

**Minutes  
of the  
Stormwater Management Committee (SWMC)  
January 3, 2013  
\*\*\*\*\*  
8:00 AM  
1600 Second Avenue North  
Metro Water Services Administration Building, 2<sup>nd</sup> Floor Conference Room**

**STORMWATER MANAGEMENT COMMITTEE**

**Committee Members Present:**

Ms. Elaine Bright – Vice Chairman  
Mr. Roy Dale, P.E. – Chairman  
Mr. Dodd Galbreath  
Mr. Kevin Gangaware, P.E.  
Mr. Slade Sevier, P.E.  
Mr. Monte Turner  
Mr. Lance Wagner, P.E.

**Committee Members Absent:**

None

**I. CALL TO ORDER**

The meeting was called to order at 8:07 a.m.

**II. APPROVAL OF DECEMBER 6, 2012 MEETING MINUTES**

Mr. Slade Sevier moved, and Ms. Elaine Bright seconded the motion to approve the December 6, 2012 meeting minutes. Ms. Bright, Mr. Roy Dale, Mr. Dodd Galbreath, and Mr. Sevier approved the motion.

**III. APPROVAL OF DECEMBER 6, 2012 DECISION LETTER**

Mr. Slade Sevier moved, and Ms. Elaine Bright seconded the motion to approve the December 6, 2012 decision letter. Ms. Bright, Mr. Roy Dale, Mr. Dodd Galbreath, and Mr. Sevier approved the motion.

*Mr. Kevin Gangaware, Mr. Monte Turner, and Mr. Lance Wagner arrived at the meeting.*

**IV. CORPS OF ENGINEERS' PRESENTATION**

Mr. Barry Moran, Nashville District Corps of Engineers, summarized the Nashville Flood Preparedness program that started after the May 2010 flood. The overview included the status of updated FEMA Flood Maps for Davidson County and a brief description of the modeling and warning tools used to better prepare for flood events. Key points outlined in his presentation were:

1. A team was formed with United States Geological Survey (USGS), National Weather Service (NWS), U.S. Army Corps of Engineers (USACE), Federal Emergency Management Agency (FEMA), and three Metro departments (Metro Water Services, Planning, and Office of Emergency Management).
2. The team identified needed improvements such as better communication and collaboration between the different agencies, understanding flooding on the Cumberland by mapping flood inundation, developing more accurate forecasts, gaging data needs, and updating flood insurance studies.
3. The program is divided into three phases. In Phase 1 (completed May 2011), the Corps performed detailed analyses for six major watersheds in Davidson County to define flooded areas during flood events and also feed into the Nashville Situational Awareness for Flooding Events (SAFE) tool and Watershed Advisory Guides (WAGs). The study area encompassed about 70% of the current flood insurance study (FIS) and about 50% of Davidson County.
4. Watershed Advisors interpret data and provide assessments to decision makers.
5. Many gages were lost during the 2010 flood. After data collection points were evaluated, some gages were grouped and new gages were added.
6. Watershed inundation mapping products were developed to evaluate appropriate action levels.
7. All products (Metro and USGS gages, NWS predictions, USACE inundation mapping, and action levels) feed into the SAFE tool that is used to prepare for floods.
8. The public can access the Nashville Emergency Response Viewing Engine (NERVE) tool to obtain information regarding road closures, evacuations, etc.
9. In Phase 2 (completed December 2012), the May 2010 event was incorporated into the flood frequency analyses, all new LiDAR mapping was flown for Davidson County and parts of the Harpeth River basin and incorporated into the FIS, all effective FIS and local studies were updated to detailed Zone AE in 6 watersheds with data furnished to FEMA to create new Flood Insurance Rate Maps (FIRMs), and the WAGs and Nashville SAFE tool were updated. Draft FIRMs will be completed by January 2014. Although not yet effective under FEMA, Metro can use the information at its discretion if determined to be more conservative than the effective FIS.
10. Phase 3 began this month and is similar to Phase 2 except that it involves updating the modeling products for the rest of Davidson County. Products are expected to be provided by January 2015.

Mr. Moran was asked if there are particular areas, reaches, tributaries, etc. that are critical/sensitive with respect to uncompensated fill in the floodplain, to which he stated that one of those reaches is Mill Creek main stem.

Mr. Roger Lindsey, Stormwater – Development Review Section, provided a brief overview of the Nashville SAFE tool. He will be tentatively scheduled to give a more comprehensive presentation at the April 4, 2013 meeting.

## **V. STORMWATER MANAGEMENT COMMITTEE AGENDA**

*Comments were solicited from the Planning and Codes Departments for the following Agenda items.*

1. **201200020**  
2708 & 2712 Wortham Avenue (Single-Family Residential)  
APNs #11702014300 and 11702014200  
Inspector: K. Hayes

**APPLICANT REQUEST** – Requests are to allow disturbance of the 30' stream buffer of an unnamed tributary to Richland Creek for the following:

1) Lot 1 (2708 Wortham) - construction of a portion of a single family residence and driveway/auto pad, footbridge, steps, grading, installation of erosion prevention and sediment control (EPSC) measures, and continuous mowing and maintenance of the buffer area.

2) Lot 2 (2712 Wortham) - construction of a bridge and driveway, grading, installation of EPSC measures, and continuous mowing and maintenance of the buffer area.

**APPELLANT:** Mr. Scott Chambers

**REPRESENTATIVE:** Mr. Larry McClanahan

**COMMENTS**

**SW (Single Family Residential):** Consider obtaining variance to reduce side and rear setbacks thereby reducing the area of buffer encroachment OR decrease proposed footprint of house. Mitigation plan needs to be modified: discrepancy in location of proposed driveway and home and areas of mitigation.

**CODES:** Defer to Stormwater Staff.

**PLANNING:** Defer to Stormwater Staff.

**GREENWAYS:** Greenways defers to Stormwater staff comments.

Mr. Larry McClanahan gave an overview of the variance requests.

Mr. Scott Chambers, current property owner, gave an overview of past purchases and sales of his properties and discussed an existing utility easement.

Ms. Nancy Kleinert, 2709 Wortham Avenue, submitted email comments that were read into the record by the Secretary. She expressed concern about the tree removal across the street with no notification of what was happening (possible development) and destruction of the creek. She also stated that the lower part of Springdale Drive and Wortham flooded during the May 2010 event.

Mr. John and Mrs. Lynn Chaffin, 2711 Wortham Avenue, submitted email comments that were read into the record by the Secretary. They also provided photographs that were shown to the Committee. They expressed opposition to the proposed variance, citing concern regarding degradation of the creek, the owner's intent to cut down all of the trees and brush, and continued clearing of any new growth over the last ten months.

Ms. Monette Rebecca, President - Richland Creek Watershed Association (RCWA), read comments (written copy attached) to the SWMC. RCWA was contacted by neighbors who expressed concerns about prior removal of riparian vegetation and its impact to aquatic and terrestrial habitat, and impact to downstream flooding by additional impervious cover. Neighbors requested that RCWA submit comments to the SWMC. In brief summary, RCWA comments were:

1. The riparian vegetation removal in 2012 had a destructive impact to streambank stabilization, water quality, and aquatic and wildlife habitat.
2. The Appellant presented no alternative, when the building of one home instead of two would be an alternative. Replanting of riparian vegetation should occur as soon as possible. Mud and grass is migrating to the stream channel, and streambank stabilization is threatened.
3. Removal of trees and understory, along with increased imperviousness, would increase downstream floodwaters. Retaining walls provide a false sense for streambank integrity and flood control.

Mr. Dave Hiller, 2312 Springdale Drive, stated that he already gets water in his basement a few times a year and expressed concern that the proposed structure (between the creek and his house) would create a barrier, preventing runoff from naturally flowing toward the creek and negatively impact his property by increasing runoff onto it. He also described flooding during the May 2010 flood.

There was discussion regarding the 2012 Notice of Violation (NOV) issued for removal of trees in the buffer, the stream determination (conducted on April 11, 2011), and the purchase and platting of the lots. The consensus of the Committee was to have the Appellant return with a full mitigation plan. There was additional discussion regarding the location of the house and autopad in the buffer and not much done to minimize the buffer impacts. It was suggested that the Appellant provide less encroachment into the buffer and possibly evaluate the use of a pervious driveway surface. The Appellant was advised to not rely on anything the Committee suggested, and informed that it is his responsibility to retain professionals to assist him.

The Committee stated that upon return, they wanted to see the Appellant: 1) provide at least two basic elevation cross-sections (with the outline of the proposed building) to see what the project will look like visually as it impacts the creek, 2) retain a landscape architect who has expertise in native plant ecology for a riparian stream to come up with a mitigation plan for the entire reach, 3) evaluate removing the building out of the buffer or minimizing the amount of building/impervious area in the buffer, 4) evaluate the use of a retaining wall to minimize impact in the buffer as much as possible and provide details of the area.

After discussion during the Executive Session of the Committee and review of the information presented, Mr. Roy Dale made a motion to defer the case for two meetings to allow the Appellant time to address the following items:

1. Provide at least 2 basic elevation cross-sections (with the outline of the proposed building) to see what the project will look like visually as it impacts the creek.
2. Retain a landscape architect who has expertise in native plant ecology for a riparian stream to come up with a mitigation plan for the entire reach.
3. Evaluate removing the building out of the buffer or minimizing the amount of building/impervious area in the buffer.
4. Evaluate the use of a retaining wall to minimize impact in the buffer as much as possible. Provide details of this area.

Mr. Dodd Galbreath seconded the vote. The motion was approved by Ms. Elaine Bright, Mr. Dale, Mr. Galbreath, Mr. Kevin Gangaware, Mr. Slade Sevier, Mr. Monte Turner, and Mr. Lance Wagner.

2. **201200021**  
Nashville Zoo - Main Entrance Phase 2  
3777 Nolensville Pike  
APN #13300000400  
Inspector: D. Johns

**APPLICANT REQUEST** – Requests are to allow:

- 1) Disturbance of the 50' (30' Zone 1 & 20' Zone 2) stream buffer of an unnamed tributary to Cathy Jo Creek (tributary to Sevenmile Creek) for construction of a portion of new roadway, associated grading, new boardwalk/sidewalk, retaining walls, and installation of erosion prevention & sediment control (EPSC) measures.
- 2) Placement of Stormwater BMPs in the buffer.
- 3) Less than 1,000 ft. spacing between roadway/driveway crossings.
- 4) Continuous mowing and maintenance of a portion of the buffer area.

**APPELLANT:** Civil Site Design Group

**REPRESENTATIVE:** Mr. Sean Decoster

**COMMENTS**

**NPDES:** No comment. Involved segment routes to Cathy Jo Branch which is listed for sediment, upstream impoundment and nutrients.

**CODES:** Defer to Stormwater Staff.

**PLANNING:** Defer to Stormwater Staff.

**GREENWAYS:** Greenways defers to Stormwater staff comments.

Mr. Kevin Gangaware recused himself from the case stating that his firm worked on the project.

Mr. Rick Schwartz, President and CEO of the Nashville Zoo, gave an overview of current and projected zoo attendance/membership, parking, and current traffic and congestion issues at the single zoo entrance.

Mr. Sean Decoster gave an overview of the variance requests.

Mr. Lance Wagner stated that there is some encroachment, but they have an educational component and overall it is an educational benefit, and Mr. Dodd Galbreath stated that it does have some mitigation.

Mr. Schwartz stated that they have looked at other entrance locations with the only other option being off Elysian Fields, but it is all back of houses with a lot of congestion, and on the other side is an industrial park. Topographically, further to the south it is impossible to develop.

Mr. Wagner asked what would be the proposed signage if the main entrance sign is removed, to which Mr. Schwartz replied that the sign will be moved back as part of a new sign package. Mr. Roy Dale asked if there are plans for a future parking expansion, to which Mr. Schwartz stated that there is a permit in place for expanded parking. He also stated that the bus route was expanded to travel into the zoo to drop off visitors. Ms. Elaine Bright asked if they had looked at doing some of the roads as alternating between morning and evening, to which Mr. Schwartz stated that they had but were concerned that by doing that they would have to affect the other creek by putting in three lanes instead of four. They would be on the other side of the creek affecting that creek. Since the zoo does not receive municipal operating funding, more nighttime events are held which cause conflicts with people leaving the zoo during the day and others coming into the zoo for these events. There will be conflicts with entering and closing of nighttime events.

After discussion during the Executive Session of the Committee and review of the information presented, Mr. Lance Wagner made a motion to approve the variance requests as presented, with the following standard Conditions #1-3. Mr. Monte Turner seconded the vote. The motion was approved by Ms. Elaine Bright, Mr. Roy Dale, Mr. Dodd Galbreath, Mr. Slade Sevier, Mr. Turner, and Mr. Wagner. The conditions of approval are:

1. The Appellant shall have the landscaper who installs the required mitigation plantings to certify to MWS Stormwater – NPDES Office in writing (referencing Variance #201200021) once plantings are installed per approved variance plans and again once plantings have been found to meet a two full growing season requirement. The owner shall maintain a minimum of 75 percent survivability of plantings through two full growing seasons.
2. This variance will expire on January 3, 2014. However, if a Grading Permit, Stormwater Single Family Permit, or Building Permit is issued within that period, the variance expiration date will run concurrent with that permit expiration date. The variance is valid only so long as the plan presented to the Stormwater Management Committee does not change.
3. The Appellant is reminded that no construction or disturbance should commence prior to obtaining any applicable Grading Permit or Stormwater Single Family Permit from Metro Water Services and any or all applicable Building Permits from Metro Codes.

The reasons for approval were that: 1) there is some encroachment, but they have an educational component and overall it is an educational benefit, and 2) it does have some mitigation.

3. **201200022**  
916 & 918 Fairwin Avenue (Single-Family Residential)  
APNs #07209030200 and 07209030300  
Inspector: K. Hayes

**APPLICANT REQUEST** – Requests are to allow disturbance of the 50' (30' Zone 1 & 20' Zone 2) stream buffer of an unnamed tributary to the Cumberland River for the following:

- 1) Parcel 302 (916 Fairwin) - construction of 2 single family units and portions of the driveway, installation of erosion prevention and sediment control (EPSC) measures, continuous mowing and maintenance of the buffer, and installation of utility service connections.
- 2) Parcel 303 (918 Fairwin) - construction of 1 single family residence and driveway, installation of EPSC measures, continuous mowing and maintenance of the buffer, and installation of utility service connections

**APPELLANT:** Lukens Engineering Consultants

**REPRESENTATIVE:** Mr. Jim Lukens

**COMMENTS**

**SW (Single Family Residential):** Property purchased prior to inquiry or pre-application meeting with Metro Stormwater to discuss. No effort to reduce amount of impervious surface area being added to property or to reduce the level of encroachment in buffer and easements.

**CODES:** Defer to Stormwater Staff.

**PLANNING:** Defer to Stormwater Staff.

**GREENWAYS:** Greenways defers to Stormwater staff comments.

Mr. Jim Lukens gave an overview of the variance requests.

There was discussion regarding 1) existing and proposed structures and parking areas, 2) the amount of impervious area, 3) the watershed size and location, 4) re-establishing a drainage system, 5) planting additional hardwoods along the streambank to increase tree canopy, 6) installing an infiltration trench along the perimeter of the driveway, 7) installing rain gardens and/or a cistern, and 8) limiting the imperviousness to two structures (one roof per parcel) or returning with a plan to mitigate the third structure.

Mr. Roy Dale asked if the project was a cottage-style development with a lot of green elements built in (such as green roofs, rain barrels, rain gardens, cistern, etc.). He did not see any of these elements on the plan, but it would be good to show them.

There was additional discussion about planting trees at 20' centers along the bank, adding rain barrels for each unit or a joint cistern for two units, including a rain garden per lot, and needing to address water quantity, in terms of storage, due to the higher density.

Mr. Roger Lindsey stated that his department is currently evaluating how to incorporate water quality/quantity on single-family residential lots. One concern is how to address potential maintenance-related issues. For the current case, if infiltration-related features are proposed, they may undermine the structural stability of the rock walls that confine the stream.

After discussion during the Executive Session of the Committee and review of the information presented, Mr. Roy Dale made a motion to defer the case to allow the Appellant to return with a more detailed mitigation plan. Ms. Elaine Bright seconded the vote. The motion was approved by Ms. Bright, Mr. Dale, Mr. Dodd Galbreath, Mr. Kevin Gangaware, Mr. Slade Sevier, Mr. Monte Turner, and Mr. Lance Wagner.

## **VI. ITEMS OF BUSINESS**

There were no new items of business.

**VII. ADJOURNMENT**

The meeting was adjourned at 11:32 a.m.

Metropolitan Stormwater Management Committee

Approved:

By: \_\_\_\_\_  
Secretary

Date: \_\_\_\_\_

RICHLAND CREEK WATERSHED ALLIANCE

January 3, 2013

Metropolitan Stormwater Management Committee (SWMC)  
Stormwater Division  
800 2<sup>nd</sup> Avenue South  
Nashville, TN 37210

Re: Case # 201200020 - (Lot 1- 2708 & Lot 1- 2712 Wortham)

The Richland Creek Watershed Alliance (RCWA) was contacted by neighbors to the property named in this SWMC case, because they were concerned about the impact the proposed development would have on the headwater stream flowing through the property. Their concerns included the removal of riparian vegetation (trees and understory) that was completed on the property prior to this SWMC hearing, its impact to aquatic and terrestrial habitats and flooding impact downstream by additional impervious cover upstream. RCWA was asked to submit comments to the SWMC for this case.

A RCWA board member and myself visited the property yesterday to get the lay of the land and a better understanding of what impact two more homes on these parcels may have on the creek. The headwater stream on the parcels flows to the Bosley Springs/ Kingfisher Branch, a major tributary to Richland Creek. The corner property at Oxford and Wortham appears to have a groundwater spring that feeds this stream year-round.

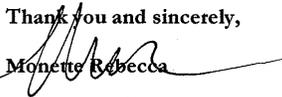
The riparian vegetation removed earlier in 2012 here, which included very mature trees and quite a bit of understory plants, has had a destructive impact to stabilization of the stream bank, water quality and habitat. The surrounding soil, land of the stream is seeping water now; stabilization of the stream bank is visibly threatened, and the aquatic habitat has been degraded and terrestrial habitat eliminated. It will take many decades for new plantings to do the same work as before.

Headwater streams are very important for the health and sustainability of all waterways, and the Richland Creek stream system, and RCWA has seen all too often degradation, alteration and elimination of these high quality streams that provide clean water into the system. Headwater streams provide important and distinct habitat for aquatic and terrestrial wildlife and contribute important nutrients, organisms and clean water downstream, in this case Richland Creek.

The applicant has not submitted an alternative to his proposal and says there is not one, but RCWA proposes there is an alternative. The building of only one home, instead of two on these parcels would be an alternative. It appears to RCWA the proposed building areas are not large enough to accommodate two more homes without encroaching on the stream, and preserving the important riparian area that is important for a healthy waterway. Replanting of riparian vegetation should occur as ~~soon~~<sup>soon</sup> as possible because it is apparent that mud, and grass is migrating to stream channel and stabilization of stream bank is threatened.

Removal of the mature trees and understory at this area, and the added impervious cover proposed, would also impart more flood waters downstream. It will take many decades for new plantings to do the work that the previous riparian vegetation accomplished. Building retaining walls on stream banks provides a false sense for the stream bank's integrity and flood control. All too often RCWA finds these walls collapsed into the stream, reducing flood storage capacity and stabilization of the stream bank. Retaining walls also prevent migration of vital organisms to intermingle between land and water, which play an important role for a thriving aquatic habitat.

Thank you and sincerely,

  
Monette Rebecca

**Board of Directors**

Monette Rebecca – President  
Joel Covington – Treasurer  
Catherine Hayden – Secretary  
Stacy Vereen  
Pat Williams  
Steve Curnutte

*The Richland Creek Watershed Alliance is a recognized  
501(c)(3) tax-exempt organization, public charity.*

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