I N T E R N A L M E M O R A N D U M

To: Phyllis Calloway, J.D.

From: Yanni Spanoudakis, PE

Date: March 17, 2025

Re: Country Walk HOA Conservation Area Outfall Inspection

An INSPECTION was performed on Friday, March 14, 2025, of Lucille Creek from Shipp Road to the Silver Comet trail and of the outfalls located on the west side of Country Walk S/D. The purpose of the inspection was to assess the condition of the point and/or channels that stormwater exit the Country Walk S/D to the west and enter on to the parcels owned by the COUNTRY WALK HOMEOWNERS ASSOCIATION and are a part of the conservation agreement associated with Lucille Creek Trail. Prior to the site visit a map figure was developed illustrating 9 different stormwater features to be inspected, see Figure 1. The summary of the conditions observed for each of the stormwater features is contained in the list below:

Lucille Creek – The banks and flow of the creek were inspected, and no blockages or noticeable eroded areas were observed.

1. Location of discharge from Country Walk stormwater pond, located at 4809 & 4811 Country Walk Estates Drive. Despite lack of rip rap stone observed at the downstream outlet pipe of the pond, minimal erosion appears to be occurring. There is a short defined downstream channel cut from the pond discharge that shortly dissipates into a mostly flat undefined area that

continues to flow west across the Cobb County Sewer Easement. I believe there to be no buffered state waters in this area. Eventually the stormwater enters Lucille Creek via two separate well-defined cuts in the creek banks. No current stormwater maintenance needs were observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pond OCS during future heavy rain events.

2. Location of buffered state water flowing from east to west exiting the Country Walk S/D. The banks of the channel are heavily eroded close to the intersection with Lucille Creek. The erosion does not currently pose an immediate threat to any of the surrounding properties. The property with the highest risk is the sewer structures and pipes owned by Cobb County that cross the channel. Stream bank stabilization in this area would be encouraged to stop downstream sediment pollution but it is not necessary.

3. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream cul-de-sac (Ramblewood Court). Discharge of pipe was observed to be 30% full of sediment. No rip rap was observed to be present. A large tree was observed to be located close to the pipe discharge and the tree appeared to be in good health. It was observed that downstream of the pipe discharge, a defined channel was present for approximately 10-ft at which point it dissipated into a mostly flat undefined area, though the route that the stormwater takes to reach Lucille Creek was apparent due to the displaced forest debris (leaves and pine straw). Eventually the stormwater enters Lucille Creek via a well-defined cut in the creek bank. No current stormwater maintenance needs were observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events. The large tree could be a potential future maintenance item.

4. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream cul-de-sac (Saddlerun Lane). No clog apparent in pipe. No rip rap was observed to be present. Pipe discharges approximately 40-ft from Lucille Creek. A well-defined channel was observed from the pipe discharge to Lucille Creek. No current stormwater maintenance needs were observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events.

5. Location of discharge from Country Walk stormwater pond located at 4861 Saddlerun Lane. A well-defined channel was observed from the pipe discharge to Lucille Creek. Insufficient rip rap was observed to be present, along with the presence of moderate sediment erosion in the channel. The northern corner of the channel collapsed at the intersection with Lucille Creek, with an island of earth and 4 trees lying in Lucille Creek, the trees span westward over the creek and above the water level of the creek at the time of inspection. The 4 trees appear to have collapsed due to lack of erosion control in the channel used to carry the pond discharge to Lucille Creek. A second, separate single tree north of the conglomerate of the previously stated 4 trees also has fallen across the creek. This singular tree also spanned westward over the creek and above the water level of the creek at the time of inspection. The tree could have been pulled down when the previously mentioned group of 4 trees fell, but the reason for falling is unclear. The current stormwater maintenance needs in this area are unclear, (see list of uncertainties below). Insufficient rip rap may allow for erosion downstream of the pond OCS during future heavy rain events. The trees over the creek may cause a blockage on Lucille Creek in the future.

6. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream cul-de-sac (Hillside Drive). Discharge of pipe was observed to be 25% full of sediment. No rip rap was observed to be present. It was observed that, downstream of pipe discharge, a defined channel was present for approximately 10-ft at which point it dissipated into a mostly flat undefined area. It is unclear where the stormwater enters Lucille Creek, as no well-defined cut in the creek bank was observed. No current stormwater maintenance needs were observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events.

7. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream cul-de-sac (Buckhorn Court). Discharge of pipe was observed to be 75% full of sediment. No rip rap was observed to be present. No defined channel was present. Discharge from pipe dissipated into a mostly flat undefined area. It is unclear where the stormwater enters Lucille Creek, as no well-defined cut in the creek bank was observed. Clean out of sediment from discharge pipe is the only stormwater maintenance need observed to be present in this

area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events.

8. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream road (Hillside Court). No rip rap was observed to be present. No defined channel was present. Discharge from pipe dissipated into a mostly flat undefined area. It is unclear where the stormwater enters Lucille Creek, as no well-defined cut in the creek bank was observed. No current stormwater maintenance needs were observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events.

9. Location of discharge of pipe routing un-detained stormwater from stormwater structure in upstream cul-de-sac (Hickory Lane). Discharge of pipe was observed to be 50% full of sediment. No rip rap was observed to be present. No defined channel was present. Discharge from pipe dissipated into a mostly flat undefined area. It is unclear where the stormwater enters Lucille Creek, as no well-defined cut in the creek bank was observed. Clean out of sediment from discharge pipe is the only stormwater maintenance need observed to be present in this area. Lack of rip rap may allow for erosion downstream of the pipe discharge during future heavy rain events.

The above list includes the observations made during the site visit. The need for maintenance and the responsibility of maintenance is dependent on the interpretation of numerous Georgia State codes and City of Powder Springs codes, ordinances, and resolutions. The compiled list below points out areas of uncertainty in required stormwater maintenance and the identified responsible parties:

- Eroded stream banks – Streambank erosion, such as that described above in area 2, can naturally occur but it can also be influenced by upstream development. The grounds for enforcement of the requirement to install stream bank stabilization on creek banks owned by others is uncertain. If it can be proven that erosion is factually a result of the upstream development it may make enforcement possible, but still very difficult and debatable.

- Trees in channel – A standing tree in a drainage channel, such as that described above in area 2, could potentially be a drainage issue if it fell but it could also live another 100-years, thus never creating a drainage issue. Thus, the requirements to remove said tree remain uncertain.

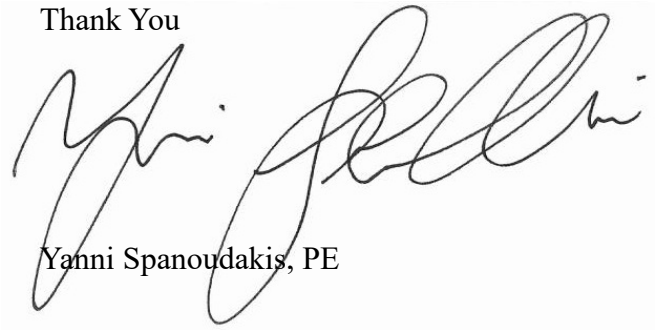
- Impedance of flow – Georgia code 51-9-7 is commonly interpreted to mean – downstream property owners must accept naturally occurring drainage from upstream neighbors. Some may say this can be deduced to mean that a naturally occurring blockage on one's property is one's responsibility to clear if it causes a backup on an upstream neighbor's property. Others may interpret this to only apply to artificial blockages. The removal of fallen trees in creeks are subject to this uncertainty.

- Drainage easement downstream of HOA ponds – It is believed a 20' drainage easement is implied to exist at the discharge of stormwater ponds but the extent of the easement and resulting maintenance requirements are uncertain. In a perfect scenario, the downstream conditions of a stormwater pond would at some point mimic the preexisting conditions and the limits of maintenance would end at said point. This is not always the case and sometimes the installation of stormwater ponds create new drainage channels due to their concentrating effects of ponds. Thus, there is uncertainty in the downstream limits of stormwater pond maintenance.

- City of Powder Springs Resolution 2022-020 – The common interpretation of this city resolution is that the City maintains ownership and maintenance of storm water pipes and structures inside the City owned right-of-way and extends ownership to a point of the first structure outside of the right-of-way and that all subsequential stormwater infrastructure is privately owned by the property owner or HOA associated with the property on which it resides. In my professional opinion this City resolution does not clearly define the above interpretation.

During the delineation of responsibilities of stormwater maintenance in the HOA owned Conservation agreement area please consider the above list of areas of uncertainty. I would be happy to discuss my opinions on the matters and help in defining the items to be included in the updated agreement.

Thank You

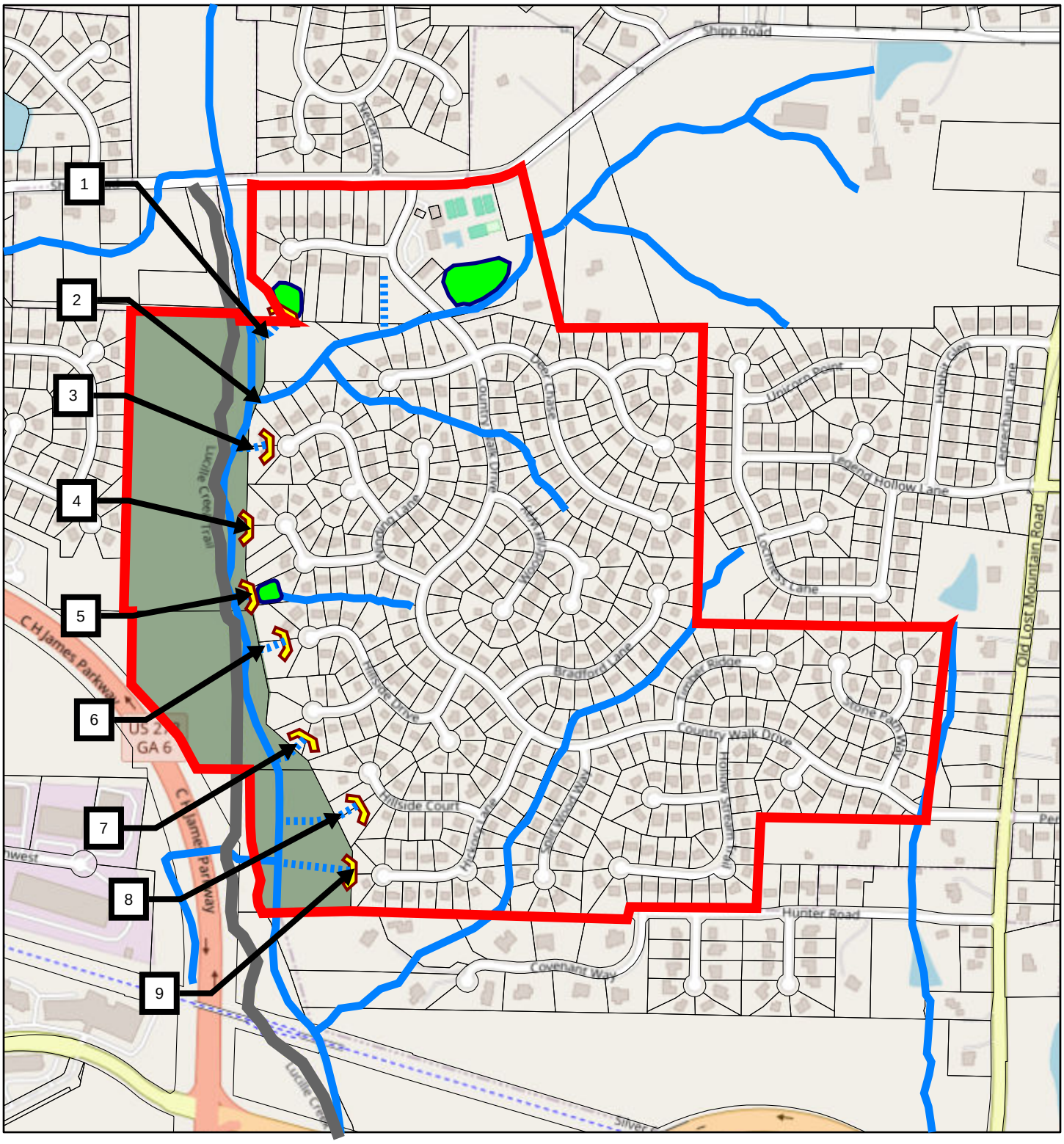


Yanni Spanoudakis, PE

Enclosed: COUNTRY WALK S/D STORMWATER MAP

Cc: Pam Conner, City of Powder Springs

COUNTRY WALK S/D STORMWATER MAP



3/14/2025

1:9,130

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Parcels

COUNTRY WALK S/D

STATE WATERS (25' STATE BUFFER)

DRAINAGE DITCH/CHANNEL (NO BUFFER) (HAS 20' DRAINAGE ESMT)

APPROX. CONSERVATION ESMT. AREA

SUBDIVISION POND

LUCILLE CREEK TRAIL

OUTFALL