Charted Waters

Volume 2, Issue 1 June 2014

Florida National Hydrography Dataset Stewardship Team

The Florida NHD Stewardship Team is hard at work updating the database.

With about 100,000 edits to the NHD in the first quarter of 2014 alone, the shift to focusing on updating smaller, targeted priority areas of the state will be directly beneficial to numerous scientific assessments that rely on the most accurate hydrology information available.

Latest Edits

The NHD Stewardship team has been hopping all around the state editing Florida's National Hydrography Dataset. Edits took place in the following subbasins:

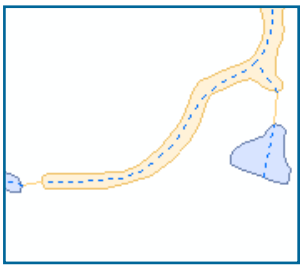
- Aucilla
- Econfina-Steinhatchee
- Upper St. Johns
- Little Manatee
- FL SE Coastal
- Manatee
- Lower St. Johns
- Pensacola
- Pensacola Bay
- Caloosahatchee
- St. Andrews
- Cape Canaveral
- Waccasassa
- Daytona-St. Augustine
- Charlotte Harbor
- Blackwater
- Yellow
- Tampa Bay
- Crystal-Pithlachascote

In the first quarter 2014 alone, the NHD editors made 97,734 modifications to the database!

The USGS also provided a variety of updates to Florida's NHD relevant to network connectivity.

The effort to review network connectivity is part of the USGS goal of getting the NHD 24K database prepared for NHDPlus. Currently NHDPlus is only compatible with the NHD 100K database.

These edits are available in the June statewide release of the NHD on the DEP GIS ftp site and on DataMiner.



The canal (orange) can either be a polygon with an artificial path (dotted blue) in it or a linear feature.

Featured Feature – Canal

A canal in the NHD can be represented as a line or polygon depending on the width of the canal. Additional considerations take into account how long the canal is and if it is connected to another line or polygon feature on either end.

A canal transports water, otherwise, it's considered a reservoir. When represented as a polygon, the canal requires an artificial path running through it to represent the flow of that water through the hydrologic network. Since the artificial path doesn't reflect the actual flow pattern through the area, it is not necessary to add an artificial path into each offshoot of the canal. If the canal is named, only the artificial path is named.

This artificial path has an attribute, "WBAreaPermID", that holds the unique identifier associated with its NHD Area canal and that relationship can then be used to trace upstream/downstream features through the network.

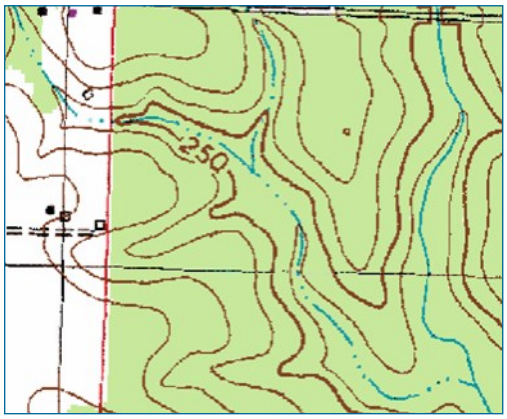
Canals in the NHD can be subcategorized as stormwater, aqueduct or just simply canals.

It is possible to request additional subtypes be added to the database if you have a business need for such an addition.

Contact the NHD team for more information.

Inside this issue:

Intermittent Streams



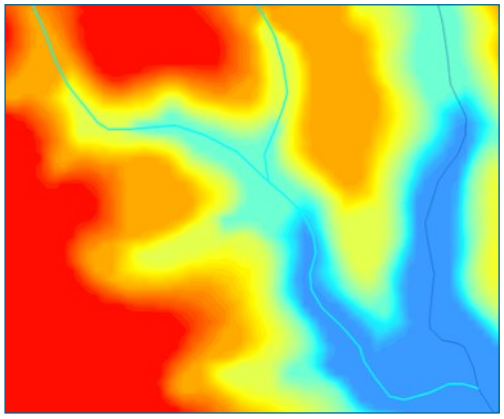
DRG symbology for Intermittent Stream

NHD Intermittent Stream in light blue

Many of the NHD Intermittent streams were derived from the symbology used on the DRG, the source of the original NHD line-work.

In the image above, you can see that it's difficult enough to place a stream, let alone determine if it is perennial, intermittent or ephemeral.

The DEM to the right supports the stream's existence and even provides some idea of where to look for other, smaller streams.



Digital Elevation Model

Did you know?

The NHD has 4 subtypes for Stream/River. The most commonly used subtype in the Florida NHD is the generic, "Stream/River". It is followed by "Perennial", "Intermittent" then "Ephemeral".

By definition, the subtypes for Stream/River rely on knowing what percentage of the year the stream is flowing; information not provided in a single image. When reviewing the NHD using aerial imagery, the editor is seeing a single snapshot in time. That is why so many are categorized simply as Stream/River.

If your local knowledge of the surface waters in your area is captured in a database or spreadsheet and you think it would benefit the NHD, we'd like to know.

Update on missing Bays

67 Named Bays (in red) were added to the NHD along the southwest coast so far this year.

Last year it was brought to our attention that many named bay features were missing or never entered in the NHD.

The NHD team has identified approximately 375 missing bays to add and also will add other bays as found on the DRGs during the editing process.

These bays are actively being incorporated into the database. It is proving to be tedious work, often requiring the modification of underlying ocean polygons, coastline flowlines and determining a reasonable extent of each bay after erosion or other forces have altered the coastal footprint.

> "…an excellent example of our community working together…"

This is an excellent example of our community working together to create a better product in the NHD. If you are aware of changes that need to be made in the NHD, please let the Florida NHD stewardship team know.

One way is to drop a note (internally) in the NHD Requests Inbox at \\gis-raid\gissub\exchange\NHD_Requests_Inbox

or send an email to

Edwin.Abbey@dep.state.fl.us

NHD Word Scramble — Florida Rivers

1. OINTANHJSS _____ _____
2. THEOACLCIWEHO _____
3. ANNESEUW _____
4. LAICLCPOAAAH _____
5. EKVIAW _____
6. MESIMISEK _____
7. CMASAIBE _____
8. SALAHCEAOHCOTE _____
9. ACLTNEO _____
10. STINCAEHEHET _____

Canal:

An artificial open waterway constructed to transport water, to irrigate or drain land, to connect two or more bodies of water, or to serve as a waterway for watercraft.

Looking Forward

The Florida NHD Stewardship team has long been recognized as one of the most active in the nation.

Few stewardship programs have staff and resources dedicated full time to maintaining and updating the NHD. We dedicated these resources because we use the NHD as an essential information resource for the state's surface water modeling, mapping and water quality assessments.

We will continue editing based on priority WBIDs for the DEAR Watershed Assessment Section (WAS). We also should have the ability to target areas requested by other NHD users.

Additional emphasis will be placed on updating names information. Updates typically fall in one of four categories in the following order of least to most work involved with making the change requested:

1) updating the NHD with an official name that is missing from the NHD,
2) correcting a typo in the official names database
3) submitting locally known names to the Board on Geographic Names that aren't officially recognized, and
4) submitting a new name as requested.

The Florida NHD Stewardship Team

The Florida NHD Stewardship team consists of 5 talented GIS professionals working collectively to update the 24K High Resolution National Hydrography Dataset. Using aerial imagery, elevation and other digital resources, the team reviews portions of the database and updates it based on the information resources we have available. Development, natural and manmade change have greatly altered the original documented hydrography of the state. Maintaining the database serves a multitude of users; whether it be for having accurate cartographic representation or having proper delineation and network connections for environmental analysis and decision making.

Florida Dept. of
Environmental Protection
Division of Environmental
Assessment and Restoration
Office of Watershed Services
NHD Stewardship Team
Bob Martinez Complex
Tallahassee, FL 32399

Phone: 850-245-8550
Fax: 850-245-8236
E-mail: edwin.abbey@dep.state.fl.us