

# NISIMS

## Uploading Data & Generate Reports

recorded: August, 2009

### Kenny Keever

I'll turn it back over to Donna to talk about uploading data, once you get your information collected in the field.

### Donna Degner

Uploading Data To Local Server: Thank you, Kenny. When the user has downloaded the data and gone out to the field and collected all of their data, now they want to move their data back to the National level. To do that, they drag the shapefiles, again, from the PDA back to their local machine.

Once they have dragged that dataset back to the local machine, then they need to run the process that says "Select the desktop directory containing the PDA files." This is the desktop directory that the user just currently copied all of their files back to on the local desktop. And it's just to tell the system where I put my files and where to locate them.

Once the system knows where those files are, the user can click on "Add Project Files from the Desktop to ArcMap." It wants to know where the original download from the National to the local was created so that it knows what that dataset is. So at this point, the user would go back in and show them where the original dataset was again.

**Uploading Data to Local Server:** Once that has been done, then the user wants to go through several processes to make sure that their data is ready to be loaded back to the National set.

The first thing a user would want to do is **buffer all of the infestation points**. As we discussed earlier, points may be collected for an infestation - however, they're always

stored as polygons. So now it is going to buffer those infestation points based on the parameters that the user told it to use. For instance, if the user told it, it was less than or equal to .1 of an acre, it will buffer it to be .1 of an acre.

The next step that a user would want to do is **buffer the treatment points**. These again, are points that were collected as perhaps a bug release or something, but we always buffer them 20 yards for a treatment, so that the minimum polygon size is .25 of an acre. So again, it's getting it ready to be put into the National system.

After that, then the user would want to tell it to **buffer the infestation and treatment lines**. Again, the buffering is done on the perimeters given by the user. The user may have walked down one side of the infestation, and they're saying, "Please buffer this infestation on the right-hand side". So it would take that line, and it would buffer it by the given buffer distance that the user told it to use and the direction that the user told it to use, and it would create the polygon from those lines.

Once this process has been completed, then it wants to **convert those files to the Geodatabase**. This is at the point where it's saying, "Show me where you downloaded your data from the National Directory, and execute this conversion". So you're basically taking the files that you've just created and you're putting them back into the local dataset that you've created earlier.

From there, then you would want to do some additional **attributes updates**, and stuff. One of the things you would want to do is check the distance and dissolve. As we talked about earlier, all of your infestations for one species has to have 40 yards between the plants. So what this does is, it checks to make sure that there really is 40 yards between infestations of the same species that were collected. If there is not, then it dissolves them into one polygon.

It would also compute the infestation centroid. The reason that we do this is because we are trying to follow NAWMA, the North American Weed Management Association.

And so the NAWMA standards say that they want the centroids of the infestation. So basically that's what this process does is, it creates those centroids so that we can provide that data to NAWMA if we need to.

The next thing that it wants to do is, it will calculate the area of that polygon - update all of the area calculations based on what was GPS'd or collected in the field.

Also, we would go through, and we would overlay each of those polygons we've created and say what the state and county codes for those polygons are.

And then at last, it will go through the chemical component use rates, and it computes all of the use rates out based on some previously set recommendations from the group. And then there's the **quality control**.

So first thing that we want to do is make sure that National is in our data frame. That's where our data frame is in the Table of Contents within ArcMap. You want that first one where we pulled the data from the National Dataset. We want it to say National. The reason for this is because the program looks to find where it says National so that it knows where to upload that data to.

**Generate Reports:** So after we've done all of the processing and stuff, we're going to upload this local dataset that we currently have, and we're going to upload it back to the National Dataset. We've now got all of our data back into the National Dataset, and we're able to generate reports.

I'm going to pass this one off to Richard Lee, from the National Operations Center, and he'll go over the report generations with you.

Richard Lee

**Generate Reports:** Thanks, Donna. With the reports updated to the National system, several things or documents can be generated or completed. These documents can be

used on a field office level, state office level, or even on the National level. As you see here, the Task Assistant has facilitated several documents here. The Biological Control Agent Release Record is tied in to the Biological Control Agent Release Proposal, which you generated earlier. The Pesticide Application Record is also tied in to the Pesticide Use Proposal, which is tied in to the infestation or the area that was determined that we needed to make a treatment on.

Now the Integrated Pest Management Report is probably a report that will benefit the most from the use of this database. It will allow us to summarize all of the treatment methods that we have used to prepare a document that shows how extensive the Bureau is involved with an integrated pest management program.

Then finally the one listed there, the Pesticide Use Report, is the report that is generated each year, summarizing the chemicals that are used, the rates they are applied, and things such as this.

**Biological Control Agent Release Record (BCARR):** allows us to do a query based on a particular bio-control agent or on a species for which there was a bio-control agent released, and we can set the range of time. This allows us to identify what, on the bureau-wide basis, a particular bio-control agent was released and what species it was turned loose on.

**Pesticide Application Record (PAR):** is the summary of where or when the application was made. This allows us to check and query for, oh, for example, how much Chlorsulfuron was applied between the dates here. [Oh, well, not those two dates. Those are the same day.] But we can query for years, and we've had requests like this as to how many acres were treated with a particular product. Based on the Pesticide Application Record, we can summarize and provide data on that type of information.

**Integrated Pest Management Report (IPMR):** Next, we've already talked about the Integrated Pest Management Report, but then again, we can still query and identify,

okay, how many acres were impacted by releases of bio-control agents or how many acres were impacted through cultural practices or through the use of herbicides in general.

**Pesticide Use Report (PUR):** And then the last one that we have here is the Pesticide Use Report, probably the one that we get the most inquiries on - a lot of the interest on the materials that are used to treat vegetation on lands we administer. We get inquiries on a regular basis as to how many acres were treated with a particular product, what is the rate of application, the average rate of application - how was it applied? We get inquiries on the species for which they were treated. This information made available through this database will make it a lot easier for us to take care of those types of inquiries.

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