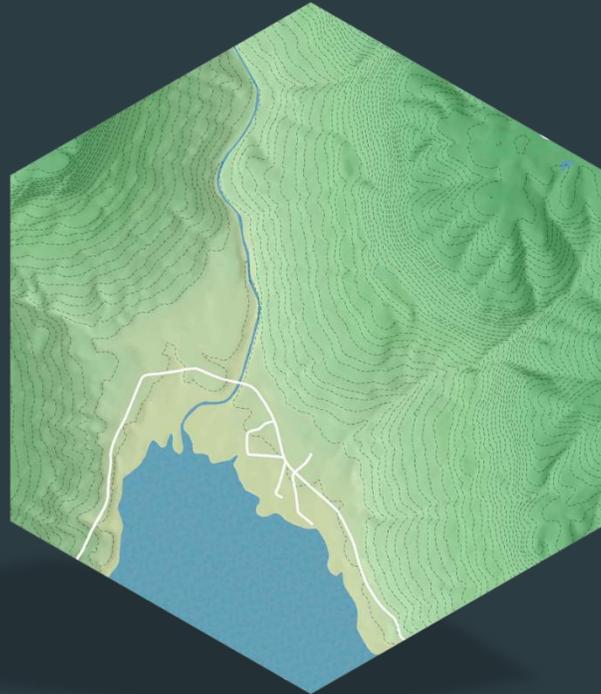


UTC's ROLE IN HOSTING AND MAINTAINING THE NRRD



Putting Innovative Technologies to Work for our Communities, Rivers, & Resources

Andrew Mindermann - University of Tennessee at Chattanooga

Overview

- ▶ Tennessee is home to world-class paddling from whitewater to flatwater.
- ▶ There was a growing demand for a statewide online water trail resource guide
- ▶ Project was started not knowing who would design or develop it. Started with State Organization but project was too big and not enough access to data.



UTC IGTLab Background

- ▶ UTC IGTLab provides a full software ecosystem
- ▶ >10 TB of regional spatial data
- ▶ Server and application development space
- ▶ Focus in Research and Development
 - ▶ Integration of Scenarios
 - ▶ Planning Tools
 - ▶ Support “One Stop” Information Center



Tennessee Valley Water Trails

- ▶ UTC was selected due to their access to data and ability to work with state and federal agencies along with watershed organizations and local non-profits.
- ▶ In 2015, the Tennessee Valley Water Trails project began.
- ▶ Working with Tennessee Valley Authority (TVA), National Park Service, and TN State Parks.
- ▶ Collected geospatial data, narrative text, images, and videos from organizations across the state.



Tennessee Valley Water Trails



Tennessee Valley Water Trails

Explore the rivers by scrolling down or navigate to a specific river by clicking the links below.

- [Wolf River](#)
- [Hiwassee Blueway](#)
- [Harpeth River](#)
- [Duck River](#)
- [French Broad](#)
- [Little River](#)
- [Tims Ford](#)
- [Stones River](#)
- [Obed Wild & Scenic River](#)
- [Mill Creek](#)
- [Big South Fork National River](#)
- [Pellissippi Blueway](#)
- [Clarksville Blueway](#)

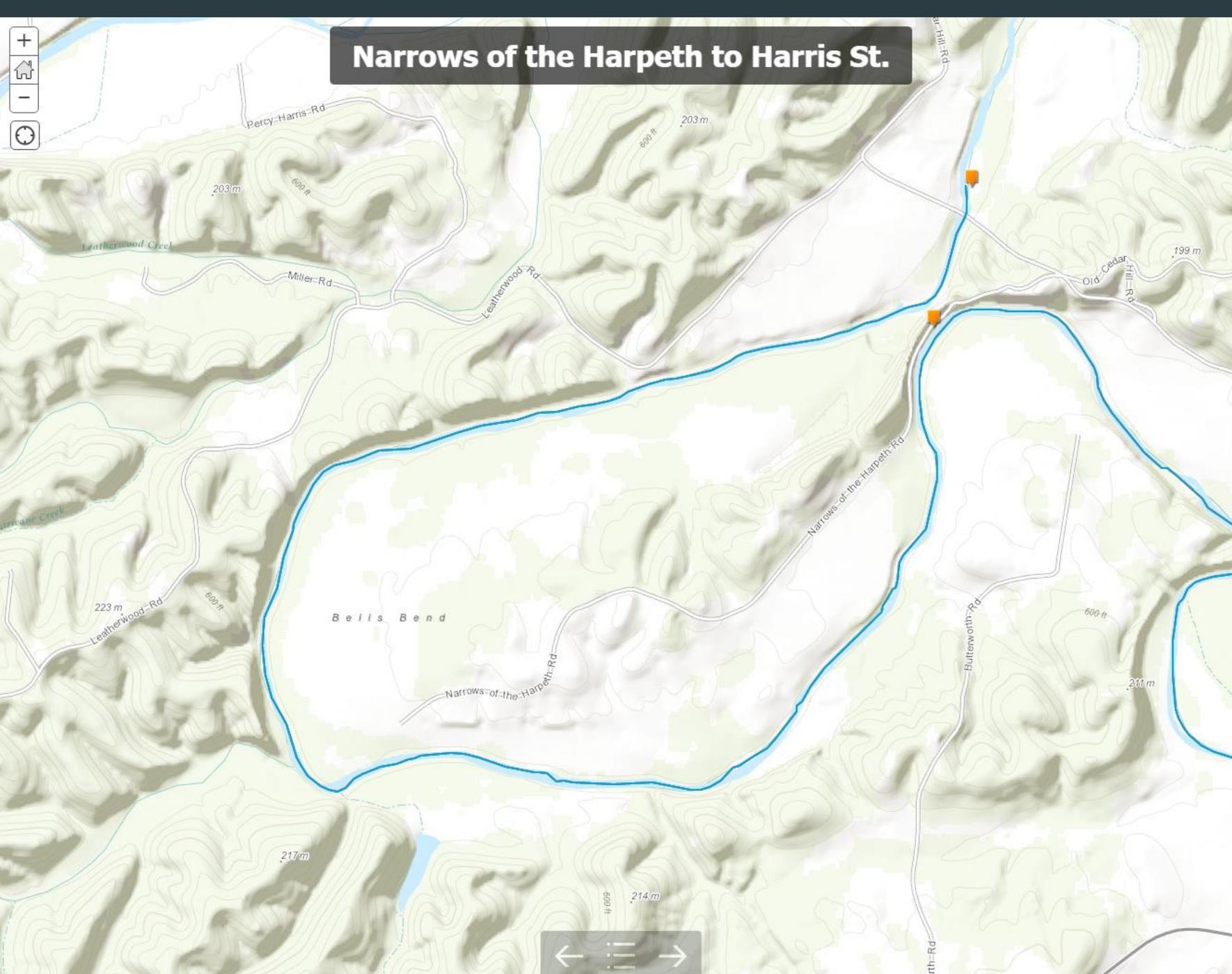
WARNING: PADDLE AT YOUR OWN RISK.

TVA, the State of Tennessee, and other project affiliates are not responsible for your personal safety, vehicle, damage to you, your boat, or your personal property.

Boating involves some risk of drowning, injury or death.



Narrows of the Harpeth to Harris St.



Tennessee Valley Water Trails

Harpeth Blueway

HARPETH RIVER BLUEWAY

Photo Credit: TSRA

As a joint endeavor between the [Harpeth River Watershed Association \(HRWA\)](#) and the [Tennessee Scenic Rivers Association \(TSRA\)](#), the vision of the Project is to promote recreational opportunities, safety and the preservation of natural and cultural features along the Harpeth River through the provision of canoe/kayak access sites and accompanying signage. This exciting opportunity will involve the cooperation of several key parties at the state and local levels, including the Kingston Springs Fire & Rescue Department in Cheatham County, who have obtained landowner permissions and installed river mile markers on a stretch of the Harpeth to improve the ability of emergency responders to locate people in need of assistance on the river. Additionally, TDOT is providing mile marker, paddling access, and bridge signs. These combined efforts will be of tremendous benefit to people who live and recreate in the area.

Access Sites

1. Lewisburg Pike Access (RM - 88.6)
2. Williamson County Rec. Center (RM - 84.3)
3. Hwy 100 (RM - 62.3)
4. Coley Davis Rd. (RM - 57.7)
5. Newsom's Mill (RM - 52.7)
6. Hidden Lake (RM - 49.8)
7. Hwy 249 Access (RM - 40.8)
8. Kingston Springs (RM - 36.9)
9. Gossett Tract (RM - 30.5)
10. Narrows of the Harpeth (RM - 28.1)
11. Harris Street Canoe Access (RM - 22.8)

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Duck River Blueway



WOLF RIVER

WEST, TN



HARPETH RIVER

MIDDLE, TN



FRENCH BROAD

EAST, TN



DUCK RIVER

WEST, TN



STONES RIVER

MIDDLE, TN



HIWASSEE RIVER

EAST, TN



NRRD

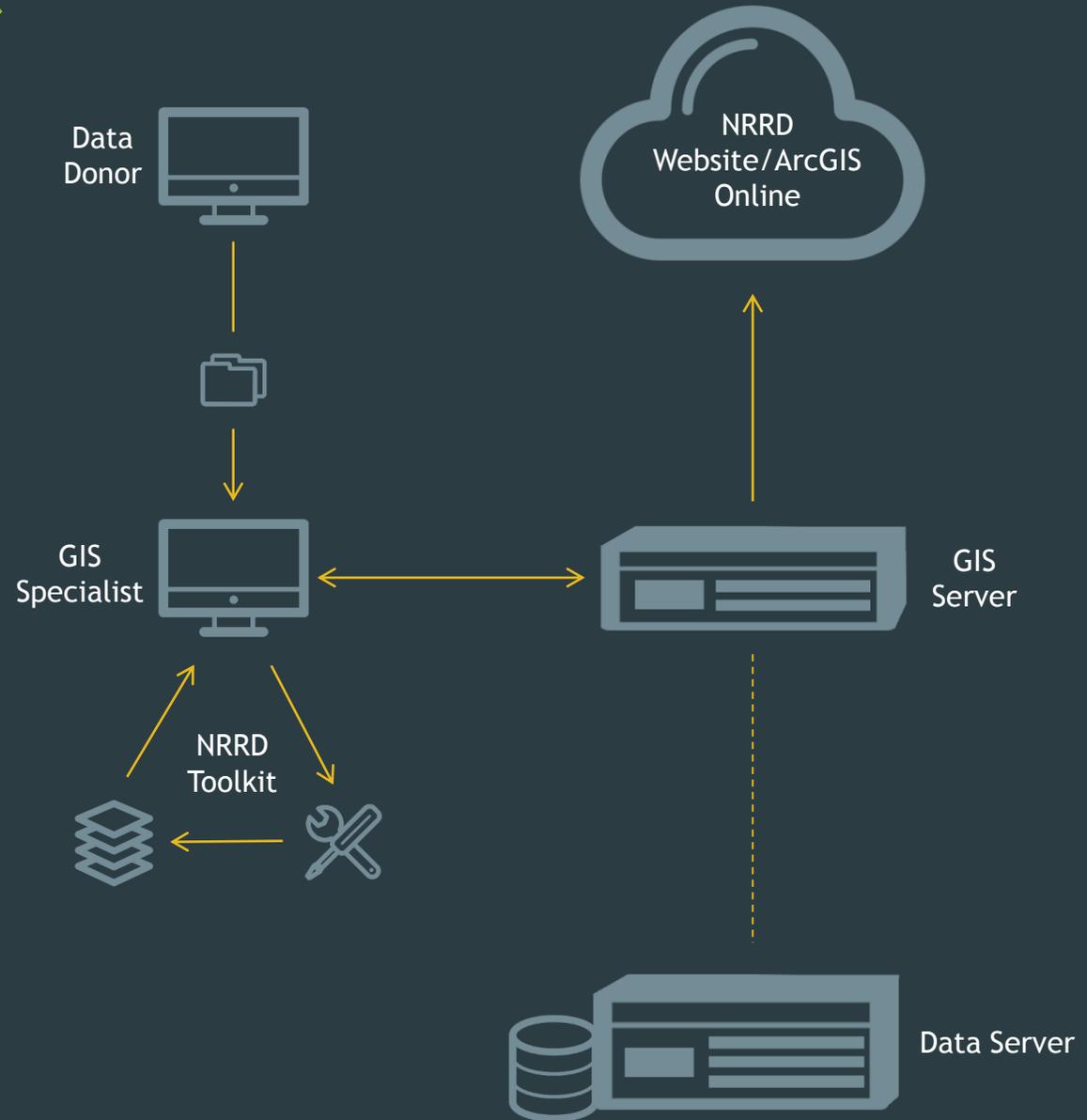
- ▶ Worked with River Management Society throughout the development of the project.
- ▶ Began talking about NRRD and integration of TN Water Trail data.
- ▶ As the NRRD began to grow, the database needed a home.
- ▶ With the resources and infrastructure available from the UTC IGTLab, it was decided that we would house the NRRD.



Data Donors and QA/QC

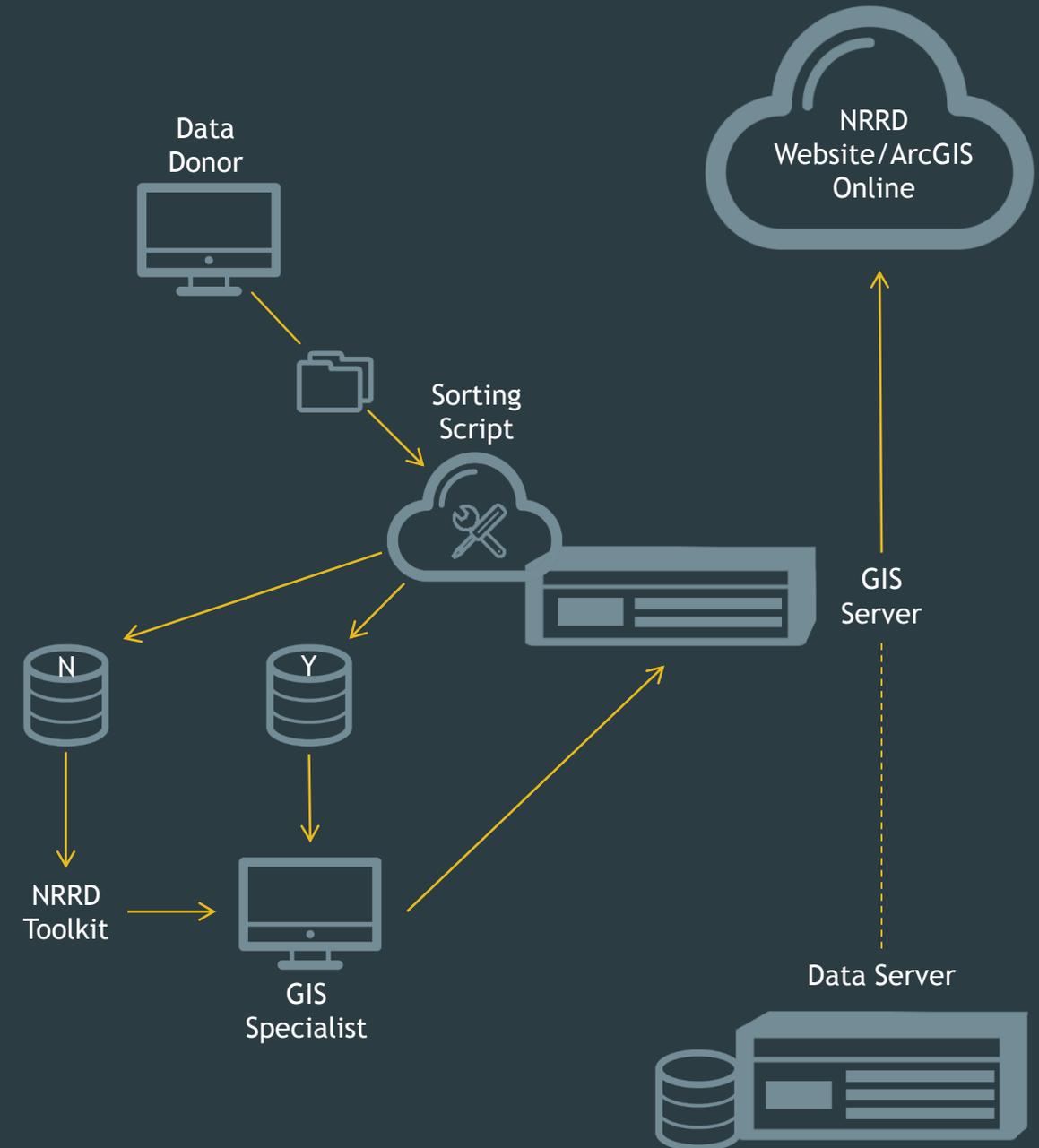
► Phase 1:

- Organizations with data that would like to donate to the NRRD will send their data to a RMS GIS Specialist for QA/QC.
- The RMS GIS Specialist performs QA/QC to match the NRRD schema.
- Connected to the UTC Server, the RMS GIS Specialist loads the data into the master database and publishes to the web.



Data Donors and QA/QC

- ▶ Phase 2:
 - ▶ Increase organizational use of NRRD Toolkit/HEM Tool prior to donation.
 - ▶ Directly load to UTC Server. Script sorts data into working or non-working for NRRD format.
 - ▶ Working data gets checked for accuracy, Non-working data gets reformatted for NRRD.



NRRD Hosting Goals

- ▶ Simplify the data donation process
- ▶ Routine updates and back up on our end
- ▶ Project sustainability with in house GIS Analyst/Specialist
- ▶ Routine performance testing





IGTLAB