

USE CASE SPOTLIGHT: ROAD EDGE POLYGON

North Little Rock Wastewater (NLRW) has been putting the Road Edge Polygon (REP) layer to good use. NLRW strives to clean out each mile of sewer pipe every 3 to 4 years using jet/vac trucks. The vacuum arms on these trucks can swivel 19 feet on either side of the truck. The two man crew is able to pull the jetter hose to manholes within 100 feet of the truck, but need additional help to reach manholes farther away. These trucks are heavy and can only be driven on paved or gravel roads. Staff needs to setup the truck within 19 feet of the downstream manhole and within 100 feet of any manhole the jetter hose needs to enter. NLRW staff converts the sewer lines layer to a point at the downstream end, then applies a buffer on the REP layer to identify which point is within the two buffer limits. This allows staff to store an attribute on manhole and sewer line features indicating that additional resources are needed for cleaning activities and then develop a workplan for cleaning the system.



NLRW also uses the REP layer in other tasks. When the county or any of the three cities served by NLRW share planned road improvements, NLRW staff intersects manholes and sewer lines with REP to identify any manholes that might need adjustment. They are also able to use cameras to inspect the sewer lines and make any repairs prior to the roadwork, reducing the need to cut a newly paved street.

Lastly, NLRW staff uses the REP layer to estimate the asphalt or concrete street repair quantities in pipeline renewal projects. Staff begins with an intersection of REP and the planned lines, then slices the layer down to reflect the restoration needs.

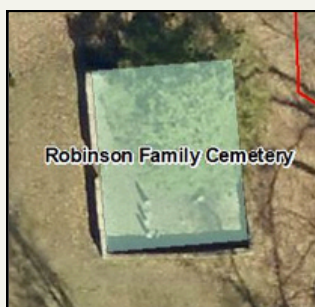
PAGIS PROJECTS

CEMETERY LAYER UPDATES

The Cemetery (CE) layer has been updated to ensure that all known cemeteries in Pulaski County are represented in the PAGis CE layer. The Cemetery layer began with just 39 records. Using a variety of information sources, PAGis staff have added 87 confirmed cemeteries, bringing the total number of cemeteries in the CE layer to 126.

It may be beneficial to add a field within the cemetery layer to help differentiate between active and historic cemeteries. We will have further discussion about this layer at a future TAC meeting.

Historic family cemetery in Pulaski County



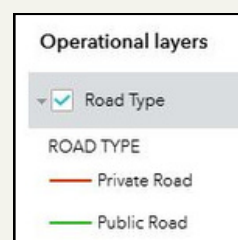
2024 IMAGERY

The 2024 certified orthophotography has been successfully added to the PAGis REST Service. You can find this imagery in the maps section of the REST Service as well as in the basemap gallery of PAGis web maps.



PUBLIC ROAD LAYER

PAGis has added a layer to the Land Ownership web map that displays private vs public roads. This layer, called Road Type, is turned off by default, but can easily be turned on using the layer list. PAGis is working to ensure that all roads are properly attributed as private or public based on each municipality's road book.



PAGIS MEMBER SPOTLIGHT



JIM MILUM

GIS COORDINATOR AND
ASSISTANT SUPERINTENDENT -
ENGINEERING
**NORTH LITTLE ROCK
WASTEWATER**

Jim Milum has worked for North Little Rock Wastewater for 37 years and has served as the GIS Coordinator and Assistant Superintendent of Engineering for 15 years.

How did you get into GIS?

In the mid to late 90s our utility recognized the benefits of GIS and the need to move away from paper maps and data silos. We joined PAGIS and I began my journey into GIS.

Is GIS what you thought it would be?

Definitely not. It was described as maps with intelligence. My short take on it now would be data, programming, analysis, problem solving, innovation, and oh yeah, sometimes we make a map to communicate things with the rest of the world

What do you do at your job?

Directly related to GIS, I'm the GIS Coordinator, Cityworks Admin, and Pipelogix/Phoenix Admin. I manage our GIS environments on local servers and the cloud through ESRI Enterprise Portal deployments, including data management, users, web applications, etc. As Cityworks CMMS admin, I manage the CW environment in the cloud and mobile deployments. This includes typical admin roles, templates, users, GIS resources, etc. With Pipelogix/Phoenix there is a daily exchange of data with CCTV data coming in from our field staff and new GIS data being pushed out to the truck. I've been able to automate a lot of things, which is a big help. I also spend as much or more time on special projects.

Are there any projects that you are excited to work on in the future?

It's not on my desk yet, but someday I'd like our community to develop our collective datasets to a level that our field staff could see buried utilities with AR glasses. This would be a huge benefit to construction and design staff. The technology already exists, we just need to develop the data from both member and non-member entities.

Do you have a favorite GIS resource?

There are some great data repositories that I enjoy exploring, but as far as technical resources, by far it is my GIS peers. Google and Chat GPT might help with a tool or task, but nothing compares to talking to one of our group that has walked the path you are taking. They point out the pitfalls ahead and don't laugh too hard at the clunky code you might have written.

If you could have any superpower for a day, what would it be and why?

Time travel. I'd like to see some folks I miss dearly. They could use a hug. Also, I would then slay at Texas Hold'em.

If you could visit any place in the world, where would it be?

Zihuatanejo; see if I could stumble across Andy or Red.

PAGIS WORD SCRAMBLE

Unscramble the names of the four road related PAgis layers to get a hint about the scrambled message below.

1 serett = _____
 rnteiecenl = _____
 sgnieasdrd = _____

2 aodr = _____
 eegd = _____
 gloynpo = _____

3 rdoa = _____
 gdee = _____
 stnnicitero = _____

4 odra = _____
 geed = _____

The red, bolded letter spaces above represent a beginning letter for each word below.

Message:

“Whether it’s a dirt path or a digital line...

yerev = _____

daro = _____

dsela = _____

eermeohsw = _____”

First Quarter Word Scramble Solution

Orthorectified aerial photography ensures that PAgis digitizes buildings and roads accurately.