PNW, Rockies, Midwest, SE, and AK	CONSUME
98-S-1	Wildland Fire in Ecosystems Publications ('The Rainbow Series')	The Rainbow Series
99-1-1-04	Development and delivery of the Fire and Fuels Extension to the Forest Vegetation Simulator for use by stakeholders of the Joint Fire Science Program	Fire and Fuels Extension to the Forest Vegetation Simulator (FFE-FVS)
99-S-1	Fire and Fire Surrogate Study	Fire and Fire Surrogate Treatments for Ecosystem Restoration
00-1-3-19	Monitoring fire effects at multiple scales: integrating standardized field data collection with remote sensing to assess fire effects	Fire Effects Monitoring and Inventory Protocol (FIREMON)
00-2-31	Restoring mixed conifer ecosystems to pre-fire suppression conditions in Crater Lake National Park	Prescribed Fire Effects on Mixed-Conifer Forests of Crater Lake, Oregon
00-2-34	Fuels treatment demonstration sites in the boreal forests of Interior Alaska	Fuels Treatment Demonstration Sites in the Boreal Forests of Interior Alaska
01-1-1-02	Development of a computer model for management of fuels, human-fire interactions, and wildland fire in the Boreal Forest of Alaska	Boreal ALFRESCO (Alaska Frame Based Ecosystem Code)
01-1-3-12	Effects of prescribed and wildand fire on aquatic ecosystems in western forests	Effects of Prescribed and Wildand Fire on Aquatic Ecosystems in Western Forests
01-1-3-25	Prescribed fire strategies to restore wildlife habitat in ponderosa pine forests of the Intermountain West	BIRDS AND BURNS NETWORK: Fire Effects on Populations and Habitats of Sensitive Species of Wildlife in Ponderosa Pine Forests of the Interior West
01-1-4-07	The use of high resolution remotely sensed data in estimating crown fire behavior variables	Using High Resolution Remotely Sensed Data to Estimate Crown Fire Behavior Variables, Pre-Fire Fuels Loading, and Burn Intensity
01-1-4-09	A novel approach to regional fuel mapping: linking inventory plots with satellite imagery and GIS databases using the Gradient Nearest Neighbor method	Regional Fuel Mapping: Linking Inventory Plots with Satellite Imagery and GIS Databases Using the Gradient Nearest Neighbor Method
01-1-6-01	Fire and climatic variability in the Inland Pacific Northwest: integrating science and management	Fire and Climatic Variability in the Inland Pacific Northwest: Integrating Science and Management
01-1-6-08	Predicting lightning risk	Predicting the Risk of 'Dry' Lightning
01-1-7-02	Photo series for major natural fuel types of the United States – Phase III	Natural Fuels Photo Series and the Digital Photo Series
01-3-3-18	Evaluating the effects of prescribed fire and fuels treatment on water quality and aquatic habitat	Effects of Prescribed Fire and Mechanical Fuels Treatment on Water Quality and Aquatic Habitat
01B-3-2-07	Management of fuel loading in the shrub-steppe	Management of Fuel Loading in the Shrub-Steppe
01B-3-3-26	Fire knowledge for managing Cascadian whitebark pine forests	Fire Regimes of Cascadian Whitebark Pine
01-S-02	Symposia on Fire and Forest Meteorology	Symposia on Fire and Forest Meteorology
03-1-3-06	Fuel consumption and flammability thresholds in shrub-dominated ecosystems	CONSUME

Appendix 1 (continued). JFSP projects with information posted on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
03-1-3-08	Forest floor consumption and smoke characterization in boreal forested fuelbed types of Alaska	CONSUME
03-1-3-09	An automated system for evaluating BlueSky predictions of smoke impacts on community health and ecosystems	BlueSky and BlueSkyRAINS: A Modeling Framework to Predict Cumulative Impacts of Smoke from Agriculture, Forest, and Range Fires
03-1-4-21	Designing an experiment to evaluate effects of fire and fire surrogate treatments in the sagebrush biome	Fire and Fire Surrogate Treatments for Ecosystem Restoration
03-2-3-09	Ecosystem effects and propagation of the Biscuit Fire across the large-scale plots of the long-term ecosystem productivity experiment	Ecosystem Effects of the Biscuit Fire
03-3-2-06	Effects of mechanically generated slash particle size on prescribed fire behavior and subsequent vegetation effects	Effects of Mechanically Generated Slash Particle Size on Prescribed Fire Behavior and Subsequent Vegetation Effects
03-3-3-28	Effects of season of prescribed fire and grazing on understory plant communities in a ponderosa pine forest	Effects of season of prescribed fire and grazing on understory plant communities in a ponderosa pine forest
03-3-3-36	Fuels reduction in oak woodlands, shrub lands and grasslands of SW Oregon: consequences for native plants and invasion by non-native species	Fuels Reduction in Oak Woodlands and Shrub Lands of Southwest Oregon: Consequences for Native Plants and Invasion by Non-Native Species
03-3-3-46	Stereo photo series for quantifying natural fuels in the prairie forest and northwestern Great Plains	Natural Fuels Photo Series and the Digital Photo Series
03-4-2-03	Completion of invasive plant knowledge base summaries for FEIS (the Fire Effects Information System)	Fire Effects Information System (FEIS)
03-4-2-05	Strengthening application of the Ventilation Climate Information System (VCIS) for multiple-scale planning, documentation, and risk assessment	Ventilation Climate Information System (VCIS): A Management Tool for Smoke and Other Pollutants
03-4-2-16	Assessing the risk of decision making related to uncharacteristic wildfires: a 2003 symposium	Conference on Risk Assessment for Decision-Making Related to Uncharacteristic Wildfire
04-1-2-02	Mapping and analysis of pre-fire fuels loading and burn intensity using pre-fire interferometric synthetic aperture radar data	Using High Resolution Remotely Sensed Data to Estimate Crown Fire Behavior Variables, Pre-Fire Fuels Loading, and Burn Intensity
04-2-1-71	Quality assurance of weather data and the probability of favorable weather for prescribed fire in Alaska	Automated Alaska Weather Station Quality Assurance/WIMS Input Program
04-2-1-96	Refinement and development of fire management decision support models through field assessment of relationships between stand characteristics, fire behavior and burn severity	Refinement and Development of Fire Management Decision Support Models for Use in Alaska's Boreal Forest
04-4-1-02	Digital Photo Series	Natural Fuels Photo Series and the Digital Photo Series
04-4-1-04	Development of training resources for application of BlueSkyRAINS in smoke management and fire operations	BlueSky and BlueSkyRAINS: A Modeling Framework to Predict Cumulative Impacts of Smoke from Agriculture, Forest, and Range Fires
05-2-1-07	Post-fire studies supporting computer-assisted management of fire and fuels during a regime of changing climate in the Alaskan boreal forest	Boreal ALFRESCO (Alaska Frame Based Ecosystem Code)
05-2-1-92	Why burning brings beetles: fire-bark beetle interactions	Prescribed Fire Effects on Mixed-Conifer Forests of Crater Lake, Oregon
05-4-1-12	Innovative, 3-D, interactive, and immersive techniques for visualizing, querying, and understanding regional maps of forest vegetation, fuels, and fire risk	Regional Fuel Mapping: Linking Inventory Plots with Satellite Imagery and GIS Databases Using the Gradient Nearest Neighbor Method
05-4-1-21	Development and delivery of version 2 of the Fire and Fuels Extension to the Forest Vegetation Simulator	Fire and Fuels Extension to the Forest Vegetation Simulator (FFE-FVS)
05-4-2-03	Expanding FIREHouse (the Northwest Fire Research Clearinghouse) to Alaska	Alaska Fire and Fuels Research Map <i>AND</i> Alaska Fire Effects Reference Database
05-4-3-06	Modify FOFEM for use in the Coastal Plain Region of the southeastern US	First Order Fire Effects Model (FOFEM)
5-S-08	A regional experiment to evaluate effects of fire and fire surrogate treatments in the sagebrush biome	Fire and Fire Surrogate Treatments for Ecosystem Restoration

Appendix 2. NFP projects with information posted on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
01.PNW.A.1	A modeling framework for real-time predictions of cumulative smoke impacts ("BlueSky")	BlueSky and BlueSkyRAINS: A Modeling Framework to Predict Cumulative Impacts of Smoke from Agriculture, Forest, and Range Fires
01.PNW.A.2	Estimating haze from prescribed and wildland fires	Fuel Characteristic Classification System (FCCS)
01.PNW.A.3	Seasonal prediction of national fire risks and impacts	Mapped Atmosphere-Plant-Soil System (MAPSS) Seasonal Fire Risk Forecasts
01.PNW.A.4	Fuel moisture mapping and combustion limits	CONSUME
01.PNW.C.1	Ground-based support for mapping fuel and fire hazard	Fuel Characteristic Classification System (FCCS) <i>AND</i> Natural Fuels Photo Series and the Digital Photo Series

Appendix 3. Other projects with information posted on FIREHouse.

FIREHouse Posting Title
BehavePlus
Conference on Creating Fire-Resilient Landscapes
Duff Moisture Dynamics in Black Spruce Feather Moss Stands and Their Relation to the Canadian Forest Fire Danger Rating System
Fire and Vegetation History in the Eastern Cascade Mountains, Washington
Fire in Riparian Zones of Dry Pacific Northwest Forests
Foliar Moisture Content of Pacific Northwest Vegetation and its Relation to Wildland Fire Behavior
Forest Fire Regime of the Bull Run Watershed, Oregon
Forest Floor Moisture Content and Fire Danger Indices in Alaska
Fuels Planning - Science Synthesis and Integration: An Interagency Research/Management Partnership to Provide Decision Support for the Management of the Dry Forests of the Interior West
Heat Content Variation of Interior Pacific Northwest Conifer Foliage
Historical Fire Regimes of the Blue Mountains
Historical Range of Variability in Eastern Cascades Forests, Washington
International Multiproxy Paleofire Database: Online Fire History Data (IMPD)
NEXUS: A Crown Fire Hazard Assessment System
Oak Community and Seedling Response to Fire at Fort Lewis, Washington
Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model
Stereo Photo Guide for Estimating Canopy Fuel Characteristics in Conifer Stands
Symposium on the Ecology and Management of Mixed Severity Fire Regimes

Appendix 4. JFSP projects with postings pending on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
98-1-4-10	Fuels management and wildlife habitat: quantity and quality relationships	Fuels Management and Wildlife Habitat
98-1-4-12	Risk assessment of fuel management practices on hillslope erosion processes	Water Erosion Prediction Project (WEPP)
99-1-3-16	Wildland fuels management: evaluating and planning risks and benefits	Fire Effects Planning Framework (FEPF)
00-1-1-03	Changing fire regimes, increased fuel loads, and invasive species: effects on sagebrush steppe and pinyon juniper ecosystems	Great Basin Ecosystem Management Project
00-2-19	Stand and fuel treatments for restoring old-growth ponderosa pine forests in the Interior West (Boise Basin Experimental Forest)	Stand and Fuel Treatments for Restoring Old-Growth Ponderosa Pine Forests in the Interior West
00-2-20	Treatments that enhance the decomposition of forest fuels for use in partially harvested stands in the moist forests of the Northern Rocky Mountains (Priest River Experimental Forest)	Treatments that Enhance the Decomposition of Forest Fuels for Use in Partially Harvested Stands in the Moist Forests of the Northern Rocky Mountains
00-2-30	Fire hazard reduction in ponderosa pine plantations	Fire Hazard Reduction in Ponderosa Pine Plantations
00-2-33	The Lick Creek Demonstration – forest renewal through partial harvest and fire	Forest Renewal Through Partial Harvest and Fire - The Lick Creek Demonstration
01-1-3-21	Cumulative effects of fuel management on landscape-scale fire behavior and effects	Fire Area Simulator (FARSITE)
01-1-3-37	Landscape fragmentation and forest fuel accumulation: effects of fragment size, age, and climate	Landscape Fragmentation and Forest Fuel Accumulation: Effects of Fragment Size, Age, and Climate
01-1-6-05	Climatic controls of fire in the western United States from the atmosphere to ecosystems	Climatic Controls of Fire in the Western United States from the Atmosphere to Ecosystems
01-1-7-14	Decision support methods for prescribed fire	Fuels Program Strategic Analysis (FPSA)
01-3-2-02	Tree regeneration response to fire restoration in mixed-conifer forest	Tree Regeneration Response to Fire Restoration in Mixed-Conifer Forest
01-3-2-08	Risk assessment of fuel management practices on hillslope erosion processes	Water Erosion Prediction Project (WEPP)
01B-3-2-01	Impacts of prescribed burning on the survival of Douglas-fir and ponderosa pine in the Boise National Forest	Impacts of Prescribed Burning on the Survival of Douglas-fir and Ponderosa Pine in the Boise National Forest
01B-3-2-10	Determining the ecological effects of fire suppression, fuels treatment, and wildfire through bird monitoring in the Klamath ecoregion of Southern Oregon and Northern California	Using Birds to Monitor the Ecological Effects of Fire Suppression, Fuels Treatment, and Wildfire
01B-3-3-06	Interactions of burn season and ecological condition on ecosystem response to fire in the mountain big sagebrush communities: information necessary for restoration and postfire rehabilitation	Interactions of Burn Season and Ecological Condition on Ecosystem Response to Fire in the Mountain Big Sagebrush Communities: Information Necessary for Restoration and Postfire Rehabilitation
01C-2-1-02	Evaluating high resolution hyperspectral images for determining postfire burn severity	Evaluating High Resolution Hyperspectral Images for Determining Postfire Burn Severity
03-1-1-22	Fire climate interactions and predicting fire season severity in the Mediterranean Climate areas of California, southern Oregon, and western Nevada	Multi-Century, Multi-Scale Analysis of Fire Regimes and Climatic Variability in the Mediterranean-Climate Areas of California and Southwestern Oregon
03-1-4-11	The effects of grass seeding and salvage logging on fuel loads, potential fire behavior, and the biological diversity of severely burned high elevation southern Oregon forest	Effects of Grass Seeding and Salvage Logging on Fuel Loads, Potential Fire Behavior, and Biological Diversity of Severely Burned Low Elevation Southern Oregon Forests
03-2-3-22	Post-fire erosion and the effectiveness of emergency rehabilitation treatments over time	Post-Fire Erosion and the Effectiveness of Emergency Rehabilitation Treatments Over Time
03-3-2-04	Prescribed burning to protect large diameter pine trees from wildfire - can we do it without killing the trees we're trying to save?	Prescribed Burning to Protect Large Diameter Pine Trees from Wildfire - Can We Do It Without Killing the Trees We're Trying to Save?
03-3-3-57	The effects of prescribed fire season and fire surrogates on crown-fire adapted knobcone pine forests	Effects of Prescribed Fire Season and Fire Surrogates on Crown-Fire Adapted Knobcone Pine Forests

Appendix 4 (continued). JFSP projects with postings pending on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
04-2-1-116	Influence of prescribed fire and wildfire on forest structure and fire severity	Influence of prescribed fire and wildfire on forest structure and fire severity
04-2-1-97	The effect of spring prescribed fires on nitrogen dynamics within riparian and stream ecosystems	Fire and Nitrogen Dynamics within Riparian and Stream Ecosystems
04-4-1-12	Geo-Spatial Wildland Management Tool (GeoWEPP)	Water Erosion Prediction Project (WEPP)
05-1-2-06	Managing fire with fire in Alaskan black spruce forests: impacts of fire severity on successional trajectory and future forest flammability	Managing Fire with Fire in Alaskan Black Spruce Forests: Impacts of Fire Severity on Successional Trajectory and Future Forest Flammability
05-2-1-05	Management options to control exotic invasive plant species in association with fuel reduction treatments in the wildland urban interface	Management Options to Control Exotic Invasive Plant Species in Association with Fuel Reduction Treatments in a Wildland Urban Interface
05-2-1-105	Delayed tree mortality following fire in western conifers	Prescribed Burning to Protect Large Diameter Pine Trees from Wildfire - Can We Do It Without Killing the Trees We're Trying to Save?
05-2-1-41	The effect of wildfire on nitrogen dynamics within headwater ecosystems	Fire and Nitrogen Dynamics within Riparian and Stream Ecosystems
05-4-1-16	Geo-Spatial Wildland Management Tool - Cumulative Watershed Effects Extension	Water Erosion Prediction Project (WEPP)
05-4-1-20	Extending the reach of the Fire Effects Planning Framework by taking a critical approach to science delivery and application	Fire Effects Planning Framework (FEPF)

Appendix 5. NFP projects with postings pending on FIREHouse.

Proposal ID	Proposal Title	FIREHouse Posting Title
01.PSW.B.1	Effectiveness of postfire emergency rehabilitation treatments in the West	Water Erosion Prediction Project (WEPP)
01.RMS.B.5	Factors affecting Great Basin watersheds' susceptibility to invasive plants	Great Basin Ecosystem Management Project
01.RMS.C.2	Impact of fuel management treatments on fire behavior and forest vegetation	Impact of Fuel Management Treatments on Fire Behavior and Forest Vegetation
01.RMS.C.3	Impact of fuel management treatments on forest soil erosion and production	Water Erosion Prediction Project (WEPP)
02.RMS.B.1	Characterizing risks of wildfire and fuels management in aquatic systems	Fire and Aquatic Ecosystems
02.RMS.C.1	Environmental and economic impacts of biomass reduction	Water Erosion Prediction Project (WEPP)

Appendix 6. Other projects with postings pending on FIREHouse.

FIREHouse Posting Title
Congresses on Fire Ecology and Fire Management
FireFamily Plus
Fire History Interpretation Information
Fire-Mediated Changes in the Arctic System: Interactions of Changing Climate and Human Activities
FlamMap
LANDFIRE
Links Between Pacific Basin Climatic Variability and Natural Systems of the Pacific Northwest
North Pacific / Columbia Basin Fire Effects Monitoring Program
Spatial and Temporal Dynamics of Fire and Vegetation Change in the Thunder Creek Watershed, North Cascades National Park, Washington
Spatial and Temporal Variation in Fire Regimes and Forest Structure in the Klamath Mountains and Southern Cascades Mountains in California
Wildland Fire Community Center

Appendix 7. JFSP projects targeted for posting on FIREHouse (not yet posted).

Proposal ID	Proposal Title
98-1-7-01	Developing a standard experimental design and protocol for a national study of the consequences of fire and fire surrogate treatments
98-1-8-01	Development, sensitivity testing, and retrospective application of the fire effects tradeoff model (FETM)
98-1-8-06 (amended)	A risk-based comparison of potential fuel treatment trade-off models: add the Kenai Borough site in Alaska
98-1-9-01	Smoke produced from residual combustion
99-1-2-08	Evaluating public response to wildland fuels management: factors that influence acceptance of practices and decision processes
99-1-3-28	Spatial and temporal analysis of lightning and fire occurrence in Rocky Mountain wilderness areas
00-1-2-04	Fire and invasive annual grasses in western ecosystems
00-1-3-01	The use of Landsat 7 (ETM+) and AVIRIS data to map fuel characteristic classes in western ecosystems
01-1-1-05	Can wildland fire use restore historical fire regimes in wilderness and other unroaded lands?
01-1-2-03	In-woods decision making of utilization opportunities to lower costs of fire hazard reduction treatments
01-1-2-09	A national study of the economic impacts of biomass removals to mitigate wildfire damages on federal, state, and private lands
01-1-3-27	Developing statistical wildlife habitat relationships for assessing cumulative effects of fuels treatments
01-1-3-43	Fires, management, and land mosaic interactions: a generic spatial model and toolkit from stand to landscape scales
01-1-4-14	Advanced remote sensing technologies for monitoring postburn vegetation trends and conditions
01-1-6-07	Assessing the value of mesoscale models in predicting fire danger
01-1-7-06	Techniques for creating a national interagency process for predicting preparedness levels
01-1-7-07	Fire and fuels extension to the forest vegetation simulator: completion of calibration for eastern forests, provisions for user training, and program maintenance
01-3-1-05	Demonstrating the ecological effects of mechanical thinning and prescribed fire on mixed conifer forests
01B-3-3-05	Fuel reduction effects on a key Sierra food web
01B-3-3-16	Effects of season and interval of prescribed burns in a ponderosa pine ecosystem
01C-3-3-10	Restoration of dry, montane meadows through prescribed fire, vegetation, and fuels management: a program of research and adaptive management in western Oregon
01C-3-3-13	Effectiveness of postfire seeding to reduce cheatgrass (<i>Bromus tectorum</i>) growth and reproduction in recently burned sagebrush steppe
01C-3-3-17	Evaluating communication strategies and local partnerships: methods for reducing fuels, sharing responsibility, and building trust
01-S-03	Fire and Climate 2001 Workshop
01-S-04	Climate variability and associated wildfire implications
01-S-06	Additional work for quantification of canopy fuels in conifer forests
01-U-02	Workshop on fire and climate history in western North and South America
02-S-02	Fire in the West: a climate fuels assessment symposium
02-S-03	Symposium on fire and invasive plant ecology
03-1-1-07	Climate drivers of fire and fuel in the Northern Rockies: past, present & future
03-2-1-02	Assessing the causes, consequences and spatial variability of burn severity: a rapid response proposal
03-2-3-01	The effects of fire on Umpqua gentian (<i>Frasera umpquaensis</i>), a rare plant species
03-3-2-05	Effects of prescribed burning on mycorrhizal fungi in Crater Lake National Park
04-2-1-115	Historical fire regimes of the Willamette Valley, Oregon: providing a long-term, regional context for fire and fuels management
04-2-1-14	Effects of disturbance history, landscape pattern, and weather on wildfire severity in southwestern Oregon: implications for management of a fire-prone landscape
04-2-1-17	Effects of fuel reduction treatments on Rocky Mountain elk
04-2-1-52	Productivity and habitat use of spotted owls in relation to fire severity in southwestern Oregon
04-2-1-75	A landscape level approach to fuels management through ecological restoration: developing a knowledge base for application to historic oak-pine savanna
04-2-1-95	The influence of post-fire salvage logging on wildlife populations
04-4-1-19	Training package for land management tools sponsored by the JFSP: Photo Series, FCCS, Consume 3.0, and FEPS
05-1-2-02	Evaluating the efficacy and ecological impacts of BAER slope stabilization treatments on the Pot Peak/Deep Harbor Wildfire Complex

Appendix 7 (continued). JFSP projects targeted for posting on FIREHouse (not yet posted).

Proposal ID	Proposal Title
05-2-1-19	Riparian fuels treatments in the Applegate River subbasin
05-2-1-20	Masticated fuel beds: custom fuel models, fire behavior, and fire effects
05-2-1-37	Mid and long term responses by vertebrate communities and vegetation structure to fire history in mountain big sagebrush
05-2-1-40	Predicting post-fire regeneration needs: spatial and temporal variation in natural regeneration in SW Oregon and N California
05-2-1-44	Impacts of post-fire salvage logging and wildfire burn intensity on soil productivity and forest recovery
05-2-1-70	Comparison of live fuel moisture sampling methods for big sagebrush (<i>Artemisia tridentata</i> spp.) in Utah
05-2-1-87	Effect of brush mastication on the belowground mycorrhizal community in a mixed hardwood chaparral
05-3-1-04	Hybrid source apportionment model: an operational tool to distinguish wildfire emissions from prescribed fire emissions to measurements of PM 2.5 for use in visibility and PM regulatory programs
05-4-1-10	Fuel treatments and forest health: a film and interactive DVD
05-4-1-14	Field training workshops for demonstrating the use of the JFSP sponsored Photo Series and Fuel Characteristics Classification System
05-4-1-23	BehavePlus and FlamMap technology transfer
05-4-2-18	A synthesis of live fuel moisture and wildland fire, and development of a national historical live fuel moisture database
05-4-3-10	FuelCalc: a tool for calculating wildland fuel quantities and qualities and supporting fuel management decisions
05-4-3-15	Integrated analysis for management of fire and fuels, terrestrial and aquatic ecological processes, and conservation of sensitive aquatic species
05-S-07	Accelerating adoption of fire science and related research
05-S-09	1st Fire Behavior and Fuels Conference

Appendix 8. NFP projects targeted for posting on FIREHouse (not yet posted).

Proposal ID	Proposal Title
01.PNW.B.1	Predicting spread of invasive species after fuel reduction treatments and postfire disturbance
01.PNW.C.2	Fuel reduction and forest restoration strategies that sustain key habitats and species in the interior Northwest
01.RMS.B.6	Patterns of white pine regeneration after fire
01.RMS.C.1	Impacts of exotic weeds on fuel loading and fire regimes
01.RMS.C.7	Use of remote sensing to examine disturbance effects
02.PNW.B.1	Response of native and invasive exotic plants to fire and fuel reduction in the interior Pacific Northwest
02.PNW.C.1	Integrated approach for assessing fire risk, disturbance patterns, and conducting analysis of fuel treatment strategies on large landscapes
02.RMS.C.2	Effects of wildland fire and fuel treatments on terrestrial vertebrates in intermountain forests