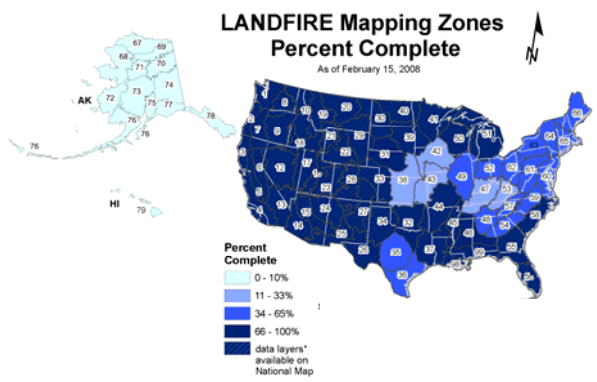




LANDFIRE Schedule & Project Status

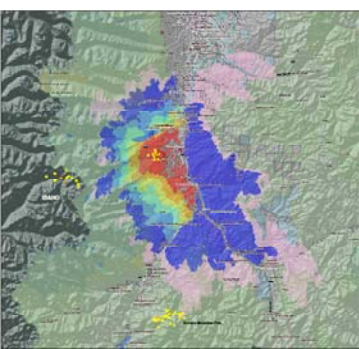
Having produced data products for the western U.S. milestone in 2006, the LANDFIRE team continues mapping throughout the eastern part of the country. To date, 19 zones have been produced for the eastern milestone scheduled for completion in FY08. Data products are uploaded incrementally, and currently data for a total of 40 mapping zones are available for download via The National Map LANDFIRE. Visit the *Data Products* section of the LANDFIRE website (www.landfire.gov) for information on accessing the data. Note also that the *Schedule* section of the website provides up-to-date information on mapping status across the U.S. In addition, vegetation modeling, vegetation mapping, and biophysical gradient modeling have begun in Alaska and planning efforts are under way to meet the final milestone of the LANDFIRE Project: mapping Alaska and Hawaii by the end of FY09.



Visit the *Schedule* section of landfire.gov for the current status of LANDFIRE's mapping progress.

Use of LANDFIRE Data on Fire Incidents in 2007

During the 2007 fire season, LANDFIRE data products were used on over 150 fires to assist managers using the Wildland Fire Decision Support System (WFDSS). The data were used in the Fire Spread Probability (FSPro) module along with the Rapid Assessment of Values-at-Risk (RAVAR) module. The information generated from these models allows fire incident managers to make more informed decisions. LANDFIRE data is unique and valuable because it is consistent across administrative boundaries and land ownerships.



Rapid Assessment of Values at Risk (RAVAR) & Fire Spread Probabilities (FSPro) outputs from WFDSS on the Tin Cup Fire in Montana, August 9, 2007.

In central Idaho, WFDSS provided 30-day fire spread projections across an area including four national forests based on LANDFIRE data. The scope of the situation indicated that a more comprehensive strategy was needed. Fire managers decided

to create a Wildland Fire Situation Analysis (WFSA) to help coordinate fire strategies for the entire area – the scope of which triggered decision-making involving even the Chief of the Forest Service. A WFSA of this scale had not been produced before in the continental U.S. and would have been impossible to create without the seamless data provided by LANDFIRE.

Use of LANDFIRE Data in Natural Resource Management

People are often surprised to learn that LANDFIRE data products have much wider-reaching applications than simply in the fire realm. The full project title is the “Landscape Fire and Resource Management Planning Tools Project,” but it is commonly referred to as the LANDFIRE Project. Following are two examples of ways in which LANDFIRE data are being used for natural resource applications:

► **Modeling Grizzly Bear Density using LANDFIRE Data: NW Montana, November 2006**

– The grizzly bear population in northwest Montana is one of six threatened populations. Obtaining a detailed, relevant, landscape-wide vegetation layer for use in analysis and monitoring of wildlife populations is a daunting task, especially over large areas. Of the vegetation maps considered for this analysis, the LANDFIRE vegetation map best met project requirements and was the most accurate map relevant to bear ecology that covered the entire study area with a resolution sufficient for multi-scale analysis.

► **Use of LANDFIRE Data in Bighorn Sheep Viability Analysis: Payette National Forest, Idaho, April 2007**

– LANDFIRE vegetation data were processed through a habitat model that identified and mapped source habitat areas for bighorn sheep. This analysis indicated that bighorn sheep disease interactions were the limiting factor in bighorn sheep viability, rather than the amount and distribution of source habitat. LANDFIRE Existing Vegetation Type and Canopy Cover maps provided the only continuous and consistent data covering all lands of the assessment area of the appropriate scale and spatial extent needed to conduct this analysis.

Please visit www.landfire.gov (*Data Products* or *Documents* sections) for more examples of LANDFIRE data products in use as well as details on the examples described above. And be sure to check back as additional case studies will continue to be added.

2007 Fire Season After-Action Review

With the goal of improving data for future use, the LANDFIRE team held the second annual “After Action Review,” soliciting feedback from individuals who used LANDFIRE data products. The review focused primarily on use of the fire behavior data products during the 2007 fire season and also included a presentation on applications in natural resources management. The review was held in December of 2007 in Salt Lake City, Utah, and involved participants from various state and federal agencies, including representatives from the Forest Service, Bureau of Land Management, Bureau of Indian Affairs, National Park Service, Fire Program Analysis, and the Center for Earth Resources Observation & Science.

Following are some highlights from the December meeting:

Continued...



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- The 2007 fire season saw over 150 fires across the western U.S. on which the WFDSS process and LANDFIRE data were used (see the above section *Use of LANDFIRE Data on Fire Incidents in 2007*).
- Based on users' suggestions from the 2006 review, improvements have been made in the mapping of barren/rock/water areas. The over-representation of riparian areas in the map layers, however, continues to present challenges and users should be aware of this issue.
- Also from the 2006 meeting, issues in the mapping of canopy bulk density and canopy base height remain, and users should therefore continue to consult the advice available via www.landfire.gov (Data Products > Data Notifications). The LANDFIRE team is exploring methodologies to improve canopy cover estimates.
- Participants expressed a need for improved outreach and notification for LANDFIRE's Fuel Calibration workshops, and the LANDFIRE team is responding to this need.
- As mentioned, an interesting highlight of the review involved a presentation on the use of LANDFIRE data in a non-fire application. In April of 2007, LANDFIRE data were used in a bighorn sheep viability analysis conducted in the Payette National Forest area (see above section *Uses of LANDFIRE Data in Natural Resource Management*)

The LANDFIRE team would like to thank the participants of the After Action Review for the invaluable information that results in better products for the user community.

Updating LANDFIRE Data Products

A process is under way to update LANDFIRE data products to support Agency fire and natural resource management programs across the country. The "Operations and Maintenance (O&M) Handoff Plan," including both a business case and technical plan, has been completed as directed by the project charter. The O&M update program involves the participation of multiple natural resource programs and includes a corporate approach to updating data products through the following incremental strategies:

- Refresh (an initial one-time update)
- Biennial updates
- Decadal updates (comprehensive re-mapping)

The LANDFIRE Executive Oversight Committee (EOC) has accepted these plans and has approved the initial LANDFIRE Refresh segment of the updating program. The subsequent implementation of the remaining two strategic phases included in the update approach is being organized under the continued oversight and management of the program.

The first segment of the LANDFIRE update approach, the Refresh,

includes an initial "Rapid Refresh" phase through which LANDFIRE fire behavior data products will be updated for approximately 30 mapping zones associated with eleven western states within FY08. Along with the Rapid Refresh, zones in the southeastern U.S. will also be updated in FY08 as a prototype of the long-term O&M update processes. The general area included in this southeastern update falls within two of Bailey's ecological provinces: the coastal plains forest province and the southeastern mixed forest province. This prototype will focus on the ecological disturbance factors associated with tropical storms/hurricanes, forest harvesting, wildland fires, and vegetation succession.

The long-term O&M program will include updates to both vegetation and fire behavior data layers to capture changes that have been caused by management actions and/or disturbances, including wildland fire and landscape weather damage.

Technology Transfer & Training Updates



The National Interagency Fuels Technology Team (NIFTT), chartered under the National Interagency Fuels Coordination Group, serves as the training & technology transfer arm of LANDFIRE. Over the next two years, NIFTT will be implementing its work plan with the following emphases:

- Expand online course offerings, two of which to include a course covering various spatial & non-spatial tool applications available for use with LANDFIRE data and an advanced integrated fire and fuels planning course. NIFTT will be transitioning workshop content into an online environment to increase accessibility for all potential users.
- Continue to provide helpdesk services for LANDFIRE-, FRCC-, and NIFTT-related questions and concerns.
- Continue to refine FRCC-related materials, including 1) updating the FRCC Guidebook and online course components, 2) achieving consistency between spatial & non-spatial FRCC assessments with regard to determination of fire regime departure, and 3) producing peer-reviewed publications
- Evaluate all NIFTT tools to determine effectiveness & relevance and identify potential future tool needs, including 1) maintaining those that have achieved user expectations, 2) removing any tools that are duplicative with other available tools, and 3) developing new tools, particularly those that support the LANDFIRE Operations and Maintenance (O&M) plan
- Provide technical support for the LANDFIRE Rapid Refresh and Refresh phases of O&M, which will update LANDFIRE products to support 1) the Wildland Fire Decision Support System (WFDSS), 2) Fire Program Analysis (FPA), 3) the National Interagency Fuels Coordination Group (NIFCG), and 4) resource management applications.

Please visit the various sections of www.landfire.gov for project details and LANDFIRE data products or communicate with the LANDFIRE team through the Contact Us link on the website's homepage.

