

# **Project to Improve the Indiana National Hydrography Dataset to Local Resolution**

**IGIC Waters Workgroup**

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## National Hydrography Dataset

- Feature-based database of nation's surface water drainage system
- Network of streams, rivers, and other flowlines; lakes, ponds, and other waterbodies
- Other lines, areas, and points
- Suitable for modeling water flow
- Suitable for geocoding local features and events to water features

<http://nhd.usgs.gov>

## Existing condition of the NHD for Indiana

- “High-resolution” NHD Features in current NHD based upon 20+ year-old paper 1:24,000 (1” = 2,000’) USGS Topographic Quad Maps
- Inconsistencies from quad to quad
- Most users require data at better scale
- Features have changed since maps were created
- Problems with missing or incorrect names

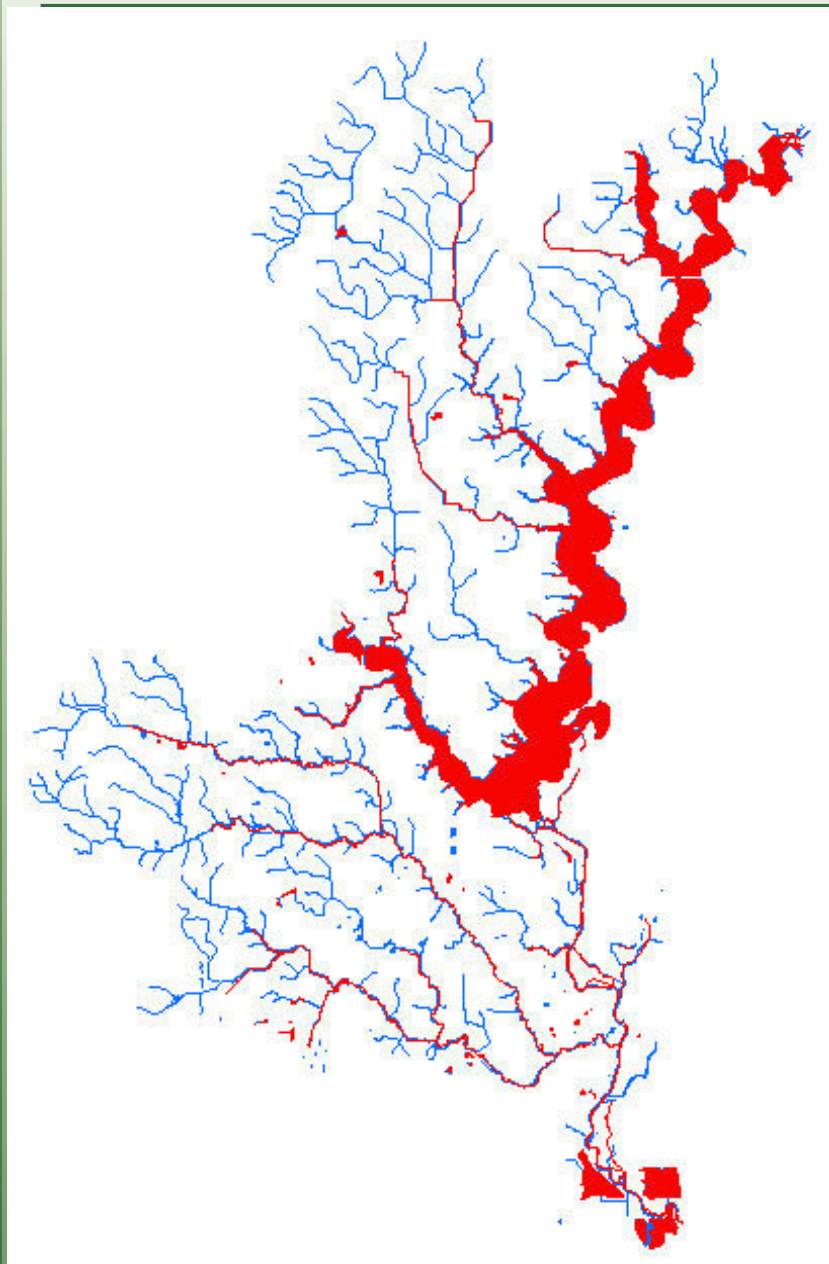
Upgrade Project: Correct errors and improve the NHD to local resolution; to be done by subbasin as funds allow.

- Correct GNIS name errors in High-Resolution NHD
- Create features from 2005 IndianaMap Orthophotography and appropriate local vector data
- Assign correct NHD feature code to each feature.
- Edgematch features to best available NHD data in adjacent subbasin
- Create water flow direction and connectivity
- Conflate to those features the NHD attributes from High-Res

## Benefits of NHD Upgrade to Local Resolution

- Corrects the existence and the locations of physical features
- Data would be at scale of 1:2,400 or 1:1,200 and aligned to 2005 IndianaMap Orthophotography
- Inconsistencies between quads will be removed
- Naming of features will be improved
- Network connectivity and flow direction will be improved
- Statewide water flow model of 2005 water features, ensuring connectivity and modeling across community boundaries
- Statewide stream addressing system with linear referencing

## NHD for Indiana

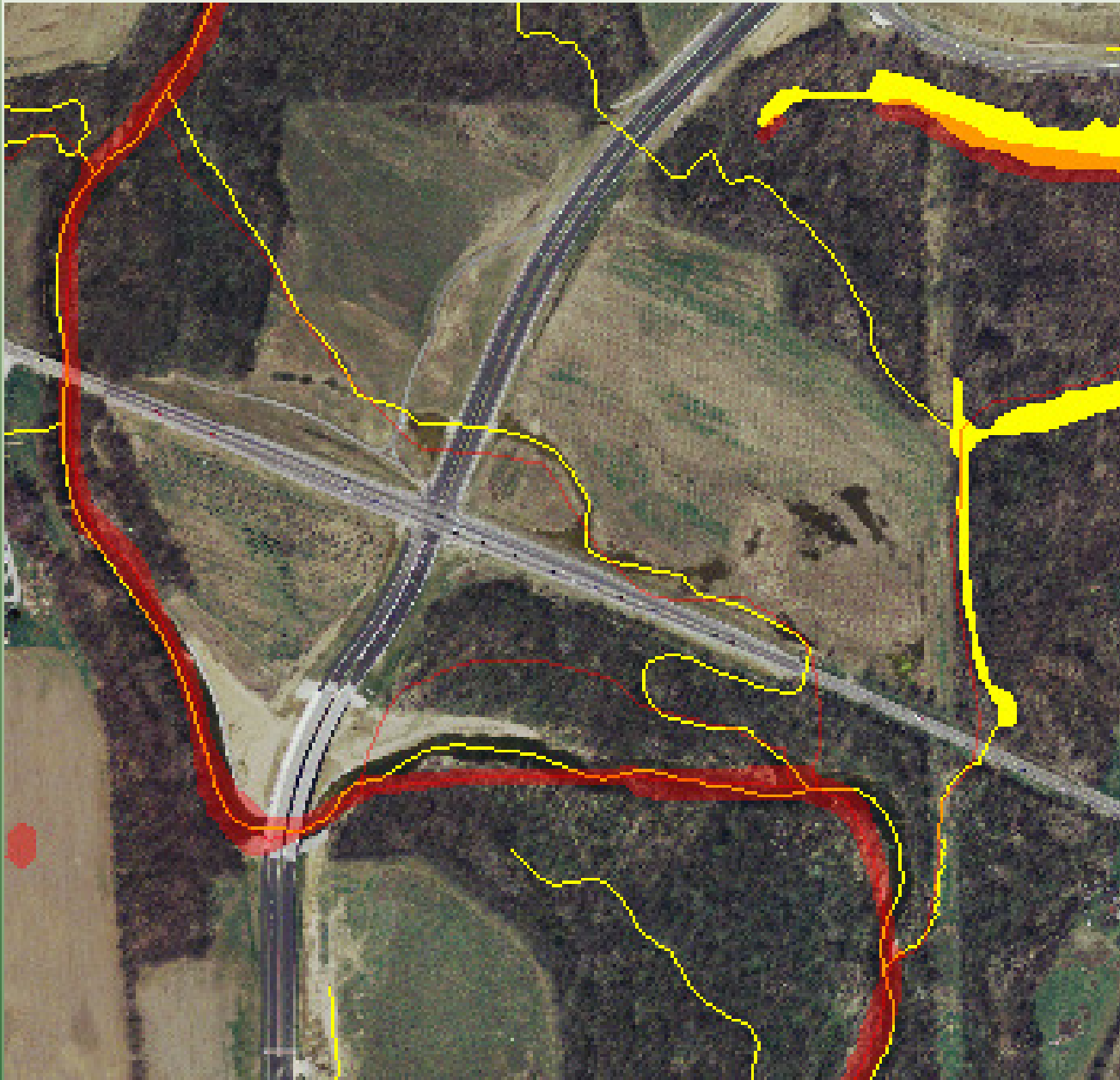


Improving the NHD will result in additional features added.

Existing High-Res NHD in **RED**

Improved NHD using 2005 DOQQ in **BLUE**

# NHD for Indiana

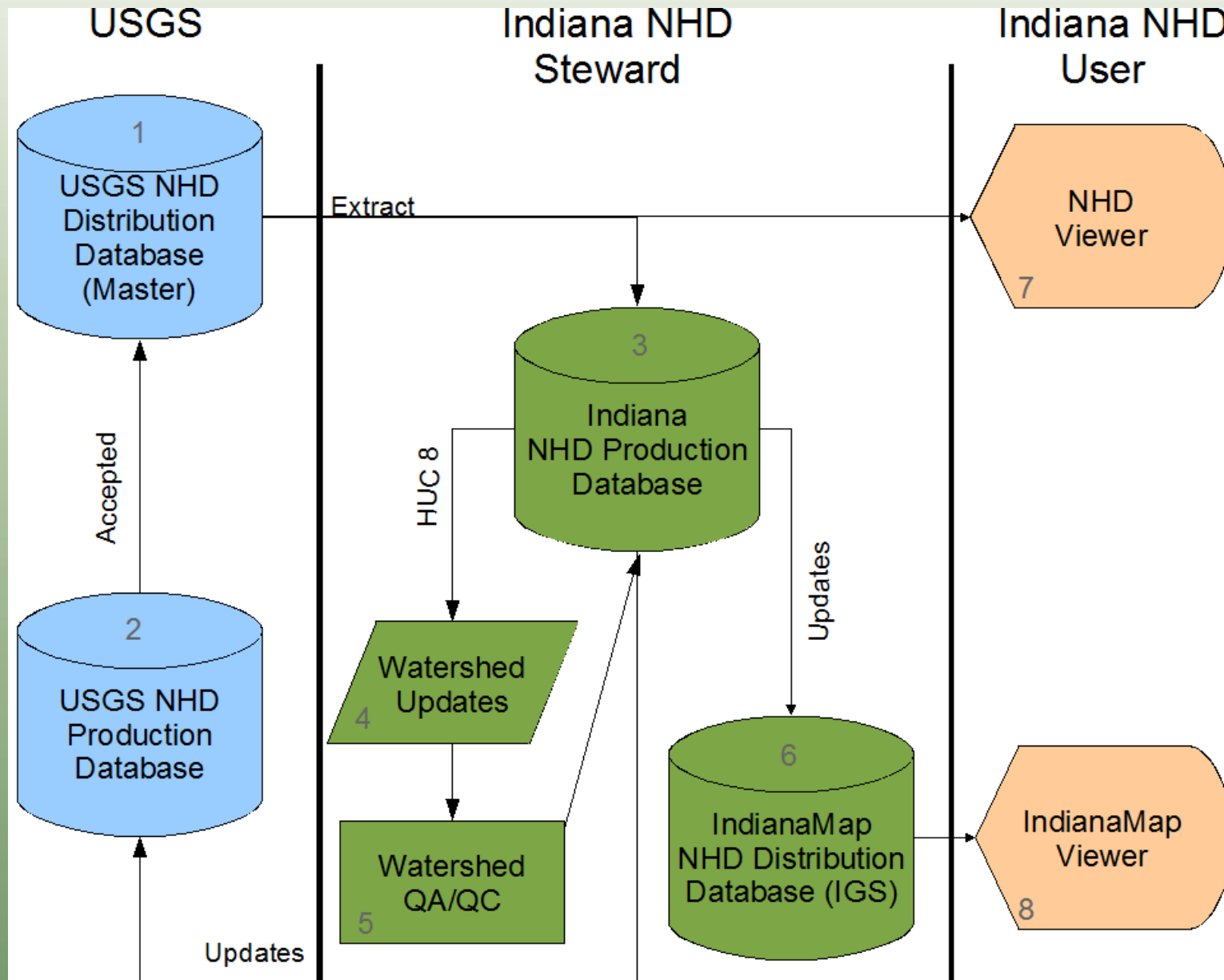


Improving the  
NHD will result in  
alignment to 2005  
IndianaMap  
Orthophotography

Existing High Res  
NHD in **RED**

Improved NHD  
**YELLOW**

## Upgrade Workflow



## NHD Upgrade: Phase One

- 1 sub-basin within the GLI funded by the US Geological Survey
- 8 sub-basins within the GLI funded by the IN Dept. of Environmental Management

Remaining sub-basins to be addressed in subsequent phases as funds become available

