

National Invasive Species Information Management System (NISIMS)

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Kathie Jewell

This is Kathie Jewell, the GIS Manager for the Montana State Office and the Project Manager for the National Invasive Species Information Management System, that is referred to now as NISIMS. NISIMS had formerly been called the Weed Database and has been in development for the past four years. What NISIMS is going to take and provide to you is a tool for data collection and the generation of bureau-wide analysis and statistics for invasive species, infestations, and treatment.

Our project sponsor has been Gina Ramos, who is the national weed specialist at the Washington office. She's going to give you a little bit of an overview on how it came to be and why we're working on the National Invasive Species Information Management System - Gina.

Gina Ramos

Thanks, Kathie. I'm Gina Ramos, Senior Weeds Specialist at the Washington office. Now the BLM has always collected treatments, inventory, and monitoring data, but this data has never been collected and housed in one central database, especially for data related to invasive and noxious weeds. In response to BLM's National Partners Against Weeds Strategy Plan, the Department of Interior's Invasive Plant Strategy Plan, as well as the National Invasive Species Management Plan, BLM's efforts to collect and analyze inventory, monitoring, and treatment data for invasive species became crucial. As a result, the National Weed Team proposed to take a basic database called 'Boise-Vale' that collected treatment and inventory data for weeds and developed the national data management system to collect inventory, treatments, restoration, and monitoring information for all invasive species.

Our target for deployment is January 2010, and while this first stage of deployment is specific to invasive and noxious weeds and other vegetation treatments, the BLM

hopes that we can utilize the database to collect not only weeds data, but collect invasive species data for animals, insects, viruses, and pathogens.

Kathie Jewell

This is Kathie, and I'm going to talk to you about how we came to develop the overall application. We ended up pulling together a Subject Matter Expert Team that was made up of resource specialists from the different states, and we used this team to take and re-engineer the entire process for the national weeds program. We ended up taking and working through the workload, the data requirements, the data standards, and had those all defined in coming up with what we needed within the overall application.

We're going to end up taking and hearing today from Donna Degner, who is the GIS Application Programmer from the Montana State Office. We're going to hear from Mark Coca, who's a Natural Resource Specialist from the Elko Field Office. We're going to hear from Kenny Keever, who is a Natural Resource Specialist from the Upper Missouri River Breaks Monument, and Richard Lee, the IPM [Integrated Pest Management] Specialist at the NOC [National Operations Center]. They will all be giving different parts of the overall webcast today, to talk about what and how to use the application.

We're going to take and explain the entire workflow from taking and capturing to maintaining the data within the NISIMS system. We're going to take and talk a little bit about the overall NISIMS system design - what's the infrastructure behind NISIMS? How it's going to be set up is - our overall database is going to be one corporate database stored in SDE [Spatial Data Engine], and that one instance is going to be stored at the National Operations Center - the NOC.

You're going to be taking and accessing NISIMS through Citrix so everybody will have their own state's databases they will be maintaining, but they will be replicated through the software into the national corporate NISIMS database. We have used ESRI software, or COTS [Commercial-off-the-shelf] software, to take and develop

the overall application. We have it as an ArcPad application, and we have it as an ArcMap application, and we're utilizing the database aspect as far as the SDE. And then we are using the Citrix so that we can take and all maintain and replicate the information to that national [database]. That tells us how the hardware is going to be set up, and the software.

Now to tell you a little bit about datasets themselves. The spatial components that we're going to be taking and maintaining are the survey boundaries, the actual area where you've looked to see if, in fact, infestations exist or do not exist. You're going to be capturing the infestation boundaries themselves. You're going to be able to take and go back to those infestations and pick up information about monitoring of those infestations. You're going to be keeping track of the treatment boundaries, what treatments were done, and those treatments will be tied back to the infestations that had been identified first. You also are going to be taking and maintaining the weed management area boundaries. So all five of those datasets will be spatial, and they will be tied into the overall dataset that we're going to be maintaining within NISIMS.

When I said that we had gone through the whole re-engineering process, we ended up having to take and define rules for us to work under. Automation allowed us to be able to take and put a corporate dataset together, but how we put that information in and making all the data mean the same to all offices, we ended up having to take and define the business rules.

Now Mark Coca is going to be going over the specifics of the business rules that we have defined to date.

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