



Smoke Signals

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Volume 14

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Blacksnakes Corner will be included in the September issue of Smoke Signals	

2009 FEMO Workshop in Northeastern Washington

~ Laura Atkins, SCA, Northwest Regional Office



High flames witnessed on the burn



Karrie Stevens, NW, RM, and Alaska Regional Fire Management Specialist (Ecosystems) provides students with background information on FEMOs.

From April 7th through the 9th, 2009, a Fire Effects Monitoring (FEMO) workshop was hosted by the Colville Confederated Tribes at the Mt. Tolman Fire Center. This was the second Bureau of Indian Affairs sponsored and coordinated FEMO Workshop, with the first in April of 2008 hosted by the San Carlos Apache Tribe. Both workshops were interagency events.

Fire Effects Monitors, or FEMOs, monitor the effects of fire behavior. FEMOs can perform as single resources on prescribed fires, as members of Fire Use Modules, or other assignments where fire behavior and effects data is necessary in assisting fire managers in meeting a management objective. FEMOs are experienced and trained fire personnel with the patience to observe fire behavior vs. participating in tactical operations. FEMOs are organized and have an interest in collecting detailed field data and developing written monitoring reports.

Workshop participants represented Indian Country and our interagency partners across the nation. FEMOs and FEMO trainees came from: Crow Agency, Blackfoot Tribe, Ft. Belknap Agency, Northern Cheyenne Agency, Eastern Regional Office, San Carlos Apache Tribe, Colville Confederated Tribes, Coeur d'Alene Tribes, Spokane Tribes, Yakama Tribes, Northwest/Rocky Mtn/Alaska Regional Office, Warm Springs Agency, Rosebud Agency, National Interagency Fire Center, the Midwest/Great Plains Regional Office, Southwest Regional Office, Okanogan-Wenatchee National Forest, Umatilla National Wildlife Refuge, and the Wallowa-Whitman National Forest.

Coordinating the three day workshop was Karrie Stevens, Fire Ecologist and FEMO for BIA Rocky Mountain, Northwest and Alaska Regions. Instructors and student coaches included prescribed fire specialists from Tribes, BIA, the Forest Service and U.S. Fish and Wildlife Service.

Mt. Tolman Fire Center turned out to be the perfect location for this



Demonstration of how to measure rate of spread using two sticks.

workshop. The Workshop included classroom presentations and field exercises, as well as a live prescribed fire monitoring exercise. Most field exercises were conducted on the 2007 Manilla Creek Fire adjacent to Mt. Tolman Fire Center. Students were exposed to presentations on Burn Plan Objectives and Monitoring,

Thank you Mt. Tolman Fire Center and the Colville Confederated Tribes for hosting this workshop!

Environmental Characteristics, Fire Behavior Characteristics, and Communications and Safety.

Overall, ask any FEMO participant, and they will tell you the main theme communicated from the workshop was, "It's all about the objectives." This was the title of a presentation given by the BIA NIFC National Fire Ecologist, Mary Taber. She highlighted the importance of this foundational principle for the FEMO. Monitoring needs to be tied to objectives. Without objectives, the FEMO is just wandering around breathing smoke. As

stated in the Interagency Prescribed Fire Guide, monitoring is defined "as the collection and analysis of repeated observations or measurements to evaluate changes in condition and progress toward meeting a management objective."

On the final day of the workshop, weather permitted FEMO participants an opportunity to practice newly learned skills on a live prescribed burn, Block 74 on the Red George-HFR 2009 fuels project. The exercise began with the FEMO participants joining the fuels crew at their morning briefing on the burn site. Prescribed Fire Burn Boss, Steve Laramie, provided information such as expected weather and fire behavior, burn and prescription objectives, a description of the burn area, an ignition plan, holding plan, contingency plan, and safety issues. This information was critical for the FEMOs who listened eagerly, taking notes and asking questions.

The burn got off to a slow start. It seemed the cool temperatures and moderate humidity levels would not



Ed Brunson, Regional Fire Ecologist, BIA Eastern Oklahoma and Southern Plains Regions, surveys the fire.



Ed Brunson pointing out that the piles did not burn very hot.

allow the burn to begin. Eventually, the burn boss increased the number of igniters on the burn, and the FEMOs were able to witness different fire and smoke behaviors. The FEMO trainees used collected data and observations to write post treatment monitoring assessment reports and an analysis of the extent to which planned objectives were met.

The BIA/Tribes increased their pool of qualified FEMOs by five: Bryan Taylor, Mary Taber, Jerry Barnes, William Wilson, and Paul Pooler. In addition, one Forest Service employee, Gabe Hale was able to complete all FEMO tasks. Nearly all trainees were

able to make significant progress toward completion of their Position Task Books, with several needing an additional assignment. This is a huge success for Indian Country. As FEMOs become more available, it is likely their skills and knowledge will be recognized and utilized by fuels personnel in helping to measure treatment effectiveness toward meeting planned objectives.

Congratulations and thanks to the following for successful completing, coaching, or teaching at the spring 2009 FEMO Workshop: Thomas Crutcher, Jon Kohn, John Gallaher, Bryan Taylor, Jayson Lawton, Wade

Jane, Glen Still Smoking, Chuck Simpson, Jerald Boyd, Warren Morin, Laura Atkins, Gabe Hale, Jason Fulfer, Christine Thompson, Roger Brandom, Robert Oliver, Phillip McLaughlin, Mike Bearcomesout, Josh Logan, Bert Shields, Mary Taber, Paul Pooler, Jerry Barnes, William Wilson, Bob Roberts, Ed Brunson, Kathy Busse, Jennifer Croft, Karrie Stevens, Jon Martin, Lisa Loncar, and Bill Coates.

Future FEMO workshops are in the works. The next workshop will be offered in the fall of 2009. Contact your Regional Fire Ecologist for more information.



All FEMO participants after the live fire exercise in the field.

Dennis Dupuis Honored at WeTip National Conference

~ Susan Aguilar, Chief Executive Officer, WeTip, Riverside California



Sue Mandell presents Dennis Dupuis with Arson Program of the Year award, April 24, 2009.

Dennis Dupuis, Associate Director, Fire Use and Fuels, BIA-NIFC was honored April 24th at the WeTip National Conference, held at the Historic Mission Inn Hotel in Riverside, California.

Dupuis and his wildland arson fire team took on the challenge of educating tribal members on Indian reservations nationwide about the WeTip anonymous arson hotline program and the benefits that it provides for tribal members. Over the past six years, the Bureau of Indian Affairs (BIA) has actively pursued the development of a wildland fire investigation program. This program

accurately identifies fire cause trends and is critical to the success of the WeTip fire prevention program. This effective program also provides equally important information that is used in determining and identifying those responsible for unwanted fire. In those cases involving arson, identifying the perpetrator is of vital public interest.

The creation and the success of the WeTip/BIA partnership are credited to Dennis Dupuis and his entire team. Dennis has spent his career working in Indian Country. Years ago, the BIA saw the need for a cohesive national program and over the last few years

has worked diligently towards putting that goal in place. Dennis challenged his team to take on the responsibility of educating Investigators about the anonymous WeTip Arson Hotline program and the potential benefits to Indian Country. Since its start, information called into WeTip has aided law enforcement in solving nearly 15,000 criminal cases and convicting over 8,500 dangerous criminals, and aiding law enforcement in seizing over 345 million in illegal drugs and narcotics and combating arson fires.

Dennis started with the BIA in 1978 working on the White Mountain Apache Indian Reservation. Since then, Dennis worked for the BIA, Albuquerque Area Office, was Forest Manager for the Flathead Indian Reservation, and Tribal FMO for the Confederated Salish and Kootenai Tribes. Dennis currently works at the National Interagency Fire Center in Boise Idaho as the Associate Director for Fire Use and Fuels in the BIA. He is the national program lead for the Hazardous Fuels Reduction program in Indian Country and is a member and past Chair of the National Interagency Fuels Coordination Group.

WeTip was created in 1972 as a direct response to law enforcements need for information from citizens that have information about a crime but are reluctant to give that information because they fear reprisal from the criminal. WeTip provides the anonymous hotline services to communities nationwide, 24 hours a day, 365 days a year. The identity of the informant is never known to anyone, not even WeTip. WeTip offers up to \$10,000 for information leading to an arrest and conviction of someone setting arson fires on Indian land. Calls regarding arson fires anywhere can be made to WeTip at 800-47-ARSON.

Mary Taber Presented with the University of Idaho Alumni Achievement Award

~ Robyn Broyles, BIA Fire Communication and Education Specialist



Mary Taber, alumni photo

Each year, the University of Idaho Alumni Association highlights alumnus/alumna who have graduated within the past 10 years and who

has had an exceptional career record thus far with indications of continued outstanding attainment in the future. This year, the Alumni Achievement Award was presented to Mary Taber, the national fire ecologist for the Bureau of Indian Affairs at the National Interagency Fire Center in Boise, Idaho.

Taber received her bachelor's degree in park and recreation resource management from Michigan State University in 1982 and then later was awarded her Masters of Natural Resources degree with a graduate certificate in fire ecology, management and technology in 2005.

She is the agency's lead for fire effects monitoring, smoke management and managing wildland fire for resource benefit. As a faculty member at National Advanced Fire & Resource Institute in Tucson, Ariz., Taber co-teaches two courses on using fire to

meet resource management objectives. Her current projects include leading a national agency task group to implement recent changes in federal fire policy, and developing training modules to enhance fire effects monitoring skills. During the past several fire seasons, Taber has led implementation plan development and decision analysis for large western wildfires as well as for post-hurricane fuel hazard evaluations.

After a 25-year career with the National Park Service, in August of 2006, she accepted her present position with the Bureau of Indian Affairs to pursue her interests in Wildland fire management. Her favorite past assignments included patrolling the far reaches of Yellowstone Lake by canoe and horseback, rappelling out of helicopters and teaching leadership classes in the national parks of Hawaii. With husband Michael, they enjoy sea kayaking and telemark skiing in the Yellowstone ecosystem and traveling throughout the American West, Mexico and the Caribbean. Congratulations to Mary Taber for her educational achievements and dedication to the wildland fire community.

Fall 2008 Simon Butte/Trout Creek Burn

~ Laura Atkins, Fire Resource Management Assistant/SCA



Brent Demko

In late summer 2008, the Yakama Nation fuels program contacted the Northwest Regional office for help in developing the Simon Butte Rx Fire Plan. After a brief consultation, it was decided that the Rx burn could be completed in the fall of 2008 but would require that \$70,000 be put into an agreement for helicopter time at the end of

the year and that a \$400,000 request for critical needs would be required for October, 2008. The decision to move ahead, so late in the fiscal year, required quick collaboration of numerous resources. Nancy Wilson, Umatilla FMO traveled to Yakama and spent five days helping Yakama fuels specialists prepare the specifics of the Simon Butte Rx Fire Plan. In addition, John Szulc, Northwest Regional AFMO went to Yakama to complete the technical review. As a result, the plan was ready to be implemented by early October. The desire to get the Simon Butte/Trout Creek area introduced to cyclical fire would soon be realized.

The implementation of the burn began on October 19th, and lasted until the second of November. A total of 1711 acres were treated over eight burn days at an estimated total cost of \$200,297. Almost 350 acres were burned per day at an average of \$117/acre.

This operation could not have been as successful without the pool of resources that agreed to help implement this burn. In addition to the Yakama resources (fuels and fire plus other agency/tribal militia), folks from Warm Springs Agency (IHC), Ft. Hall Tribe (engines and personnel), Yakima Fire District #5 (engines and personnel), Umatilla Tribal engine and personnel, plus the burn boss, and Spokane Tribe (engines and personnel) all participated in the overall operation of the burn. On several burn days there were over fifty personnel participating in the burn.

One of the key focuses, in the implementation of this burn, was training. Total training days by position for the burn operation included: RXB2, 9 days; STEN, 5 days; FIRB, 22 days; TFLD, 2 days; ENGB, 12 days.

Close coordination among multiple agencies/tribes and fire district proved critical in meeting the fire plans objectives. Fuels managers can be proud of the excellent safety record and lack of accidents that typified the operation.

In addition to the many successes of the burn, there were also valuable lessons learned. One lesson learned from the burn was to develop more quantifiable objectives in the burn plan, as translated from the NEPA document. Also, the importance of having the rooms set up and a price agreed upon for Tribal personnel will be something that is worked on in future burn operations. Finally, the Rx fire plan was amended on the fly, with amendment written, tech reviewed



Nancy Wilson, BIA Umatilla FMO.

and approved by the Superintendent in one morning (plan amended to reduce required organization due to wetter burning conditions). This amendment was both a success and a lesson learned in demonstrating the process and showing that it could be completed very quickly—without lengthy delays in implementing burn operations.

There are many people who proved critical in the burn operation. For one, the logistical support from fuels personnel at the Yakama Nation, which included Brent Demko, Everett Isaac, Bryan Taylor, and Joseph Mesplie, was instrumental in the success of the burn operation. Special thanks to Nancy Wilson for her guidance and contributions and for her job as the trainer burn boss. Her skills and knowledge proved to be invaluable in this highly successful burn. As a token of everyone's appreciation, the Northwest Regional Office presented

Nancy with a special award at the spring, '09 Joint NW & Rocky Mt. Fire/Fuels meeting in March. In addition, the burn could not have happened without the support from the Yakama Nation's FMO, Don Jones. His willingness to allow the burn operation is highly appreciated.



Gene Lonning NW Regional Fuels Specialist, and Randy Friedlander, AFMO Colville.



Flame - on!



Fort Bidwell Prescribed Fire Protects Community from the threat of a Wildland Urban Interface Fire

~ Garth Jeffers, FMO Surprise Field Office, BLM



Rx fire on the Fort Bidwell Paiute Indian Reservation, January 2009.

~ Photo courtesy of Garth Jeffers



BIA Fuels Management Crew Coordinator Arnold DeGarmo overseeing the burn. Arnold is based out of Cedarville.

The Fort Bidwell prescribed fire took place January 26, 2009 in coordination with the BIA and BLM Surprise Field Office in Surprise, Ca. The burn was conducted by the California Interagency BIA/ BLM Fuels Module and accompanied by BLM fire personnel. This year, 247 acres were completed over two weeks by the fuels module led by Arnold DeGarmo to reduce fuels in the wildland urban interface of Fort Bidwell Paiute Indian Reservation. Piles left from mechanical logging treatments were also completed.

The California Interagency BIA/ BLM Fuels Module is the first fuels module within California to partner with the BIA. In 1991, an interagency

agreement between BIA and BLM took place at the Redding field office to start a BLM fuels module composed of tribal members from Fort Bidwell Paiute Indian Reservation. A desire was voiced to construct and maintain a fuels break to protect the wildland urban interface. Thus, a seasonal crew composed of 90% tribal members hired by the BLM was born. In 1995, the BIA began transitioning crew members into seasonal employees and today, the crew supports predominantly community tribal members. From late May to early November the module totals 15 fire fighters and during winter months, the crew maintains six to eight fire personnel for prescribed burning projects.

Fort Belknap Contracts to Protect Villages

~ David Peters, Inter-Regional Wildfire Mitigation/Prevention Specialist

Fire management staff from the Fort Belknap Fire Management program recently completed a 36 acre thinning unit (hazardous fuels project) with the BLM. The fuel break project adjacent to the villages of Landusky and Zortman provided contract work for 20 tribal fuels crewmembers in north central Montana. The partnership

between the tribe and BLM creates a seamless approach to protecting fire fighters and the public during a wildfire situation.

Fort Belknap is a 650 thousand acre reservation about 100 miles northeast of Lewistown, Montana. A Fort Belknap tribal hand crew has

~ Photo courtesy of Garth Jeffers

Each year, the crew completes several BIA and BLM projects on the Fort Bidwell Paiute Indian reservation, four Rancherias and BLM Direct Protection Area lands, mainly in northern California and northwest Nevada. Hazardous fuel reductions, prescribed fire, sage grouse habitat restoration and protection, aspen, rangeland, forest and other restoration projects are among some of the project work they annually participate in.

For further information, contact Garth Jeffers, FMO Surprise Field Office at 530-279-2729 or email him at Garth_Jeffers@ca.blm.gov

completed numerous fuels reduction projects on tribal lands adjacent to the two villages in the Little Rockies area. The BLM has also been working on firebreaks for the Landusky and Zortman communities for several years. However, to expand their wildfire protection efforts, they needed to work together to further protect these Wildland Urban Interface areas. Tribal management, fuels and prevention specialists worked closely with BLM staff to identify key hazardous areas along their two boundaries.



Ft. Belknap sawyer.

The first collaborative project was completed in September 2008 near Landusky and Zortman. A cost-share agreement gave the hand crew the authority to complete the work. The tribe paid for labor and the supplies for work done on tribal



Piles at Camp Creek.

lands, while the BLM paid the hand crew for work done on BLM lands. The tribe and BLM plan to continue this fire mitigation effort for communities they share wildfire protection concerns.

Potentially Harmful Chemicals Found in Forest Fire Smoke

Smoke particles could affect health, environment in fire-prone areas

~ Mary Beckman, Science Writer, PNNL Media Relations

“Ponderosa pines are widespread in areas that are prone to forest fires,” said PNNL physical chemist Julia Laskin, one of the coauthors. “This study shows us which molecules are in smoke so we can better understand smoke’s environmental impact.”

As trees and underbrush burn, billowing smoke made up of tiny particles drifts away. The tiny particles contain a variety of natural compounds released from the plant matter. Researchers have long suspected the presence of alkaloids in smoke or detected them in air during fire season, but no one had directly measured them coming off a fire. The PNNL researchers had recently developed the technology to pick out alkaloids from the background of similar molecules.

To investigate chemicals given off by fires, the team captured some smoke from test fires organized by Colorado State University researchers. These researchers were doing controlled burns of ponderosa pines, underbrush and other fuels at the Forest Service Fire Science Laboratory in Missoula, Mont.

The scientists collected smoke samples in a device that corrals small particles. Using high-resolution spectrometry instruments in EMSL, DOE’s Environmental Molecular Sciences Laboratory on the PNNL campus, they then determined which molecules the smoke contained. At EMSL, the researchers used the new methods to glean highly detailed information about the smoke’s composition.

The team found a wide variety of molecules. When they compared their results to other studies, they found that 70 percent of these molecules had not been previously reported in smoke.

“The research significantly expanded the previous observations,” said aerosol chemist and coauthor Alexander Laskin.



RICHLAND, Wash. -- Researchers have detected common plant toxins that affect human health and ecosystems in smoke from forest fires. The results from the new study also suggest that smoldering fires may produce more toxins than wildfires - a reason to keep human exposures to a minimum during controlled burns.

Finding these toxins -- known as alkaloids -- helps researchers understand how they cycle through earth and air. Smoke-related alkaloids in the environment can change aquatic and terrestrial ecosystems, as well as where and when clouds form. The study, which was of Ponderosa pines, by scientists at the Department of Energy’s Pacific Northwest National Laboratory will appear June 1 in *Environmental Science and Technology*.

In addition, 10 to 30 percent of these were alkaloids, common plant molecules that proved to be quite resistant to the high temperatures of fire. Plants often use alkaloids for protection, because they can poison other plants and animals, including humans. Alkaloids also have medicinal value (caffeine and nicotine, for example, are well-known alkaloids that aren't found in pine trees).

A large percentage of the alkaloids were those that carry biologically useful nitrogen through atmospheric, terrestrial and aquatic environments. Because of

this, the results suggest smoke might be an important step in this transport. Also, the nitrogen-containing alkaloids have a basic pH, which can make cloud-forming particles less acidic, and in turn impact cloud formation that is critical to global agriculture and water supplies.

The researchers also found that the abundance of alkaloids depends on how vigorously the fire burns. Smoldering fires such as those in controlled burns produce more of the compounds than blazing fires such as those fanned by high winds. Because some plant

alkaloids might be harmful, the result could affect planned fires upwind of human populations.

For future studies, the researchers are developing a method to quantify the alkaloids and related compounds in smoke to better understand their chemical composition and prevalence.

Contact: Mary Beckman (509) 375-3688

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Planting Seeds with the Native Geospatial Data User's Group

~ Theresa Nallick, Natural Resource Specialist, Navajo Region

Theresa Nallick - Natural Resource "Spatialist" from the Navajo Region, Branch of Forestry/Fire Mgmt. from Fort Defiance, AZ, is planting new seeds with the Native Geospatial Data User's Group (G-DUG). Comprised of local Federal, Tribal, and contract Geographic Information Systems (GIS) users, the Native G-DUG took root out of a need to acquire and share good GIS data and information across agency boundaries. Initiated in October 2007, this group has grown from a handful of curious GIS users into an excited network of users from 27 different offices (10 federal, 16 tribal, and one contract). Besides offices from three of the four BIA agencies within Navajo Region, other offices represented include Indian Health Services; the Navajo Depts. of Economic Development, Health, Information Technology, Law Enforcement, and Water Resources; the Navajo Nation Housing Authority, Archaeological Dept., Fire Dept., Historical Preservation Dept., Land Dept., Real Estate Office, Water Code, and Office of Safety and Loss Control; and the Navajo Tribal Utility Authority. So far, 55 different GIS users have come together for two hours a month to collaborate on breaking down old belief structures, sharing knowledge and training opportunities, and establishing quality data and data standards for Navajo GIS data. Most importantly, they encourage and inspire each other.

In 2008, Nallick received an invitation to attend the Navajo Nation Information Technology summit to give a presentation on the grassroots work of the Native G-DUG program. While there, she explained the goals of the Native G-DUG using her own



Native GDUG jpg: l to r (for each head): Michael Paisano (hidden) - Navajo Housing Authority; Anne Meloy - BIA Navajo Regional Office, Natural Resources; Paul Notah - BIA/OCIO Navajo Regional Office, Roads; Deana Benally - BIA Western Navajo Agency, Natural Resources; Lawrence Charley - Navajo Nation Dept. of Information Technology; Nelson Roanhorse - BIA Navajo Regional Office, Natural Resources; Gerald O'Hara - BIA Navajo Regional Office, Natural Resources; Melvin Taliman - Navajo Housing Authority; Darryl Wilson - BIA Navajo Region Fire Use; Theresa Nallick - BIA Navajo Region Fire Mgmt.; Michael Watchman - BIA Navajo Fire Use; Dennis Teller - BIA Navajo Region Fire Use.

~ Photo taken by Bart Matthews, contractor

experience in fire as an example of the need to have good, accessible, and standardized GIS data. Among those in the audience was the Vice President of Fort Defiance Chapter, Mr. Aaron Sam. Immediately after the presentation, he asked Nallick if the Native G-DUG could help his chapter. In early 2008, Fort Defiance experienced an unusually heavy amount of snowfall that left several elderly residents stranded in their homes for days. Rescuers had to depend on word-of-mouth information from the local community when searching for victims of the storm because there is no GIS data for Navajo residences (such as e911 or rural addressing). Mr. Sam's question gave Nallick the idea to use Fort Defiance Chapter as a model

for improving GIS data for the entire reservation. The idea was presented and accepted at the next Native G-DUG meeting, and subsequently led to another invite to present the G-DUG at a Fort Defiance Chapter meeting. Immediately after the Chapter presentation, a resolution was passed unanimously in favor of allowing the Native G-DUG to proceed with using Fort Defiance Chapter as a model in exchange for the G-DUG's help with their GPS/GIS needs.

Since then, the Native G-DUG has worked in much closer collaboration with the Chapter and among its partners to exchange and improve Navajo GIS data. Though the Native

G-DUG is relatively new, it has also received national attention. Since the BIA reconnected to the Internet, the Office of Information Operations (OIO) initiated a national program, the Enterprise Geospatial Program (EGP), to implement an Enterprise GIS (eGIS) throughout all of the BIA. The EGP is managed by Martin Fetridge, Division Chief of IT Special Services for the OIO in Herndon, VA. Fetridge has expressed a desire to use the Native G-DUG as a model for all of BIA in developing local GIS user's groups. Now, thanks to the hard work of several dedicated individuals not only is the Navajo Land Dept. generating a Master geodatabase for Navajo GIS data at the local level, the EGP is also collaborating with them from the national level.

This new network of friends and collaborators goes beyond GIS and GPS. Some of the Native G-DUG's most recent projects include sharing data to help disseminate accurate information on a local plague outbreak, sharing information about an e-waste recycling program, and community outreach to local schools, career fairs, and youth

programs. Most G-DUG members feel it is important to share knowledge and skills with the local youth who are the future leaders. Many of the Native G-DUG members would like to teach others about the diverse applications of GIS technology, from natural resources and fire to disease and crime tracking, to show how computer technology can be valuable to the local communities and to plant even more seeds.

The members feel the Native G-DUG has been successful at breaking through some of the traditional and institutional barriers. Nallick acknowledges that the Native G-DUG couldn't have come this far without the participation and support of those



Clock-wise from left: Elvina Clark-Joe - IHS Office of Environmental Health; Brian Tagaban - Navajo Dept. of Health Information Systems; Theresa Nallick; Deana Benally - BIA Western Navajo Agency Natural Resources; Paul Notah - BIA/OCIO Navajo Regional Office, Roads; Monteo Ruiz - Navajo Tribal Utility Authority; Anne Meloy - BIA Navajo Regional Office, Natural Resources; Melvin Taliman - Navajo Housing Authority; Vernon Lon

55 other GIS users who share the same dream, and also acknowledges the support of her supervisor and co-workers at Fire Management.



Planning

Integration of WFDSS into Menominee Fire Program

~ Jeremy Bennett, Fire Management Officer,
Menominee Tribal Enterprises

March 30th was the date of the first fire for the Menominee Fire Program in 2009. This fire was also the first opportunity for Menominee to enter data into WFDSS (Wildland Fire Decision Support System).

At the National BIA Fire Management Officers meeting in Boise, it was agreed that the best action for agencies and tribes would be to enter all fires, regardless of size, into WFDSS; a directive from the National Office



Jeremy Bennett, FMO, Menominee Reservation.

set an implementation deadline of October, 2009. Seemingly mundane and just "another thing to do" as fire managers, Menominee saw this as an opportunity to get ahead of the game in fire reporting and documentation of fires. It also helps ensure that Menominee will be prepared to manage large wildfires in the best way

possible this season. After receiving a password and looking into what WFDSS had to offer, the staff at Menominee decided WFDSS would be an excellent tool and decision support program to be incorporated into the revision of the Menominee Fire Management Plan.

WFDSS is a helpful tool for any fire manager at any complexity level. Ideally, this will lead to a centralized, more efficient method of managing fire program information as a hub for all our fire management data and decision analysis needs. If other standard fire management programs (i.e., fire reporting, fire code, Behave, FireFamily Plus, FSPro NFPORS, WIMS, etc.) can be incorporated into

one program, we have the potential to save time and money instead of the redundancy of entering the same data over and over into the many different programs.

Being more efficient is one way the Menominee Fire Program has been able to grow and accomplish more with minimal increases in funding. Entering data into WFDSS

is actually an easy process and Menominee supports WFDSS if this will lead to improved procedures and decision making in the future. At Menominee, we encourage everybody to incorporate WFDSS into their program and push for more efficient National Interagency Wildland Fire Management products and procedures.



Prevention

Jim Nanamkin Wins Earl R. Wilcox Award!

~ Solidar Holguin, Regional Prevention Specialist and
Ron Recker, Regional Fire Management Officer

The Thirty-Third Annual, National Indian Timber Symposium was hosted by the Nez Perce Tribe in Lewiston, Idaho in April. This years theme "Branching Out, Opportunities to Enhance Management of Tribal Forests", describes one recipient of the Earle R. Wilcox Individual and National Achievement Award for the Northwest Region. Jim L. Nanamkin did work outside the box to educate tribal members of the importance of preventing wildland fires and protecting tribal natural resources for future generations.

Jim began his career in the mid 70's on the Colville Indian Reservation in Washington State. He worked in the presales department, setting up sales, and marketing timber on Tribal lands. Jim spent many years appraising timber values, cruising, marking, and log grading. During this time he also supported wildland fire suppression efforts on the reservation. He served in many initial attack and extended attack positions as well as was involved with overhead teams. In the 1990's Jim became the lead



Ron Recker (left) congratulates Jim Nanamkin who was presented with the Earl R. Wilcox Award at the ITC Award banquet April 23, 2009

fire prevention officer for the Colville Reservation.

In 2001 Jim accepted a position in California and today is the Regional Wildland Fire Prevention Specialist for the Pacific Region. Jim brings a very positive influence to the region and the tribes we serve. For the last four years, he has been a member of the cadre for the State of California Interagency Fire Prevention Education Mitigation Conference. Jim has built a true alliance throughout the many Tribes he serves. The partnerships he has developed are essential for the effective prevention and education programs as well as fire investigations. Jim's respectful demeanor and skill in dealing with a wide variety of disciplines and organizations gets results. Jim has built a fire prevention program centered on the idea of directly educating the public about fire use and misuse.

Jim leads by example and has set a high standard in the field of fire prevention. He has developed a

system of wildland fire origin and cause investigation for tribal lands within the Pacific Region, which did not previously exist. Jim saw unique opportunities to utilize the WETIP program (anonymous arson tip hotline) and incorporated the WETIP program into prevention plans, and for operational use within the region.

Jim is the Bureau of Indian Affairs representative to the National Wildland Coordinating Group, Wildfire Investigation Working team. Jim has brought years of practical field experience to the table, and has been instrumental in the development of the FI-110, FI-210, FI-310 classes as well the development of a national interagency fire investigation handbook. Jim is well respected nationally among the senior level wildfire investigators serving Tribal Trust lands as well as interagency investigators across all jurisdictions and agencies. He is often called upon to provide advice and leadership in the most complex cases involving incendiary cause and/or damaging fires. Indian Country is fortunate to have an individual of his caliber and credentials serving Tribes. Jim is well deserving of the Earle R. Wilcox Individual and National Achievement award. Congratulations Jim on a job well done and thank you for your many years of dedicated service to Indian Country.

Michelle Reynolds from Red Lake Minnesota also won an Earle R. Wilcox Award that night. We hope to have an article for the next Smoke Signals about her. Congratulations to both Jim and Michelle on their awards and the good work they are doing for Indian Country!

Regulations Reducing Wildfires

~ David Peters, Inter-Regional Wildfire Mitigation/Prevention Specialist

Three years ago three of North Dakota's five reservations - Fort Berthold, Turtle Mountain, and Spirit Lake, had 1000 human started wildfires per year. Human fire starts have now been reduced by 370 fires per year.

This 37% decrease is primarily due to the efforts of Jim Hamley, BIA's North Dakota Fire Prevention Officer, who has been working with Tribal Council Representatives to develop fire regulations and penalties.

In 2005, Jim began working with the Tribal Council Representatives and their Attorneys to develop codes that could be enforced on the three reservations that had very high incidences of human fire starts. Together they developed new tribal fire codes to enforce and reduce human caused fires. Underlying each code is the penalty that any person found to have started a forest, grass or brush fire is in violation of the codes and will be held financially responsible for the suppression and investigation of the fire. Further definition of the code places financial responsibility on the guardian of any minor found to have started a fire.

The development and approval process to sign these regulations and penalties



Training

The idea for a Northwest (NW) Region Prescribed (Rx) Fire Training Detail to Horton Agency, KS came about as the result of a national level fuels program review of both Horton Agency, KS and Concho Agency, OK in 2008.

The review identified inadequate staffing to implement fairly aggressive targets for prescribed broadcast burning, especially at Horton. This is a common theme among many small agencies & tribes.

As a result of conversations with land operations and fuels program personnel,



Left to Right: Anonymous Volunteer, Turtle Mountain Agency Law Enforcement Officer and Jim Hamley practice Fire Investigation Scenario at Turtle Mountain Reservation, ND.

~ Photo by Jim Hamley, BIA North Dakota Fire Prevention Officer.

into law have taken between nine and 15 months to accomplish, depending on the tribal process. When asked what the biggest difficulty was, Hamley said, "Working with the Law and Order Committee to get the right words in place and also getting on the Tribal Agenda was the biggest challenge. You can't go in and expect things to happen overnight. We need the laws in place for all of our safety."

Once the laws were in place on these three reservations in North Dakota, things immediately started to turn around. Hamley said, "If you don't

have a law, how can you expect it to be a crime. If laws are not in place, people will burn, since there are not any repercussions for their actions."

Other reservations around the country such as Pine Ridge and White Mountain Apache have expressed interest in developing similar laws.

For more information on the development of tribal codes to address this issue, you can contact Jim Hamley at 701/477-0472. The codes discussed in this article can be obtained from the BIA Forestry Office in Belcourt, ND.

NW Region Rx Fire Training Detail to Horton Agency, KS

~ Gene Lonning, Northwest Regional Fuels Specialist

it was proposed that a NW Rx fire training module go to Horton to provide the staffing needed for implementation - training NW personnel would be a valuable added benefit.

Some general terms of agreement were reached between Horton & NW Region. A full list of terms can be obtained through NW Region. Highlights of that agreement are as follow:

1. Module would consist of trainers and trainees in the Burn Boss (RXB2), Firing Boss (FIRB) and Engine Boss (ENGB) positions; and if it could be arranged a Fire Effects Monitor (FEMO) position. Module size would be 6 – 10 personnel including logistics

coordinator/liaison.

2. Horton & NW would share some costs;
3. Horton would provide engines, utility terrain vehicles (UTVs), etc.
4. Target acreage: ~2,500 acres of grassland restoration.
5. NW personnel should be self-sufficient.

NW Region set an early January deadline to solicit participant applications. The individuals were then selected, qualifications verified, taskbooks verified, and IQCS records cleaned up.

Note: As the result of this exercise, it is highly recommended that an alternate be assigned for each position and if personnel



Calling in final notifications prior to ignition.

~ Photo by Gene Lonning

have problems making all two weeks of the assignment, they be replaced.

After personnel were selected, a projected budget developed and reviewed, it was time to wait for the call. That call came at the end of February, with a 9 March, '09 incoming travel date, and a 22 March, '09 as the travel home date.

NW personnel included:
 Gene Lonning, NW, RXB2 (Logistics)
 Larry Morgan, Quinault, RXB2-T
 Todd Bryning, Ft Hall, FIRB (RXB2)
 Brent Demko, Yakama, FIRB TJack
 Haggerty, Yakama, RXB2 & FIRB
 Dallas Phelps, Ft Hall, FIRB-T
 Rick Jones, Horton, FEMO
 Bryan Taylor, Yakama, FEMO-T
 Joe Mesplie, Yakama, RXB2-T (came for week 2 of detail)

The NW group was greeted by a major downpour. Very cold temperatures &

cloudy weather were predicted for the next couple of days. After an initial orientation (including an explanation about the location of Todo) and a review of recent burns, Adam Rogers, Horton Fuels Specialist assigned units for the NW personnel to recon, and to write supplemental burn plans for (supplemental to a programmatic broadcast plan already approved). We ended up preparing and handing off 8+ supplemental burn plans before we left; one of which we got the opportunity to burn.

After two days of reconning units and writing supplemental plans, Adam informed us that it was time to do some Rx burning. The troops were excited. Our first burn was a joint (fire size D, ~240 acres) burn with Horton fuels personnel + ADs, a combined Jicarilla/Ft Belknap engine module of 8 and our 7 NW personnel. The intent was to give us NW nubbies a taste of how things were



Geared up for a cold March day of burning in Kansas.

~ Photo by Gene Lonning

done in Kansas. Adam Rogers was the burn boss with Larry Morgan taking the plunge off the deep end in his first type 2 trainee assignment. Brent Demko and Dallas Phelps also got their feet wet in the FIRB-T positions. Brian Taylor also got his initiation as FEMO-T.

On Friday, 13 March, we jointly conducted another fire (size D). The next day, Adam split our NW folks out & married us up with a couple folks from Jicarilla and some local ADs. We implemented a 55 acre burn; then went over to watch and help out Adam and his folks complete another size D burn.

Over the course of the two weeks, there were training opportunities provided on more than 9 burns. Adam Rogers split up the forces on a burn by burn basis. Our module took the lead on four burns, with the balance being run by Adam.



Blacklining with wind, with head fire run.

~ Photo by Gene Lonning



Finishing up ignition and a good day of burning.

~ Photo by Gene Lonning



Blacklining into wind, with backing fire off line.
~ Photo by Gene Lonning

To paraphrase from an accomplishment synopsis by Wally Leander (Horton Agency, Land Operations Manager), 'during the two weeks your crew was here, all three modules (ours, Jicarilla's, and yours) were able to burn 1,900 acres. Our total cost for the 1,900 acres was approximately \$54,813 or \$28.85/acre (coming under the budget objective of burning for \$35/acre).

Another major accomplishment involved the GIS expertise of Bryan Taylor. Adam Rogers was using 1991 Farm Service Agency (FSA) air photo data to develop his supplemental burn plan maps. In our recons, we found a lot of changes on the ground after 18 years. Therefore, Bryan downloaded 2008 FSA air photo data for Jackson County (Potawatomie Indian Reservation), KS from the Kansas GIS server website. He also downloaded roads, railroads and other infra-structure, county, public land survey, 1:24K topos, streams and reservation boundary data from ESRI, GIS data depot and other sources (every data layer came from the internet, excluding reservation ownership layer(s). With these layers downloaded, Bryan worked many extra evening hours and some office time to create maps (location and project) for the supplemental plans we submitted. Finally, on a down

day near the end of our detail, Bryan sat down with Adam, transferred the data to their server and walked him thru the basic project mapping process. A major "attaboy" to Bryan Taylor is in order, for taking the initiative and time to accomplish all this on the side. With this being accomplished for Jackson County, it is easily duplicated (with GIS support) for the other Reservations/Counties under Horton Agency.

Finally, all five of the NW trainees got tasks completed in their taskbooks. Further, Warren Morin, Ft Belknap & Mike Toya, Jicarilla, FIRB-Ts also got to work on their taskbooks. Bryan Taylor, with a later FEMO training session and additional certification assignment at Colville, was recommended for certification. Brent Demko, as a direct result of certification assignments at Yakama, followed with this Horton detail, was also recommended for certification.

Key Lessons Learned:

1. Long distance between regions and agencies isn't cheap. These details need to be planned ahead, with sufficient training monies allowed to cover at least half of the expenses (especially where base eight needs to be covered). This provides two benefits. The host agency/tribe gets their work done in a without breaking their budget, and the sending agency has the opportunity for their agency/tribal people to get quality training and experience. Ask ahead for training dollars!
2. Training module should have a "coordinator/logistics" person,



AAR after a good day of burning ~ Photo by Gene Lonning

preferably a qualified burn boss, who can do micro-purchases when needs arise. It would also be preferable if that burn boss had experience in the fuel types being burned.

3. Preferably, all training personnel should be self-sufficient to cover their travel, motel, meals, etc. Where not feasible, one agency/tribal lead should have a travel card to cover expenses for his/her charges.
4. Keep track of time with crew time reports, copies of which can be provided to host agency/tribe.
5. Persons selected for these training details need to be there for the full training detail period.
6. Other cost saving measures should be pursued where feasible: providing host agency vehicle(s) – where flying in to assignment, consider short duration leases for housing.
7. Host agency/tribe should provide an orientation package (contacts, accommodations, maps, copy of burn plan, etc.)
8. Need to keep these training details LOW KEY and "informal" as possible between two regions/agencies/tribes.

Dispatches from BIA Fire Mentoring

~ Craig Cook, FIA Fire Mentoring Program Coordinator

It's quiet here in the swamp. I don a sweat shirt and head outside with a steaming cup of java and take in another beginning. I am a bit stiff from last night's activities. We were out quite late cavorting in the darkness testing ourselves against fire. That is what we were doing now that I think about it. There is a saying about military operations that goes something like this; "planning is essential, but no plan survives the

first shot." While that may be over dramatic when applied to what we are doing in fire, it does seem to have some applicability. You can have plans, computerized Behave runs, predicted weather and such but once fire is on the ground you have to have your head up to be attuned to the changing conditions and react in a timely and appropriate manner in order to stay ahead of your friend and sometimes adversary...fire. Randy

Prettyontop, Burn Boss from Crow agency puts it succinctly when he says "you must listen to the wind." That is so true, especially here in the Everglades where you do not have the luxury of topography as a guide. When you have hills you can usually count on fire moving up them. Here it is the wind that is key and any change in wind has to be accounted for.

The second season of the BIA Fire

Look for Blacksnake's Corner (Walt Lara - Yurok Forestry) in the next issue of Smoke Signals.

Mentoring Hub at Seminole Agency was completed this year. This program was designed to allow BIA, and Tribal fire personnel the opportunity to gain valuable experiential learning by participating in Prescribed Fire Operations in support of the Seminole Agency. The program continues to evolve and improve with the involvement and input from the participants, field coordinators, and regional and national staff. The 2009 season saw increased interest in the program. The total applications received this season was 32, up from approximately 20 applicants received in 2008. With more people interested in participating we added a third session to try to accommodate as many people as we could. This year the program was able to place 17 participants and 4 Field Coordinators.

At the end of each 21-day session, each group participated in an "after action review" so input could be obtained and improvements to the program planned. Here are some of the comments we received:

- "The group felt that the experience gained burning at Seminole was excellent"
- "Burning experience was top notch the complexities related to variable winds and fuel types really test the participants to monitor weather and fire behavior making tactical changes quickly to adjust"
- "I feel like I can burn anything now"
- "Enjoyed the networking aspect of meeting new people that work in Fire Management. Many developed friendships and contacts that can be called upon to help back at home."
- "Appreciated the experience gained by holding multiple roles associated with Rx Fire. We appreciated the necessity to fill different roles for each burn. For example they might be an Igniter, Firing Boss, Holding Boss or Burn Boss. This allowed us to experience the entire gamut of the Rx operations."



Night burn Seminole.

~ Photo by Craig Cook

These comments indicate the strength of the program really lies in repeated opportunities to actually put fire on the ground, and then to practice the craft of controlling that fire. Building confidence in applying fire to the ground is what we ultimately want this program to achieve.

Seminole Prescribe Fire Mentoring Hub in June. In addition to the National Program at Seminole Agency there will be additional sites being offered at various BIA Agency's around the country for trainees to participate in Prescribed Fire training details.

What's in store for next year? We will be issuing the annual memo announcing the opportunity to submit applications to participate in the

For more information, contact Craig Cook at: 208-387-5965
FAX 208-387-5580



Grass burning at Seminole.

~ Photo by Craig Cook

Thanks!

Thanks again to those of you who have submitted articles and photographs. Keep up the great work!

Submission Criteria

Please include the author's name, title and location, captions and high resolution photographs attached as separate jpeg files. The article submission deadline for "Smoke Signals" is as follows:

March 1
June 1
September 1
December 1

Please start submitting articles for the next issue of Smoke Signals as soon as you can! Thank you!

"When in doubt, tell the truth." ~ Mark Twain

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