SML
Sedimentation Monitoring Plan
Project 2210-197

Input on 2021 Draft Report

SML Citizen Action Group

September 30, 2023, updated 10/25/23

Section I

1. Current Sedimentation Monitoring Process
2. Locations monitored in the report

Section II—Citizen Input

1. Gills Creek Location specifically
    - Background, location, topography, original water depth, areas affected in Gills Creek
    - DRAFT 2021 report on Gills Creek, maps, measurements
    - Development, comparisons, progressive aerial views
    - Specific causes of Gills Creek sediment and debris upstream
2. Serious Consequences of growing land masses—Illegal Hunting, littering

Section III—Citizen Input

1. Other SML Locations affected by sedimentation
2. Consequences of increased sedimentation
    - Harmful Algae Blooms (HAB)

Section IV—SO WHAT

Section I: Sedimentation Monitoring Process Thus Far

AEP submitted the first baseline report in 2010. There were minor comments, SMLA was one.

AEP submitted the second report in 2016 w/comparisons, and with little comment from anyone but SMLA.

AEP did not submit the required 2021 report. Requests from SMLA and TCL to the shoreline management team went unanswered for nearly 2 years. FERC did not ask for the delinquent report either.

In Spring of 2023, after almost 2 years, AEP posted a letter to FERC on the elibrary, stating that they DID the measurements and report in 2021 but failed to publish the draft for comment. They committed to submitting the draft to FERC by June 30, 2023. FERC agreed to that.

AEP missed their own deadline of June 30, and August 1st *we* posted a comment to the elibrary asking FERC where it was. We got a phone call from FERC promising to follow up.

On August 7th, two letters were posted on FERC elibrary. FERC's letter to AEP said to have the draft in 30 days from date of letter. Simultaneously, AEP's letter said we've had staffing problems and will have it October 31st. FERC responded to this letter, citing citizen concerns, and demanded a draft be posted by August 31st

On August 31st, FERC submitted a draft of the overdue Sedimentation Monitoring Report, giving the various Technical Review Committee Representatives 30 days to submit comments.

At this time, there have been no public input opportunities other than posting to the elibrary for citizen comment. Questions concerning sedimentation have not been entertained at Shoreline Management input meetings. AEP contends that sedimentation storage in coves is not their responsibility.

We refers to Barbara Ferrell, acting on behalf of the nearly 250 members of the SML Concerned Citizens Action Group

24 Areas Surveyed-8 Boat Launches and 16 Others

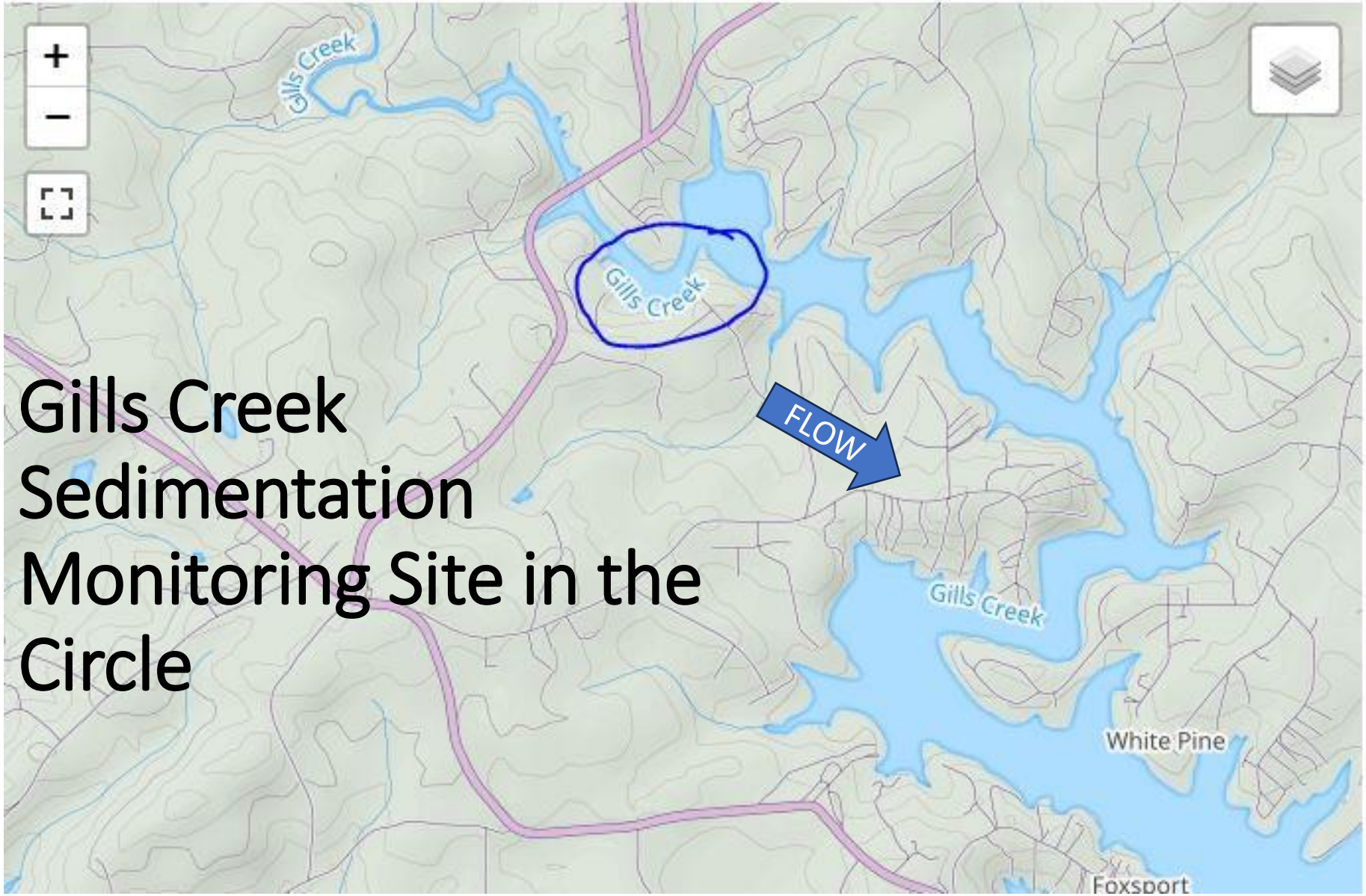
Anthony Ford Boat Launch
Beaver Dam Creek
Becky's Creek
Betty's Creek
Big Indian Creek
Blackwater River (headwaters)
Craddock Creek
Gills Creek
Grimes Creek
Hales Ford Boat Launch
Hardy Ford Boat Launch
Leesville Dam Boat Launch
Little Indian Creek
Lynville Creek
Mariners Landing
Mitchell's Cove
Myers Creek Boat Launch
Old Woman's Creek
Penhook Boat Launch
Pigg River
Roanoke River (headwaters)
Scruggs Boat Launch
Standiford Creek
State Park Boat Launch

Section II
Gills Creek Monitoring Site Citizen Input

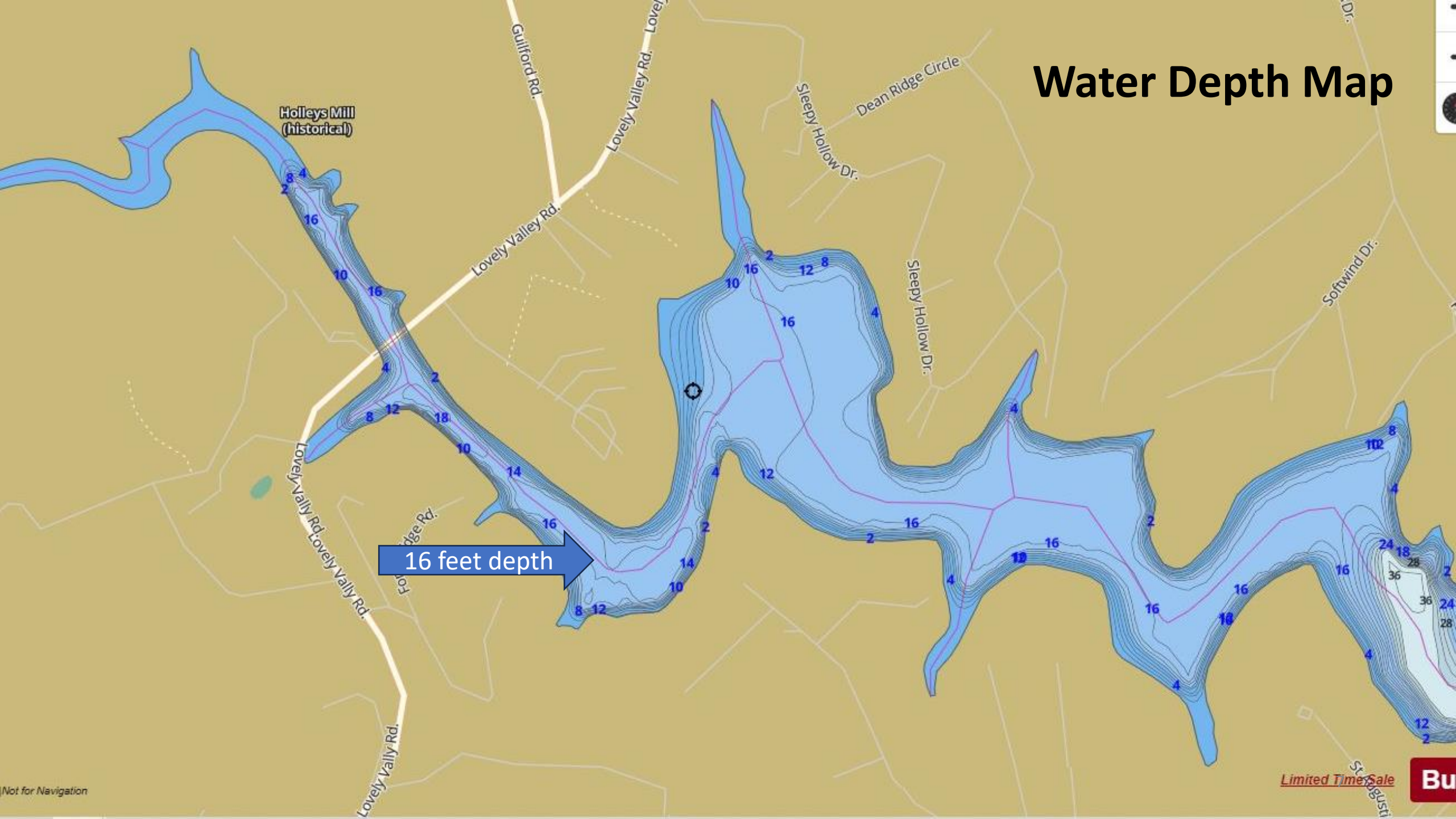
AEP is monitoring the portion of Gills Creek that flows between Inlet Drive and Forest Shores 1&2 neighborhoods south of the Lovely Valley Bridge. The changes that have taken place in this location are significant, due to sedimentation and debris collecting without prevention or mitigation. Subsequently, citizens further down Gills Creek are concerned about their sedimentation rate as well. Water access via boat ramps, private docks and lakefront access are negatively impacted significantly.

[*I'll do a deeper dive on this location since this is where I live, and it will set the stage for other SML input afterwards. I've done my best to use labels and flow direction to orient readers as to location. BF*]

Gills Creek Topo Map in Franklin County VA



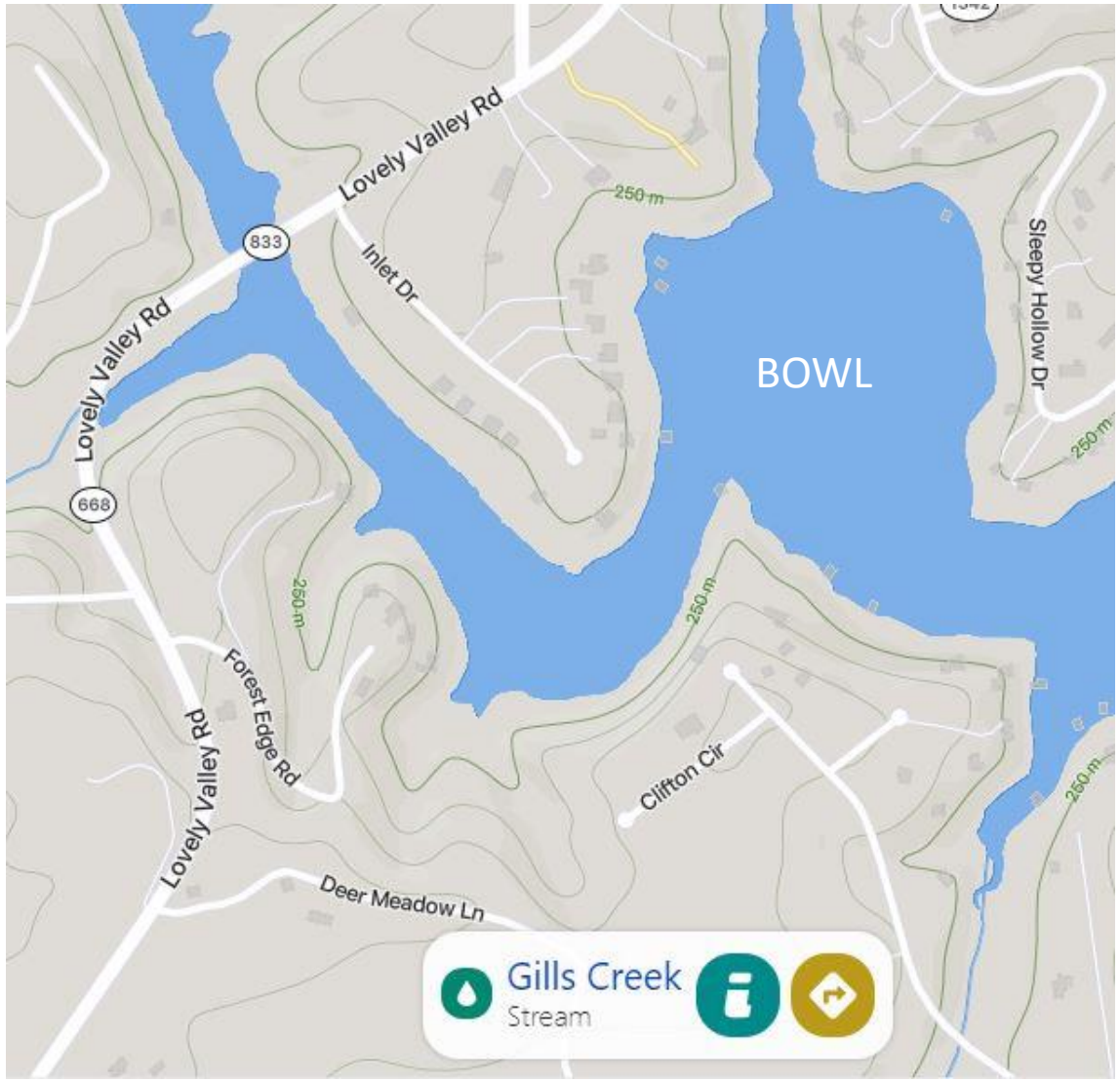
Gills Creek Sedimentation Monitoring Site in the Circle


Water Depth Map
Holleys Mill (historical)
Gulford Rd.
Lovely Valley Rd.
Lovely Valley Rd.
Dean Ridge Circle
Sleepy Hollow Dr.
Sleepy Hollow Dr.
Softwind Dr.
Lovely Vally Rd.
Lovely Vally Rd.
Lovely Vally Rd.
16 feet depth
(Not for Navigation
Limited Time Sale

Some of the Impacted Homes with Waterfront Property (roughly 50 homes/properties)

- Forest Edge Road
- Inlet Drive
- Lovely Valley Road
- Forest Shores Road
- Clifton Circle

Secondary areas are around the bowl on Sleepy Hollow Drive

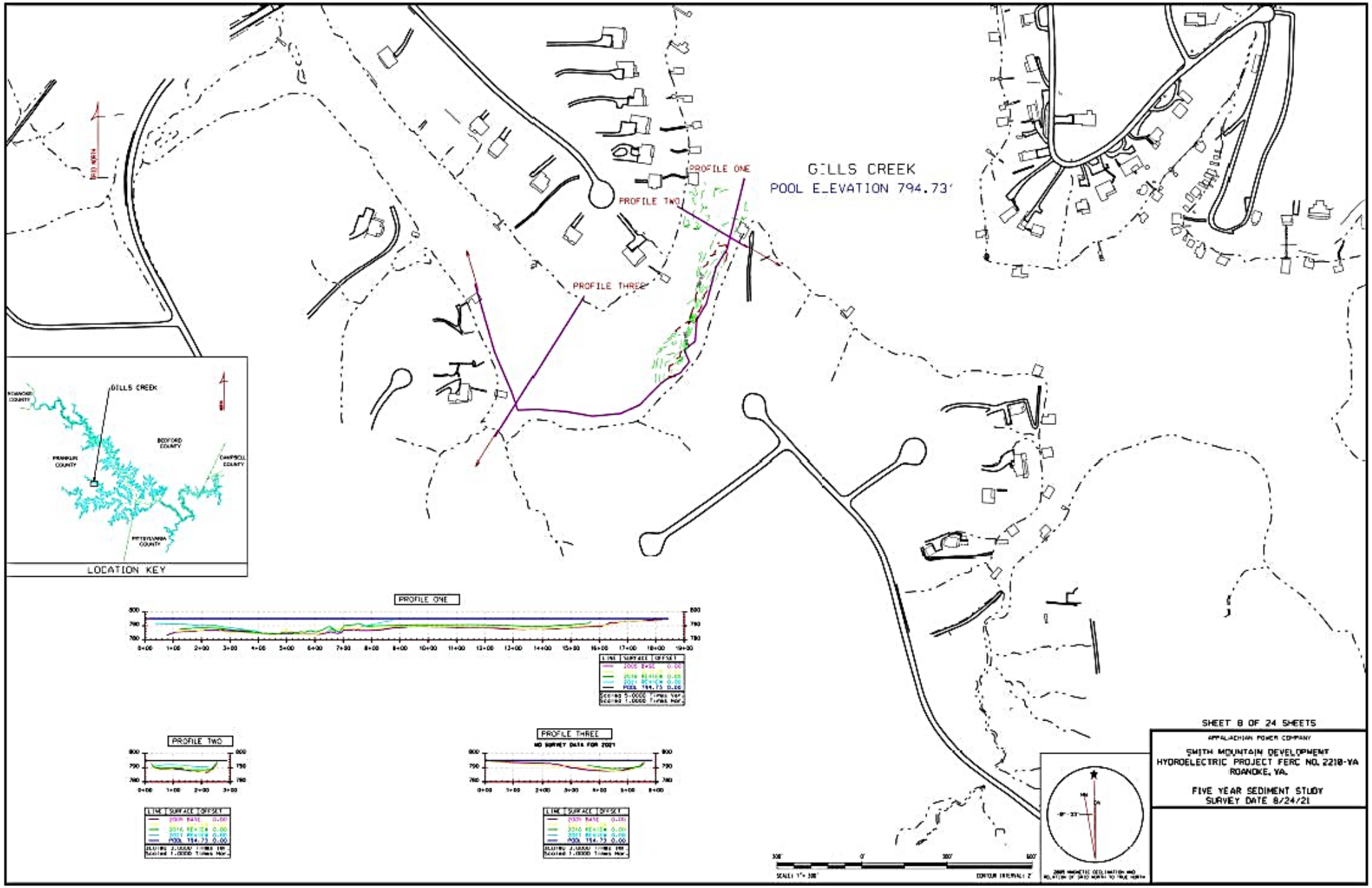


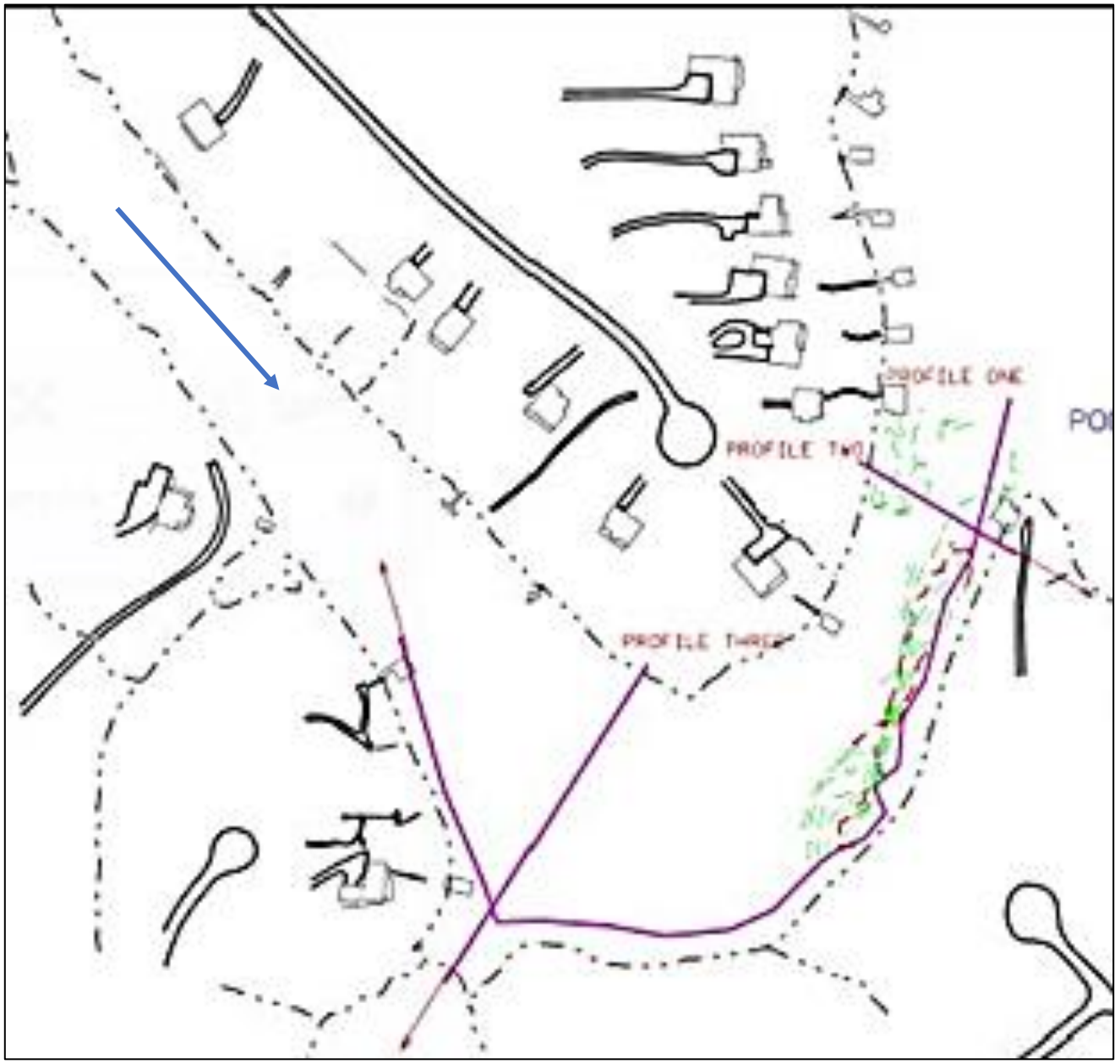
Gills Creek Reported Survey Results in DRAFT 2021

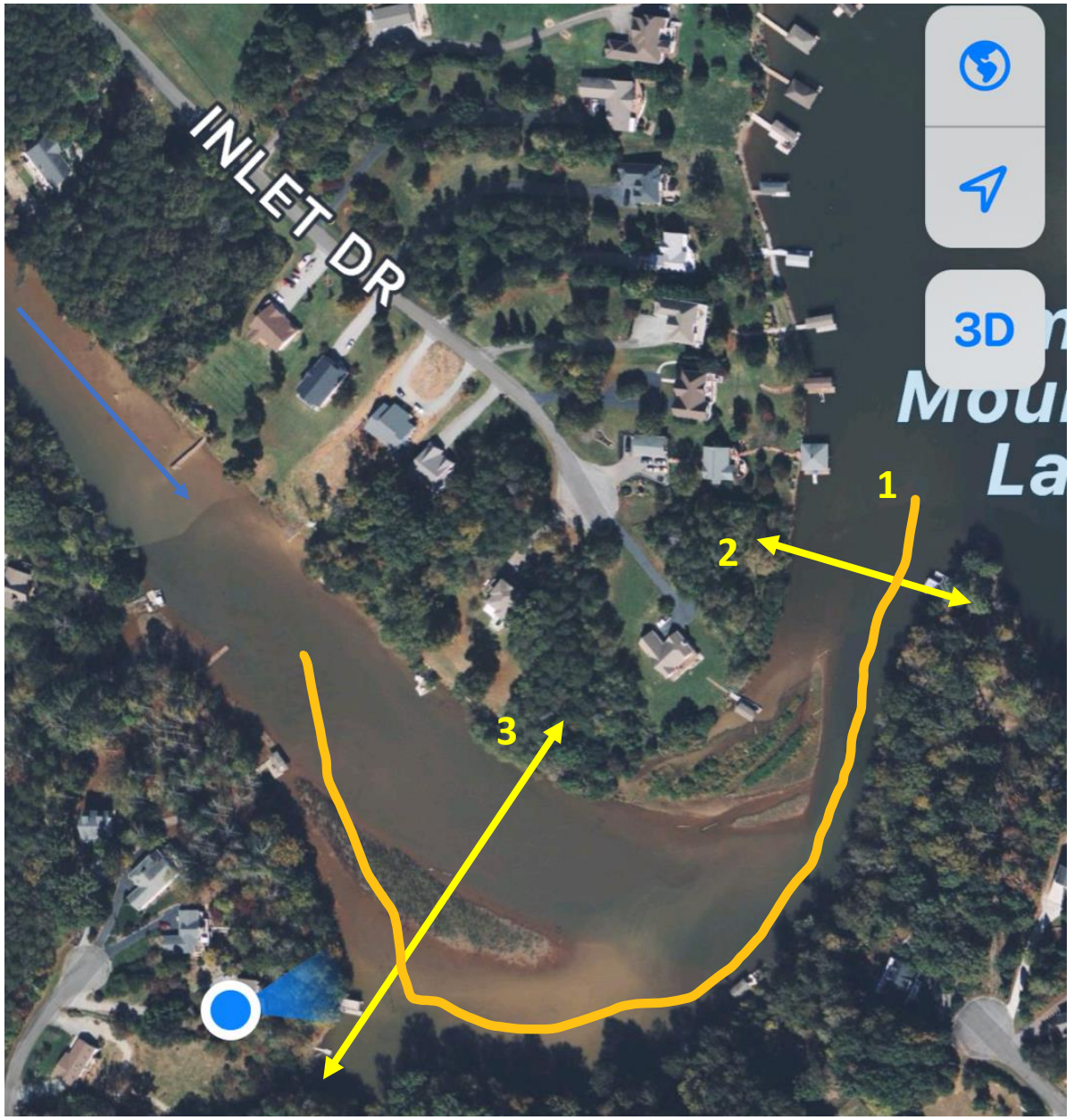
"In comparing the 2021 survey data profiles to the data from the prior surveys, the 2021 data for the Gills Creek site (Sheet 8) indicates slightly increased sediment deposition on portions of Profiles One and Two." [NO COMMENT MADE ON MISSING PROFILE THREE]

[No Survey Data for Profile Three]

The following slides will dispute this depiction of "slightly increased sediment deposition" and show exactly WHY profile three is missing.

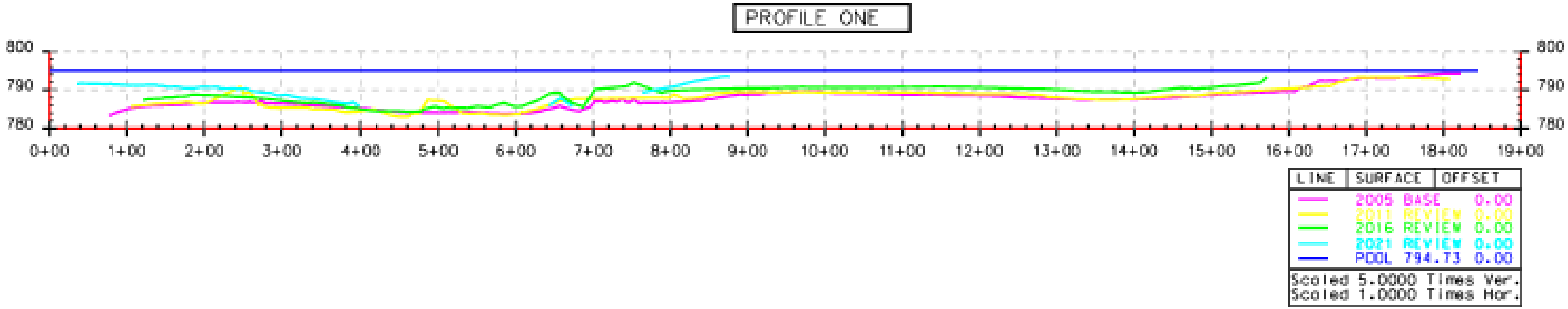

GILLS CREEK
POOL ELEVATION 794.73'
PROFILE ONE
PROFILE TWO
PROFILE THREE
GILLS CREEK
FRANKLIN COUNTY
BEDFORD COUNTY
CAMPBELL COUNTY
PITTSYLVANIA COUNTY
LOCATION KEY
PROFILE ONE
PROFILE TWO
PROFILE THREE
NO SURVEY DATA FOR 2021
SHEET 8 OF 24 SHEETS
APPALACHIAN POWER COMPANY
SMITH MOUNTAIN DEVELOPMENT
HYDROELECTRIC PROJECT FERC NO. 2210-VA
ROANOKE, VA.
FIVE YEAR SEDIMENT STUDY
SURVEY DATE 8/24/21

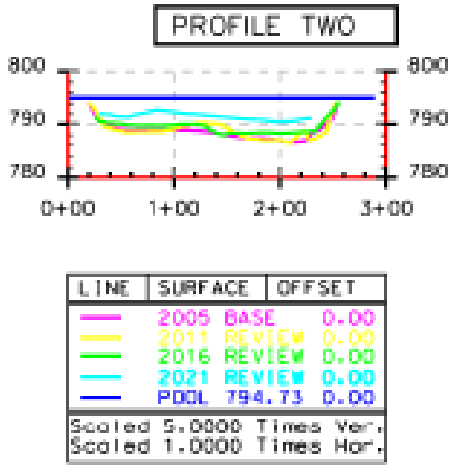


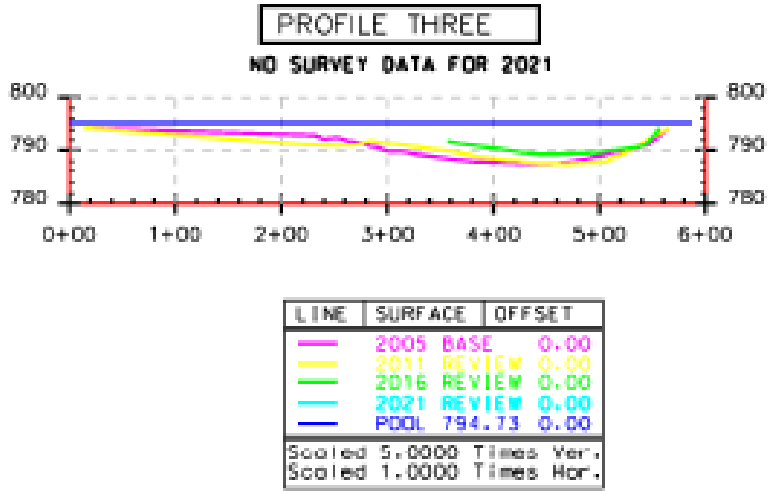


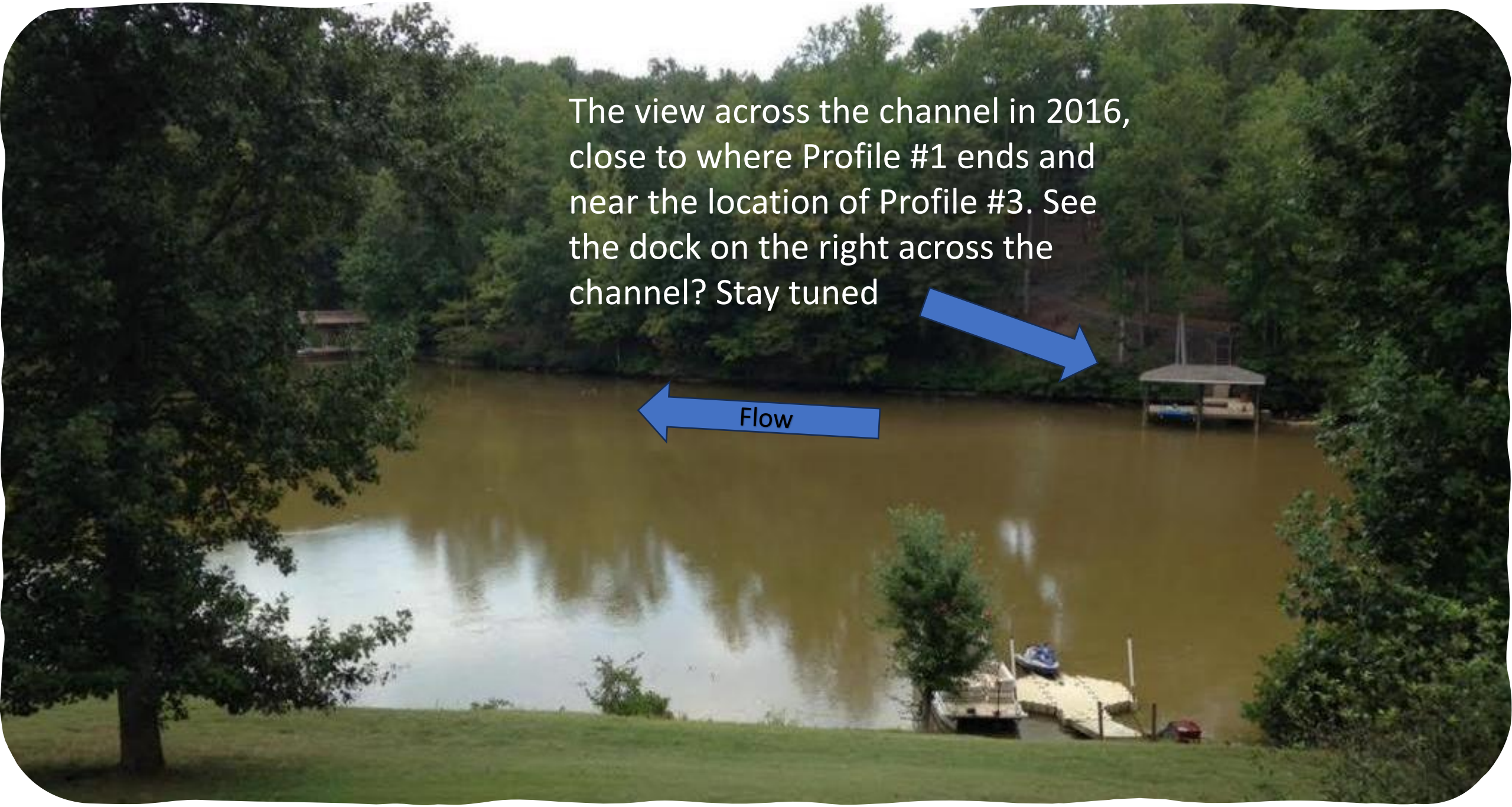
Comparing Gills Creek Survey Area map and geomap from approx. 2020

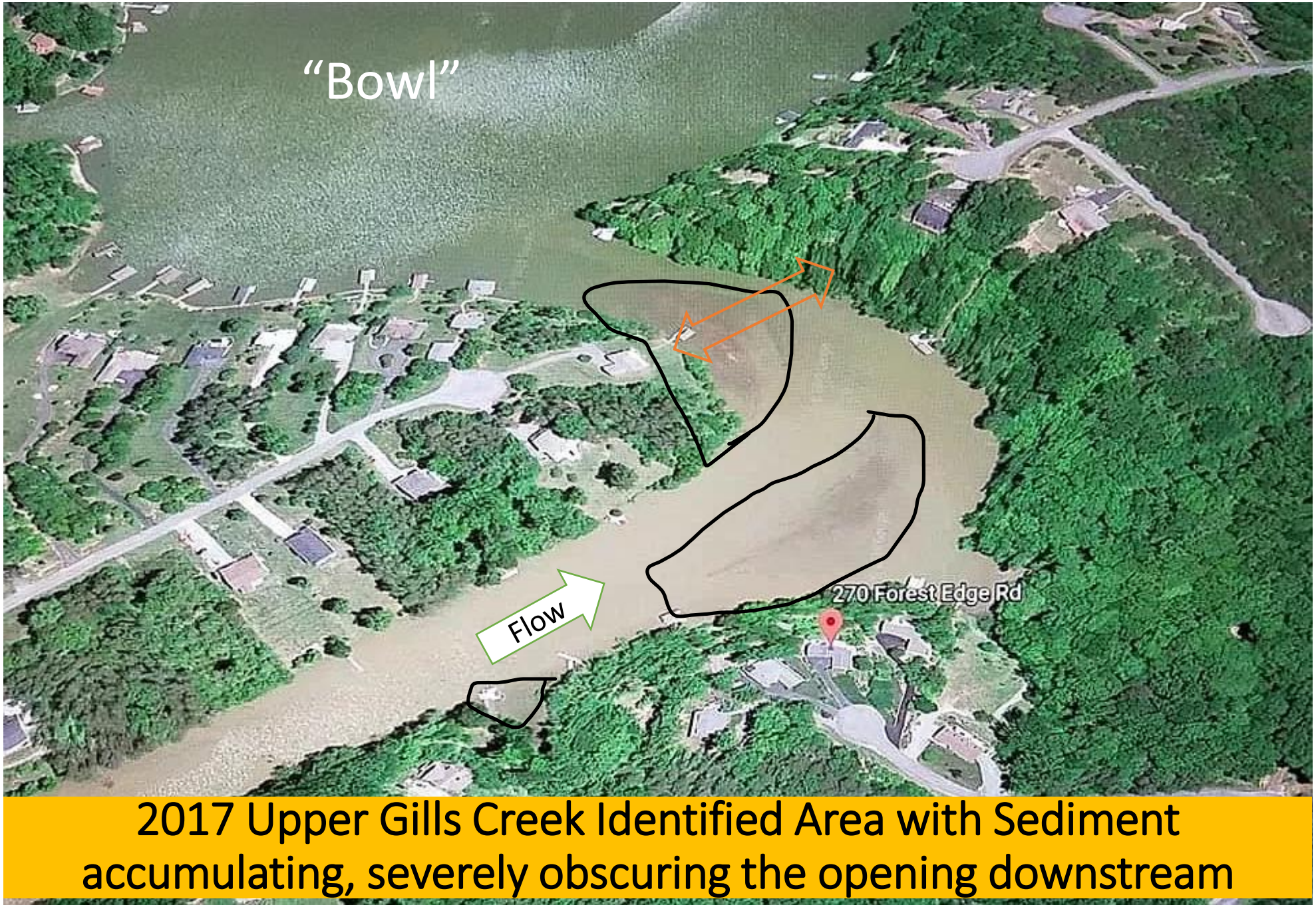
Profile Measurements—Gills Creek
(very difficult to read -no way to interpret these results and missing information)








The view across the channel in 2016, close to where Profile #1 ends and near the location of Profile #3. See the dock on the right across the channel? Stay tuned
Flow



2017 Upper Gills Creek Identified Area with Sediment accumulating, severely obscuring the opening downstream

Continued depositing of silt, until vegetation is growing thicker and trapping even more sediment, almost closing the mouth of the channel and rendering many docks unusable

A winter 2021 photo, when sediment continued to grow. The direction of the creek flow to the dam is marked. The two large sediment islands are marked.

The severely narrowed Gills Creek Channel looking upriver from the “bowl” where sediment deposits have obstructed a dock (where the X is) and created navigational hazards, more silt and sediment deposition, and debris fields. The docks below the X, outside of the monitoring site, are also experiencing increased siltation and debris.

A closer shot from a dock in the channel. Below the left arrow is the home and dock marked as X in the previous slide. This Inlet home was waterfront. The angle is looking toward the “bowl” (arrow to the right). This house has a completely obscured large dock due to a huge buildup of stored sediment. Due to this sediment, the channel leading you see is now only a third as wide as the original lake shows. Profile 2 on the measurement goes across that channel.


Remember this 2016 photo and this dock?

That dock now looks like this. Completely unusable. This is the Tucker property. 7 years later.


This is the view from our dock in the cove, likely around 2005
Large Dock at the mouth of Gills Creek
Water Flow South from Bridge
2005


Same dock. Can no longer see the Large Dock at the mouth of Gills Creek, the island blocks it
Water Flows from Bridge BEHIND Sediment Island
SEDIMENT ISLAND
2023

Unintended Consequences of Allowing Buildup in Gills Creek—Hunters inhabit the island pre-dawn in early October with decoys and loud gunfire!

Waterfowl hunting is not permitted on public waters within 150 yards (450 feet) of a residence without the consent of the landowner. (Confirmed with DWR)

These hunters are 243 ft from our home-these are videos taken from our home.

Gills Creek Hunting

Gills Creek Hunting 2

People using Sediment Island to hunt often leave bottles, cans, broken decoys, batteries and litter….

Above is a view of the north end of Gills Creek Sediment Island as it connects to the Tucker's dock, shutting off lake access from their dock.

What Causes this Mess in Gills Creek?

- Little or no regulation upstream to keep cattle out of the creek
- Construction and clearing of shoreline upstream
- No collection of debris that washed down after large storms, getting caught in the curve and collecting sediment flowing down. *Debris used to be collected in the upper Gills Creek area.*
- No mitigation of sediment before it creates a problem for navigation
- No plan in place to ensure AEP permitted docks will have flowage for use in the future
- No response to citizen's request for help—AEP told me that they don't own these islands, the original landowner does!

Unconfined Cattle above the Gills Creek Lovely Valley Bridge

Photo taken from a kayak

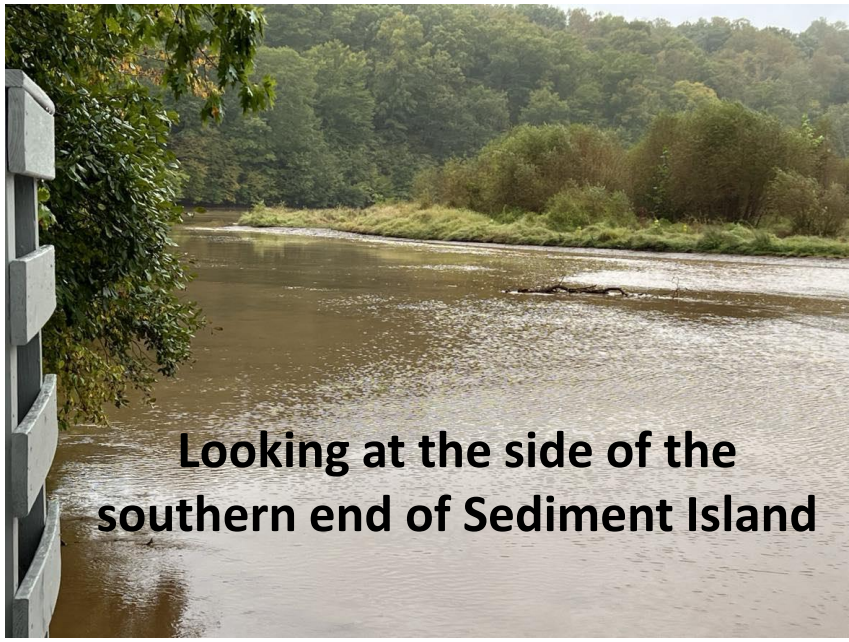
Section III
More Citizen Input* from the Community Action Group formed in August 2023

- Blackwater—Gus Miller B49, Tammy Rausch B41, Susan Milisits B49, Sid Kirstein B49, Suzy Bowman B49
- Roanoke River-Kira Soriano R47, Nathan Wagner R43, Sharon Davis R61, Todd Funk R34, Jim Thorne R61, Mary Vogelsong R62, Ken Farabaugh R25, Tom Cahill R25
- Gills Creek—Barb Ferrell, Dan Nichols, Becky McCarthy, Cheryl Hardy, Leslie Tucker, Randy Frye, Bob St John, Dean Wood, Mike Krause
- Craddock Creek—Gerry WK
- Becky's Creek—Allison Bruce

* *All comments submitted directly from residents*

Joseph Dean Wood, Gills Creek, Forest Shores, Lot 16, Wirtz, Va

To whom it may concern, We own a waterfront lot that was purchased in February 2021. Over that time a sediment island has accumulated from barely visible to an entire island with mature bushes and small trees. The depth of the water since 2021 has almost accumulated one to 3 feet of sediment in various places along our property and will soon be impassible even by kayak. Navigation markers since 2011 show the channel in front of our property used to be 15 to 18 feet deep. The rapid increase in the accumulation of sediment is exceptionally concerning. I have also heard from residents that own lake front property on the Blackwater River near markers B 48 and B 49 that AEP has lost a contract for dredging. Due to this loss of contract, I have heard AEP's plan is just to simply remove those as navigational markers to let the sediment fill-in. As you know, the accumulation of sediment affects the water quality of the lake and the property owner investments on Smith Mountain Lake. I encourage your support to represent those who are contributing to the economy of Smith Mountain Lake and those property owners who have invested in this area. It is the responsibility of AEP to help control sediment accumulation and abatement. We have to follow stringent rules as property owners, and I expect that AEP manages the welfare and investment of this lake equally.



Looking at the side of the southern end of Sediment Island

Typical debris imbedded in shallow water beside dock

Cheryl Amos Hardy, Inlet Drive, Gills Creek

We have cleaned tons of debris out from around our dock that gets stuck in the sediment in the 11 years we have lived here. Thank you

Bob St John, comment on Inlet Drive

My wife and I moved to SML about 7 years ago. We looked at many houses before choosing the home we are now in, and it turned out to be perfect for us.
In concert with the sedimentation problem addressed in this thread, one of the houses we looked at was on Inlet Drive. The house wasn't good for us, but more importantly, even if the house was good for us, we would not have bought it due to the obvious sedimentation problem even then. I am sure that homes in these sedimentation areas are worth substantially less than they would be if there was no sedimentation associated with them. So, in addition to the more obvious problems (asthetic, inability to use, etc), there are negative monetary impacts on the families that own properties in these sedimentation areas.

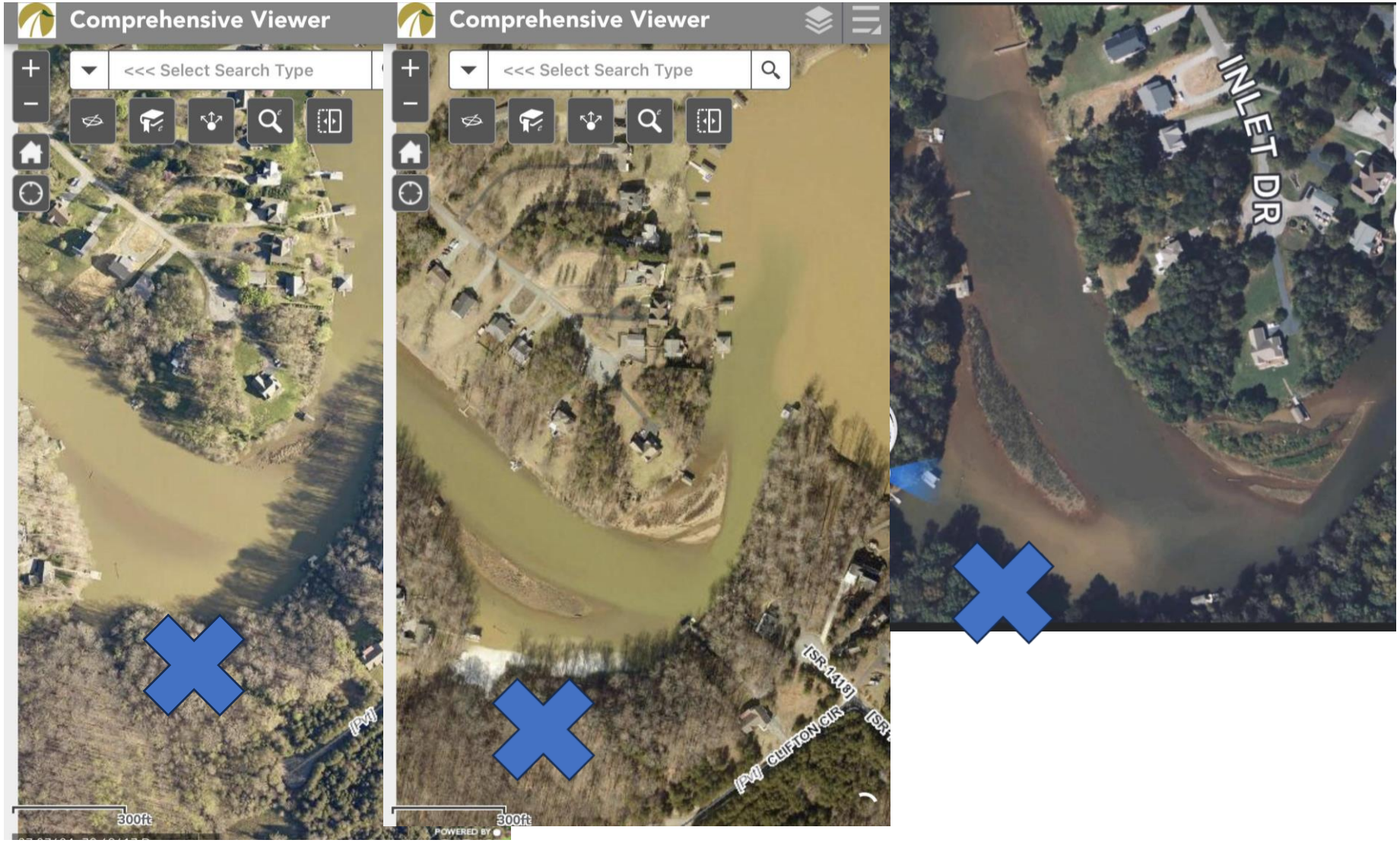
Becky Tilden McCarthy, Gills Creek

Thank you for taking up this issue. It's so important to the health of the entire lake. We have owned on Gills Creek for almost 3 years, and I am shocked by how much those islands have grown in that time. We are a little further down near the "cliffs" but I'm afraid it's only a matter of time before we will be affected.

Randy Frye, Gills Creek

I am a concerned citizen Randy Frye, owner of lot #8, Forest shores subdivision in Wirtz VA. First picture is when we purchased property in 2020. Other pictures are the island that keeps growing and damming our property in. Please help with some type of dredging as this sedimentation buildup impacts marine life, property values etc. Randy Frye

(X indicates property location approximately)



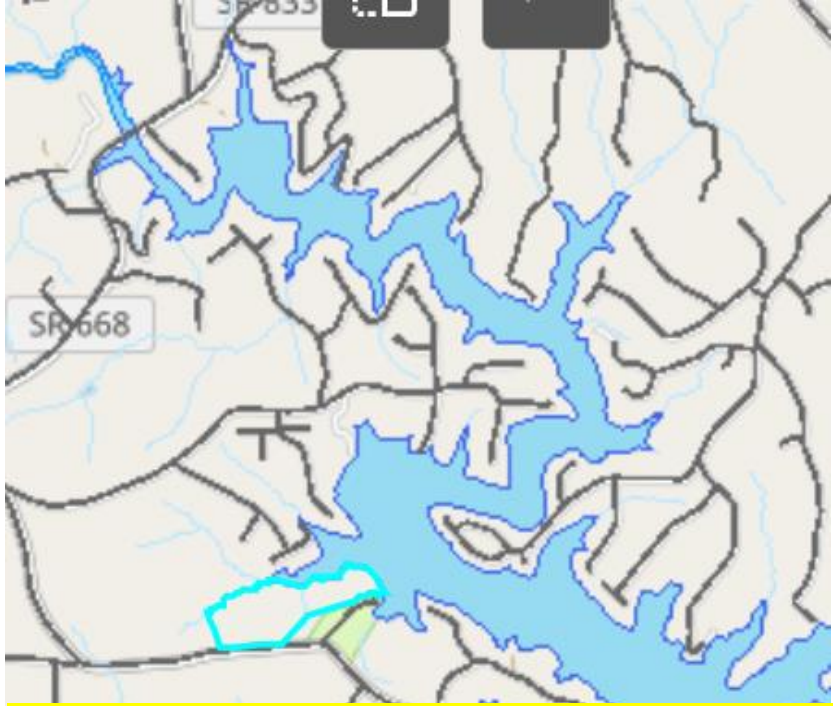
Leslie Tucker, Gills Creek

Pics off our dock on Gills Creek, off the main channel, Sept 2019 and today (Sept 2023). So very disappointing

Same photo shot at the lake from the dock 4 years later

Full sediment on one side of dock and debris other

This is the 39-acre property with heavy run off



Outlined property on GIS map with heavy run off

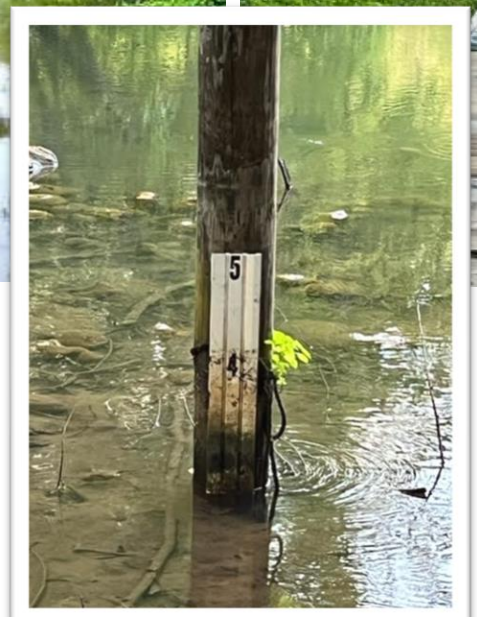
Mike Krause
Gills Creek

I live at the end of Gills Creek. [in between G6 and G7 near the Blueridge Campground & Marina]. The attached picture of the end of our cove on Gills Creek I took today. There is a property across from us that has heavy run off during a hard rain that turns a section of the lake brown.

Dan Nichols, Gills Creek

We live on the Inlet at the end of Gills Creek just outside of profile one in the main section of the lake. We have been here for 10 years and have seen the center of the inlet lose depth every year from sediment flowing in from the creek [*the GC section in the monitoring report*]. The depth has drastically dropped to just over 2.7 feet at normal water levels. 10 years ago, this depth was well over 9 feet. At this rate we may see an island develop in the center much the way the island at the mouth of the creek appears. To get the full picture we need profile measurements extended to the center of the lake* on profile one and measurement data on profile 3.

Sharon Davis, Lynville Creek near R61



You can see the 5-foot water depth marker--3 feet of sediment in just over 4 years

Ken Farabaugh
Roanoke River R25

Tom Cahill
Woodland Cove R25

This is at the end of Woodland Cove at R25 after a rain

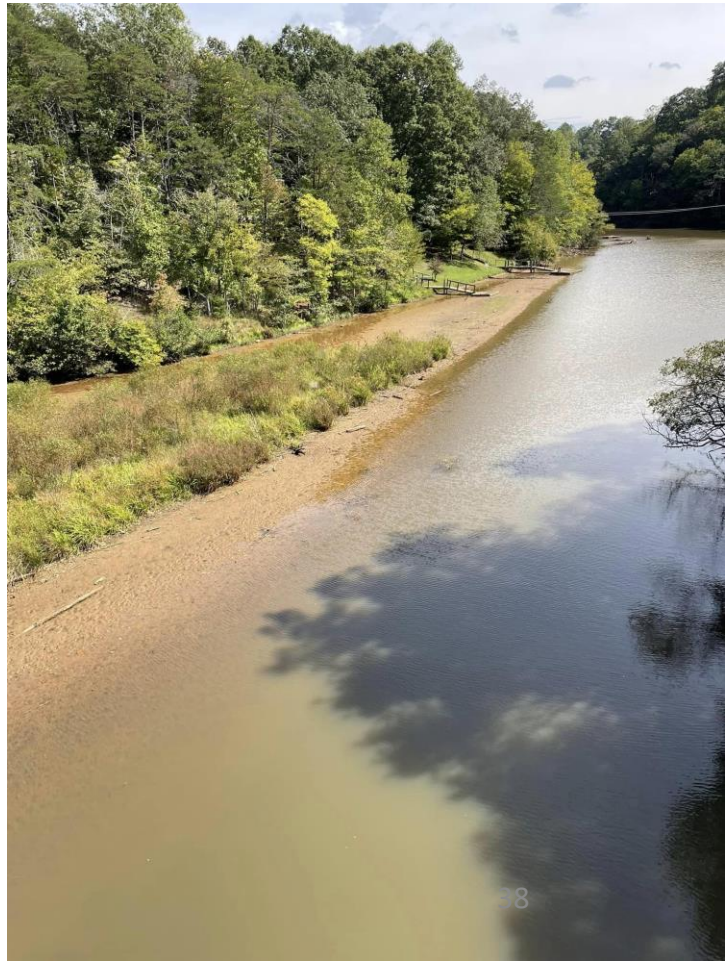
Kira Soriano R47 Harbor Ridge Striper Cove Area

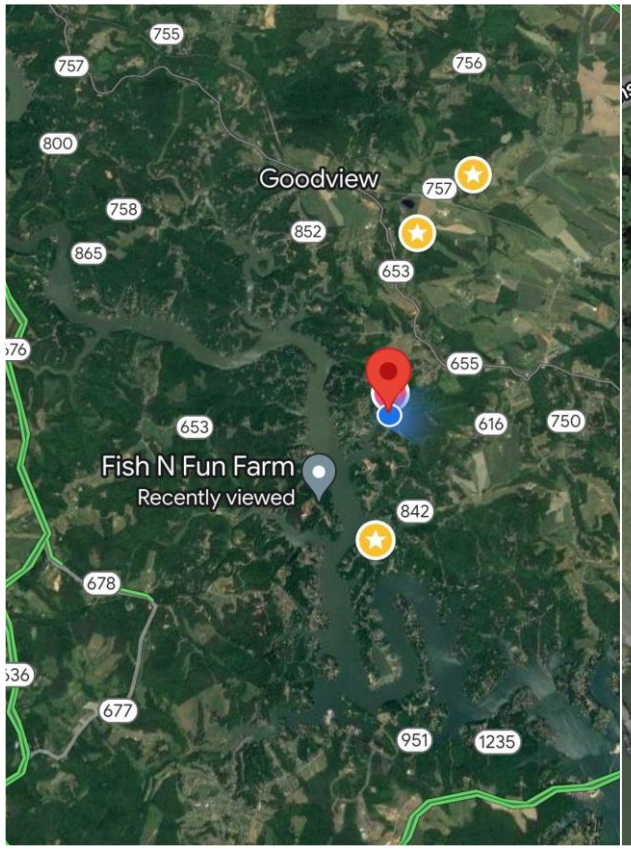
Used to be able to park a boat at our dock there, just on the right.... now we have a shoal that we can walk on that has split our cove and we can barely get the kayaks out now ...this pic, I'm standing on the shoal...

Lynville Creek looking from the Hardy Bridge

Jim Thorne
This is taken from the Hardy Rd. Bridge.

Mary Vogelsong
Lynville Creek is no longer navigable to the bridge on Hardy Road, unless in a small craft like a kayak.





Nathan Wagner
Near R43

These satellite photos are 4 or 5 years old, and the others are today. We only have 1 ft depth of water, or just mud.

Gerry WK
Mariners Landing in the Cove

Our property is waterfront on Craddock Creek, up from the Mariners Village boathouses. This portion of the cove is silting rapidly, due to excessive storm water runoff through large culverts from undeveloped land and the opposite shoreline with inadequate erosion control. The landowners and AEP do nothing to address this issue. A mud island has formed that becomes visible during low water conditions, and there is a set of boat slips that are not fully usable due to sediment in the slips and the channel. This area is not addressed in the Monitoring Report.

Gus Miller, B49

Unfortunately, no one made us aware of the issues in our channel. We actually have OK depth off our dock but if you go about 30 feet out it becomes 5 feet or less. Tree limbs get stuck in the sediment and cause issues for boaters.

We purchased in June 2023, so I really don't know much history, but I plan on trying to push AEP on removing large limbs along my shoreline and managing the channel at least as far as channel marker B49.

Tammy Rausch, Union Hall, Blackwater B41

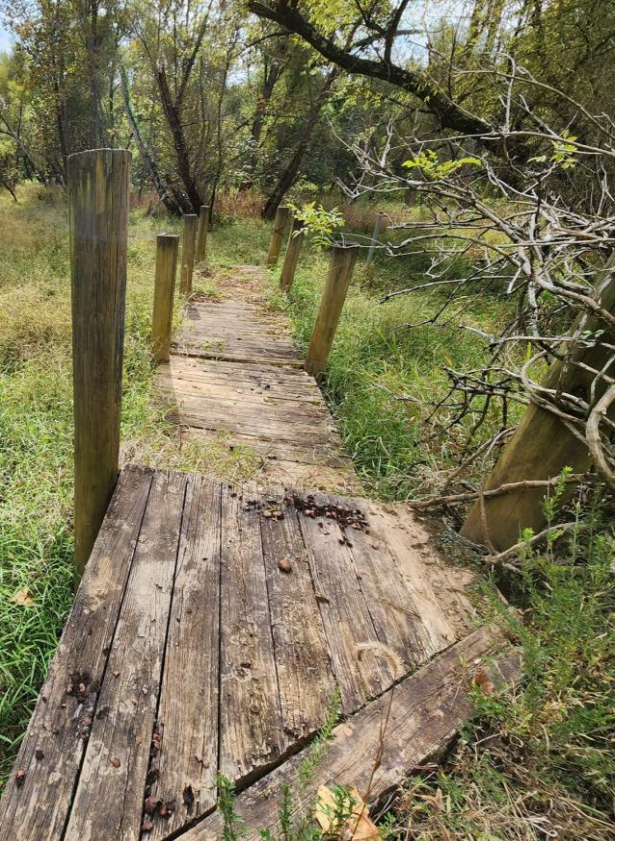
- We live on the Blackwater, and we are not yet affected. We have owned our property over 24 years and the depth of water at the end of our boathouse has gone from 16’ to about 12’. However deeper in our cove where we once skied has become islands and unnavigable even for a jet ski. There are several homes with unusable boathouses. We are in Union Hall off Long Horne and Major Holland Roads. By water we are left of B41.
- And if you continue past B41 it also was plenty deep and skiable all the way to Ponderosa Campground and the same has happened, it’s unnavigable with islands of soil.
- My husband and I see this as it should be dredged back to lake levels from when the lake was built. We believe as a man-made lake, these are not wetlands. They would never be natural wetlands if the lake was not built.

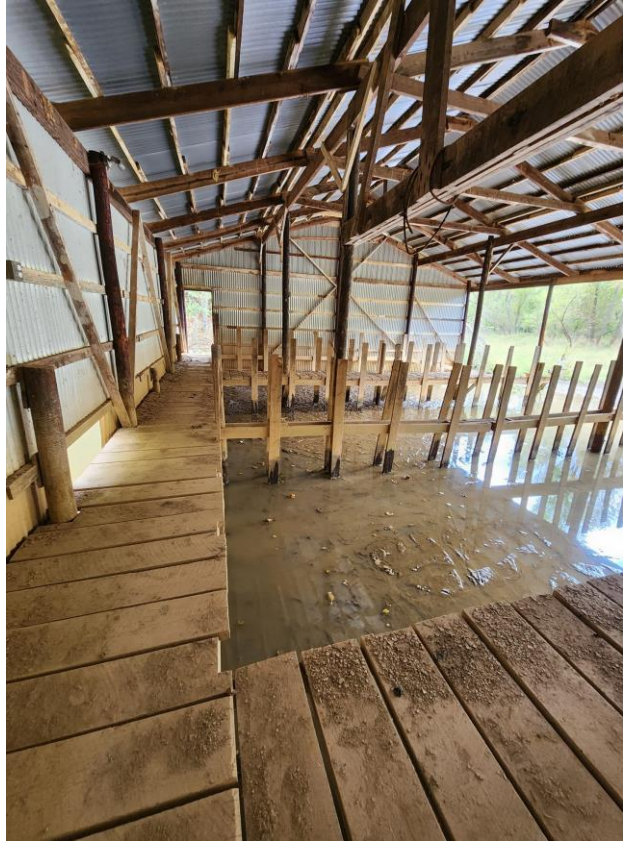
**In 2017, AEP responded to a request for help from Ponderosa Campground, stating it was not responsible for non project portions of the lake. They revised a channel marker and said they would help with dredging permits.

Susan Milisits, Blackwater

This is beyond channel marker B49 at Horseshoe Bend area of the Blackwater. There is an island of sediment with bushes and grass growing on it. The left-hand side is only inches deep and you can no longer navigate a boat in that area. The right side still has a path that boats can navigate through to get to the campground area. I've heard tales from neighbors that have resided here for years that you could ski through this area to the Blackwater Bridge.

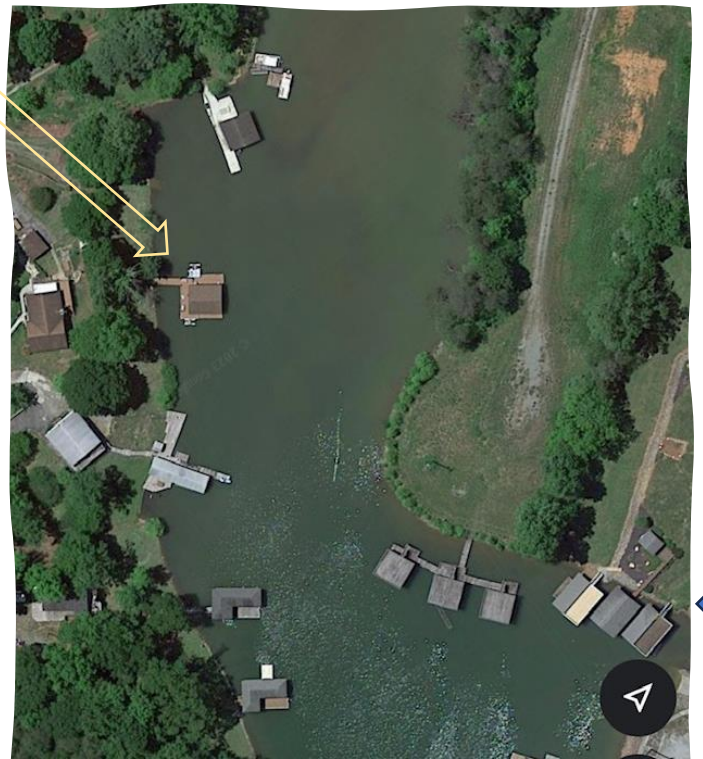
** in 2017, AEP responded to a request for help from Ponderosa Campground, stating AEP was not responsible for non project portions of the lake. They revised a channel marker and said they would help with dredging permits.






Suzy Bowman
Blackwater

Photos taken at Windsor Point Drive, the Horseshoe Bend portion of SML. Our property used to be lakefront and adjoins to the shared community area which includes a covered boat house with 4 slips, a cement boat ramp, a cement docking wall and a pier. Photos show the sad state of affairs....all silted in and unusable even for a kayak. We can't even access the horseshoe bend portion of the river at all. If this was dredged it would be amazing. We could possibly do a retaining wall with a community garden to retain the silt removed if disposing of it is an issue.



Allison Bruce, Becky's Creek past Bayside Marina. Google earth image was from 5/16/2017. Other photos are from this year. The report said only slight increase in sediment for Becky's Creek which is obviously not the case.

[For comparison, the arrow is of the same dock, 6 years apart]

Google Earth Image 5/16/2017

Other comments from group members

Sid Kirstein, Blackwater B49

When water level is low, we have numerous peninsulas of dry land and only a foot or so of water at an oldest dock....only good for kayaks.....a lot of silt has been deposited over the years.

Todd Funk, Roanoke R34

I have the same issue off R34. Can’t get my boat in because of the debris and sediment.

Section IV SO WHAT?
Consequences of Unresolved Sedimentation

- Poor water access and flowage for boats and navigation will continue and get worse downstream from affected areas
- Continued loss of the use of docks (that had to be approved by AEP to ensure their flowage) in silting areas
- Islands/land masses will continue to be used illegally by hunters, and trash and litter will continue to be a problem on them
- Increased sediment will increase the incidences of Harmful Algae Blooms
- Property values will decrease, with significant lost tax revenue for three+ counties
- Those who bought “legacy” homes in affected areas will have nothing to hand down to family
- Less lake access, and more Harmful Algae Blooms will decrease tourism and revenue
- Decreased tourism means less $ revenue and business investment, and a gem of SW Virginia will suffer drastically

What else does sediment do in the lake?

- Sediment can clog fish gills, reducing resistance to disease, lowering growth rates, and affecting fish egg and larvae development.
- Nutrients transported by sediment can activate blue-green algae that release toxins and can make swimmers sick.
- Sediment deposits in rivers can alter the flow of water and reduce water depth, which makes navigation and recreational use more difficult.

What can be done? Most SML lakefront properties are in coves! Transparency is key.

Monitoring is the first step, with results reported in the right way accurately-*transparency*

Determining the increased sediment in the areas affected accurately—*transparency*

Determine the estimated remaining life of the lake if no measures are taken--*transparency*

Two paths forward: ***Save the Lake or Surrender the Lake!***

- Determine how to address mitigating the identified stored sediment to prevent or reduce future sediment in a rotational maintenance around the lake in these areas. This will ensure SML continues to remains a top tourist growth area for residents and businesses, essentially for decades to come. A multipronged approach to sedimentation would be a major move for lakes across the world—using various resources who are impacted. This is not JUST an AEP issue. This is a community issue that we can work together with the various agencies, businesses, and all those who would be affected if we didn't SAVE THE LAKE.

  OR

- Acknowledge the remaining life of the lake as we know it if we continue to surrender these areas to sediment. Identify which areas will silt in and when. Prepare adequately and TRANSPARENTLY for those consequences as real estate values and revenues drop. Advise realtors of their duty to advise clients of the shortened life span. No longer allow docks to be built in areas that will have less than X numbers of years. Allow property owners of those areas to have reduced a reduced tax burden due to property values. Advise local governments of the revenue reduction for their planning purposes. Develop a way to prohibit hunting on the islands that arise near homes. Drill down on the HAB problem and strictly enforce no swimming as needed. In a transparent way, acknowledge the problem and the lifespan we should affect.

What will SML, "The Jewel of the Blue Ridge" look like in 2033?