

## City Manager's Weekly Report

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Issue 2020-43

November 13, 2020

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### INFORMATION:

#### Regular Council Meeting Tuesday, November 17; Work Session at 11:30

Council will meet in regular work session at **11:30 A.M. on Tuesday**; Council meetings continue to be conducted via **remote electronic format**. Please note the agenda for the work session is included with the regular meeting agenda and may be accessed via the BoardDocs electronic agenda system:

<https://go.boarddocs.com/nc/raleigh/Board.nsf>

The **regular** Council meeting begins at **1:00 P.M.** Please note that Council will convene in closed session immediately following the afternoon meeting.

**Reminder:** If there is an item you would like to pull from the consent agenda for discussion, please e-mail [mayorstaff@raleighnc.gov](mailto:mayorstaff@raleighnc.gov) by 11 A.M. the day of the meeting.

**You will be receiving information on joining the WebEx Events session; staff will be available to assist with log ins and joining the virtual City Council meeting.**

**Additional Mass Gatherings at Halifax Mall**

*Staff Resource: Derrick Remer, Ofc. of Emerg. Mgt. & Spcl. Events, 996-2200, [derrick.remer@raleighnc.gov](mailto:derrick.remer@raleighnc.gov)*

An organization by the name of Southern Vision Alliance, which works for social, racial, and environmental justice along with gender equity, LGBTQ rights, and education justice in the US South, has obtained permits from the Raleigh Police Department and the State of North Carolina to hold a “Team Democracy: The People Will Rise” rally and march in downtown Raleigh on Saturday, November 14.

The rally will begin at Halifax Mall at Noon; the march portion will start at 1:00 P.M. when attendees will depart from Halifax Mall, heading east on Lane Street to circle the Governor’s Mansion and pass by the Legislative Building before returning to Halifax Mall. The event will conclude at Halifax Mall at 4:30 P.M.

Raleigh Police have contingency plans ready to slightly alter the route should counter-protestors gather.

The permit for the march allows for the use of City sidewalks. If at any time the crowd size grows too large to be able to safely accommodate participants on sidewalks, Raleigh Police have the discretion to close roads to traffic.

Expected attendance at the time of permit issuance, as provided by the applicant, was 1,000 to 2,000 people.

*(No attachment)*

**Wake County CARES Act Relief Funding**

*Staff Resource: Allison Bradsher, Finance, 996-4970, [allison.bradsher@raleighnc.gov](mailto:allison.bradsher@raleighnc.gov)*

As Council may recall the Coronavirus Aid, Relief, and Economic Security (CARES) Act was passed by Congress with overwhelming, bipartisan support and signed into law in March. Wake County received direct funding from the US Treasury in support of COVID-19 response on April 24 totaling \$194M as an allocation from the CARES Act. As part of the provisions of the CARES Act, local governments who receive direct funding may distribute funds to local governments within their jurisdiction. Wake County has previously allocated funding to Raleigh related to the City’s COVID-19 response, including (but not limited to): public health; public safety; EOC operations incurred to maintain operations while being compliant with social distancing policies, teleworking, and other restrictions.

At the Wake County Board meeting on Monday, November 16, County staff will recommend an additional funding for local jurisdictions totaling up to \$17M to cover eligible public safety payroll costs incurred in the current fiscal year. Under federal CARES guidance, all payroll costs for public safety employees are considered “substantially dedicated” to mitigating or responding to the COVID-19 public health emergency and are considered eligible expenses. City staff will advise Council of the decision and the potential allocation by Wake County during Tuesday’s City Council meeting.

*(No Attachment)*

**2020 Census Efforts Conclude**

Staff Resource: Sara Ellis, Planning and Development, 996-2234, [sara.ellis@raleighnc.gov](mailto:sara.ellis@raleighnc.gov)



The 2020 Census has reached the end of its counting period. Overall, Raleigh had a self-reporting rate of 68.9%. Some census tracts had low levels of self-reporting. State- and county-level data indicate that ensuing door-to-door counting, known as Non-Response Follow-Up, has reached a significant majority of the non-responding households. The completed count will be reported to the President in December 2020 and to the states in April 2021. Included with the *Weekly Report* materials is a staff memorandum which provides a summary of the Census counting process and how City staff contributed to local counting efforts.

(Attachment)

**Recreation Management Software System Replacement - Project Update**

Staff Resource: Scott Payne, Raleigh Parks, 996-4825, [scott.payne@raleighnc.gov](mailto:scott.payne@raleighnc.gov)

Originally implemented in the 1990's, the *Class* software from Active Network serves as the current Recreation Management System (RMS) used by staff. The *Class* system software is used for all aspects of department service delivery including but not limited to: Activity Registration, Facility Reservations, Membership Management, League Scheduling and Point of Sale.

In late 2017 the provider, Active Network, notified the City that the company was discontinuing production and support of the *Class* system. Staff assessed various software providers and identified a solution from Vermont Systems, Inc. (VSI) as the next RMS. The solution provided by VSI includes staff and public-facing interfaces, integrated business intelligence, hosting services and much of the hardware required for business operations. Included with the *Weekly Report* materials is a staff memorandum which provides additional information.

(Attachment)

**PLANWake and Southeast Special Area Study**

Staff Resource: Donald Belk, Planning and Development, 996-4641, [donald.belk@raleighnc.gov](mailto:donald.belk@raleighnc.gov)

At the October 13 Work Session, staff provided an overview of the Wake County PLANWake process and the City's Southeast Special Area Study. Wake County staff will be presenting the PLANWake draft recommendations to the Wake County Board of Commissioners in January 2021. One major plan

recommendation will be an updated Growth Framework Map which incorporates future growth envisioned by municipalities in the county.

In light of the PLANWake timeline, staff is requesting that Wake County Planning make several changes to the draft Growth Framework Map designations based on the Raleigh current short-range and long-range Urban Service Areas. These designations indicate interjurisdictional agreement about where Raleigh is expected to eventually annex land and provide a full spectrum of city services (please see Map LU-4, attached). Staff is recommending that areas located in Raleigh's short-range USA be designated as *Community*, and areas in Raleigh's long-range USA (within the allowable three-mile ETJ extension area) be designated as *Community Reserve*. These changes will accommodate the options presented to Council on October 13 for extending the Raleigh extraterritorial jurisdiction (ETJ ) and provide a long-term planning framework to address community goals as identified by the Southeast Special Study Area.

Included with the *Weekly Report* materials are depictions of the draft PLANWake recommendations; staff plans to provide additional information about PLANWake, the Southeast Special Area Study, and refined scenarios for ETJ extension during a future Council work session.

(Attachment)

### Utility Payments Update

Staff Contact: Eileen Navarrete, Raleigh Water, 996-3480, [eileen.navarrete@raleighnc.gov](mailto:eileen.navarrete@raleighnc.gov)

As previously reviewed for Council in *Weekly Report* Issues 2020-36 (September 25), 2020-30 (August 14), and 2020-27 (July 24), the Raleigh Water department ceased credit and collections of utility accounts in early March of this year due to COVID-19, ahead of the Governor issuing Executive Order 124 which temporarily prohibited utilities from terminating service. That prohibition ended in July.

Many water and wastewater utilities throughout North Carolina have already resumed credit and collections. Raleigh Water plans to restart credit and collections on February 1, 2021. In the interim, staff is making a significant push to provide information to the customers regarding resources and opportunities for payment assistance.

As of November 13 there were 12,198 single family residential accounts (SFR) and 1,100 non-residential accounts with outstanding balances greater than \$125, the traditional delinquency disconnection threshold. That represents 7% of SFR and 5% of non-residential accounts respectively. Approximately 2,200 accounts have entered into payment plan arrangements.

As reported by Wake County staff on November 13, 755 customers of Raleigh Water have received WakeHELPS grants totaling \$202,264. This is from 3,889 applications processed to date, with an additional 5,401 applications in process countywide.

Raleigh Water is assembling a special customer assistance outreach team with employees on loan from the Raleigh Convention and Performing Arts Center to engage in proactive outreach to customers who may need assistance. The goal of this outreach is to connect customers in need with programs that can provide assistance with utility bills and to facilitate entrance into payment plans to allow continued service post-delinquency moratorium.

Staff is also collaborating with other City departments, as well as several outside organizations to push information out to the community. Staff will continue to provide updates to Council through the *Weekly*

*Report*, when appropriate, and is scheduled to present to the Council about this initiative at a future City Council meeting.

*(No attachment)*

### **Parks Halloween Events Recap**

*Staff Resource: Oscar Carmona, Raleigh Parks, 996-3285, [oscar.carmona@raleighnc.gov](mailto:oscar.carmona@raleighnc.gov)*

As reviewed with Council in *Weekly Report Issue 2020-39* (October 16), over the Halloween weekend and in response to a request from the Council multiple Parks, Recreation and Cultural Resource sites hosted a variety of COVID-safe and family-friendly events. At Dorothea Dix Park, over 125 visitors (vehicles) from across the City attended a drive-in movie. The movie was a well-attended, diverse, fun event that welcomed back friends and families to Dix Park for this unique movie viewing experience.

In addition to the movie event, seven community center sites around the City hosted “trunk or treat” events where approximately 700 children and their families had the opportunity to show off costumes and receive treats in a safe environment. Through a partnership with WakeMed, attendees at all events received free masks. Staff made a concerted effort to reach out to a wide variety of communities to encourage attendance and participation in planning efforts. Staff received positive feedback from the community on these events and the end result was many smiling children and happy parents.

*(No attachment)*

## **Council Member Follow Up Items**

### **Follow Up from the October 6 City Council Meeting**

#### **Barwell Road Improvements Project (Mayor Pro Tem Branch)**

*Staff Resource: Kenneth Ritchie, Engineering Services, 996-4112, [kenneth.ritchie@raleighnc.gov](mailto:kenneth.ritchie@raleighnc.gov)*

During the October 6 City Council meeting, Engineering Services staff provided an update on the Barwell Road Improvements project. This project establishes a two-lane, divided avenue street section with a two-way left-turn center lane, multi-use path on the west side and 6’ sidewalk on the east side from north of Advantis Drive to Berkeley Lake Drive. This project also proposes a realignment of Pearl Road, shifting it west and establishing a four-leg intersection at the intersection of Barwell Road and Rock Quarry Road. During that update Council requested a follow-up on the timing of improvements at the Barwell Road and Rock Quarry Road intersection, desiring to try to limit the construction impact on the property owners at this intersection. Below is a map showing the current plan for improvements associated with the Barwell Road project as well as adjacent private development projects:





The Barwell Road project does propose to widen portions of Rock Quarry Road east of Barwell Road on both the north and south sides, joining with improvements either currently under construction (Quarry Trace Apartments development, north side) or planned within the next 18 months (Evergreen – Aspen Spring development, south side). No additional widening of Rock Quarry Road is planned for east of Rock Quarry Road at this time as traffic analysis completed during the design of the Barwell Road Improvement project did not show a need for any additional widening based upon both current and projected traffic volumes as a result of this project.

Also mentioned during that update was feedback from the Bicycle and Pedestrian Advisory Committee (BPAC) on two items:

- Relocation of proposed street trees to the grass strip between the back of curb and sidewalk; and
- Widening the proposed 6' sidewalk on the east side of Barwell Road to 8'.

Staff has assessed both areas and does not recommend any changes to the proposed design. Given the current stage of the project design, adjustment of either the street tree location or sidewalk width would require project re-design of private utilities given conflicts with the relocated street trees and widened sidewalk as well as redesign of the storm drainage system to account for increased impervious and increased runoff. Additional easements would also be needed to accommodate the relocated private utilities. These changes would result in increased project cost and delay the project schedule by approximately six months.

*(No attachment)*

## Follow Up from the November 2 City Council Meeting

### Public Hearing - Rezoning Case Z-24-20, Buffaloe Road (Mayor Baldwin; Council Member Cox)

Staff Resource: Wayne Miles, Engineering Services, 996-3964, [wayne.miles@raleighnc.gov](mailto:wayne.miles@raleighnc.gov)

Following the public hearing and based on comments from the hearing, Council requested a staff report on stormwater issues associated with this rezoning case (Z-24-20, 6125 Buffaloe Road) and impacts on the downstream property at 6400 Buffaloe Road, which is experiencing stormwater drainage issues. Council also requested that the report address any mitigation measures that might be available to address the stormwater issues experienced at 6400 Buffaloe Road.

The flooding experienced by the property at 6400 Buffaloe Road is impacting the yard and a storage shed. The cause of the flooding becoming more severe is believed to be the construction of the upstream Stone Ridge subdivision, which was permitted prior to the City of Raleigh having post-construction stormwater detention requirements.

The property at 6125 Buffaloe Road is proposed to be rezoned from R-4 to R-10-CU. This property is subject to post-construction stormwater control requirements for up to the 100-year storm event because of documented downstream structural flooding. The documented downstream structural flooding is located at 6132 River Landings Drive, which is downstream of 6400 Buffaloe Road. We believe that this increased stormwater control requirement will mitigate the stormwater impacts of development at 6125 Buffaloe Road on both reports of downstream flooding.

The yard flooding at 6400 Buffaloe Road may be corrected by improving the capacity and the grading of the stormwater ditch through the yard. Because this property is not located in the City limits, it is not eligible for assistance under the Drainage Assistance policy. Further, if this property was located within the Raleigh jurisdiction flooding at this location would not score as highly as many other more severe issues, thus it would be unlikely to be funded as a project under the Stormwater Program prioritization model.

Included with the *Weekly Report* materials is a memorandum with additional details of this situation, including maps of the locations and photos of the reported flooding.

*(Attachment)*



**Raleigh**

## **MEMO**

TO: Ruffin L. Hall, City Manager

THRU: Ken Bowers, Deputy Director

FROM: Christopher Golden, Planning Supervisor  
John Anagnost, Senior Planner

DEPARTMENT: Planning and Development

DATE: November 13, 2020

SUBJECT: 2020 Census Counting Ends

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The 2020 Census has reached the end of its counting period. As a decennial Census, the 2020 Census has the intent of counting every resident in the United States. The work of counting residents began on April 1, 2020 with the self-reporting program. Self-reporting is the process by which residents provide information about their households directly to the Census Bureau. The 2020 Census is the first census where self-reporting was conducted entirely online and by telephone instead of paper forms. Beginning in September, the Census Bureau initiated Non-Response Follow-Up (NRFU). During the NRFU period, self-reporting continues but census enumerators also attempt to contact residents who have not responded by making home visits. Self-reporting and NRFU both came to a close on October 15, 2020.

Due to the COVID-19 pandemic, the Census Bureau earlier this year requested permission from the U.S. Congress to move the deadline for reporting the Census results to the President. The requested extension would have moved the reporting deadline from December 31, 2020 to April 30, 2021. The Census Bureau anticipated the extension would be approved and had promoted October 31, 2020 as the new deadline for households to respond instead of the original response deadline of July 31, 2020. In August, the Census Bureau retracted its request for the extension. The census counting and reporting deadlines went through a series of political and legal disputes involving the US Congress and the Supreme Court, the result of which was to end all Census counting activities on October 15, 2020.

Raleigh's work on the 2020 Census began well before the initial counting activities. Prior to each decennial census, local jurisdictions are asked to confirm the Census Bureau's set of residential addresses that will be used for enumeration efforts. This process is called Local Update of Census Addresses (LUCA). City staff from Planning and Development and Information Technology began reviewing the LUCA address database in 2018. A consultant was hired to assist with LUCA because it is not a regular part of these departments' work plans. The City completed its LUCA review in a timely manner.

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North Carolina 27602-0590  
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Staff from multiple departments took part in promoting the 2020 Census throughout Raleigh and with a focus on areas where the census is believed to have undercounted the population in the past. Focus areas for census promotion were identified according to census tract, which is a local division of geography which typically corresponds to about 3,000-4,000 residents. Census tracts with historical undercounts tend to have higher proportions of households that rent, people with low English proficiency, low educational attainment, and low incomes.

Due to historical discrimination and inequities, these factors also tend to correspond with a higher proportion of racial and ethnic minorities. While a complete census count is most directly important for use in determining representation in the US Congress, accurate census results are also integral to the allocation of federal and state funds for social assistance programs which include housing, healthcare, and education. This combination of factors means that the tracts which are at risk of being undercounted are also the tracts with some of the greatest need for public resources.

Planning and Development staff led the City's census promotion effort and were assisted by staff from Parks, Recreation and Cultural Resources; Housing and Neighborhoods; Raleigh Water; Special Events; and the City Manager's Office. Staff also worked closely with the Complete Count Committee (CCC) organized by Wake County. The CCC is an ad hoc committee with representation from local governments, other government agencies, and non-profit and civic organizations. Members of the committee collaborate on outreach strategies and production of promotional materials like signs, flyers, social media content, and email campaigns.

City staff's direct efforts at promoting the 2020 Census occurred from March to October of 2020. Although the pandemic prohibited any in-person events, staff managed a campaign of media promotion through the City's and the Planning and Development department's social media channels. Customized and targeted email messages were distributed to civic and non-profit leaders, neighborhood associations, multi-family property managers, local businesses, and directly to residents.

Wake County printed yard signs which City staff provided to PRCR for posting at park locations in the target census tracts. Planning and Development staff also posted yard signs, with permission, at multi-family developments. Additionally, the Sir Walter Raleigh statue at the convention center also hosted a census yard sign for several weeks. The yard signs included Spanish translation of the census message. Raleigh Water included information about the census in its utility billing statements. Planning and Development also distributed T-shirts which were prominently worn by City Council members during a public meeting.

The results of the 2020 Census will be reported to the President by December 31, 2020. Census results are then distributed to the states on April 1, 2021 for use in state and local redistricting. Raleigh may make use of this information for redistricting in advance of next year's City Council elections. Meta-data are available about the extent of the 2020 Census count in Raleigh. At the end of counting, Raleigh had a self-response rate of 68.9%. This rate is down slightly from the 2010 result of 70.5%. For comparison purposes, the self-reporting rates for Wake County and North Carolina were 73.3% and 63.4% respectively.

Additionally, the NRFU completion rate for Raleigh's Area Census Office; which covers Franklin, Granville, Johnston, Person, Vance, and Wake counties; was 99.9%. North Carolina has reported an

overall “Total Response Rate” of 99.9%. This rate indicates the percentage of households that were counted by self-reporting or NRFU. While these numbers are encouraging, it should be noted that several census tracts in Raleigh had self-reporting rates that were below or just above 50%. These tracts were generally located south and east of downtown Raleigh, along Capital Boulevard, and near NC State University.

Planning and Development staff are documenting the 2020 Census efforts so they may serve as a resource for the 2030 Census. Additional demographic data is collected in intervening years by the Census Bureau’s American Community Survey (ACS). Along with decennial census data, staff will continue to regularly compile ACS data for City use, specifically through the annual Data Book and Community Profile publications.



Raleigh

## MEMO

TO: Ruffin L. Hall, City Manager

FROM: Scott Payne, Assistant Director, Parks, Recreation and Cultural Resources

CC: Oscar Carmona, Director, Parks, Recreation and Cultural Resources  
Beth Stagner, Interim CIO, Information Technology  
Allison Bradsher, CFO, Finance

DEPARTMENT: Parks, Recreation and Cultural Resources

DATE: November 13, 2020

SUBJECT: Recreation Management System Project Update

Originally implemented in the 1990's, Class from Active Network serves as the current Recreation Management System (RMS) used by the City of Raleigh Parks, Recreation and Cultural Resources Department (PRCR). Class is used for all aspects of the Department's service delivery including, but not limited to: Activity Registration, Facility Reservations, Membership Management, League Scheduling and Point of Sale. In late 2017, Active Network notified the City they were discontinuing Class. PRCR, in partnership with representatives from the City's Information Technology (IT) and Finance Departments, assessed various software providers and identified the solution from [Vermont Systems, Inc. \(VSI\)](#) as the next RMS. The solution provided by VSI includes their staff and public facing interfaces, integrated business intelligence, hosting services and much of the hardware required for business operations. They have a large presence in local governments across the country with nearly 1,000 customers. A few of their notable municipal customers are Austin, Texas, Washington, DC, and the City of Los Angeles, California.

This project and implementation is funded through a combination of the City's Tech Fund CIP and PRCR operating budgets. The contract with Vermont Systems, Inc. totals \$1,438,149 for implementation, hardware and annual software maintenance. These expenses include other hardware costs related to cash handling, payment card processing and other hardware not sold through VSI.

Kickoff for the RMS implementation project with VSI occurred in January of 2020. PRCR project team members include representatives from across the organization. These team members are joined by partners in IT and Finance to implement the new system.

At the project kickoff, none of the team could have anticipated the challenges arising with the COVID-19 pandemic. The original plans included all team

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members from PRCR co-working from a common meeting space for the duration of the project; however, the current implementation has been completed virtually.

Over the past nine months, this multi-departmental team has focused on the RMS implementation by completing project team training, developing new procedures, configuring the system and populating the new system with content specific to our organization. The targeted go-live timeframe for the new system is anticipated for Spring 2021. Significant work remains in preparation of the system's go-live.

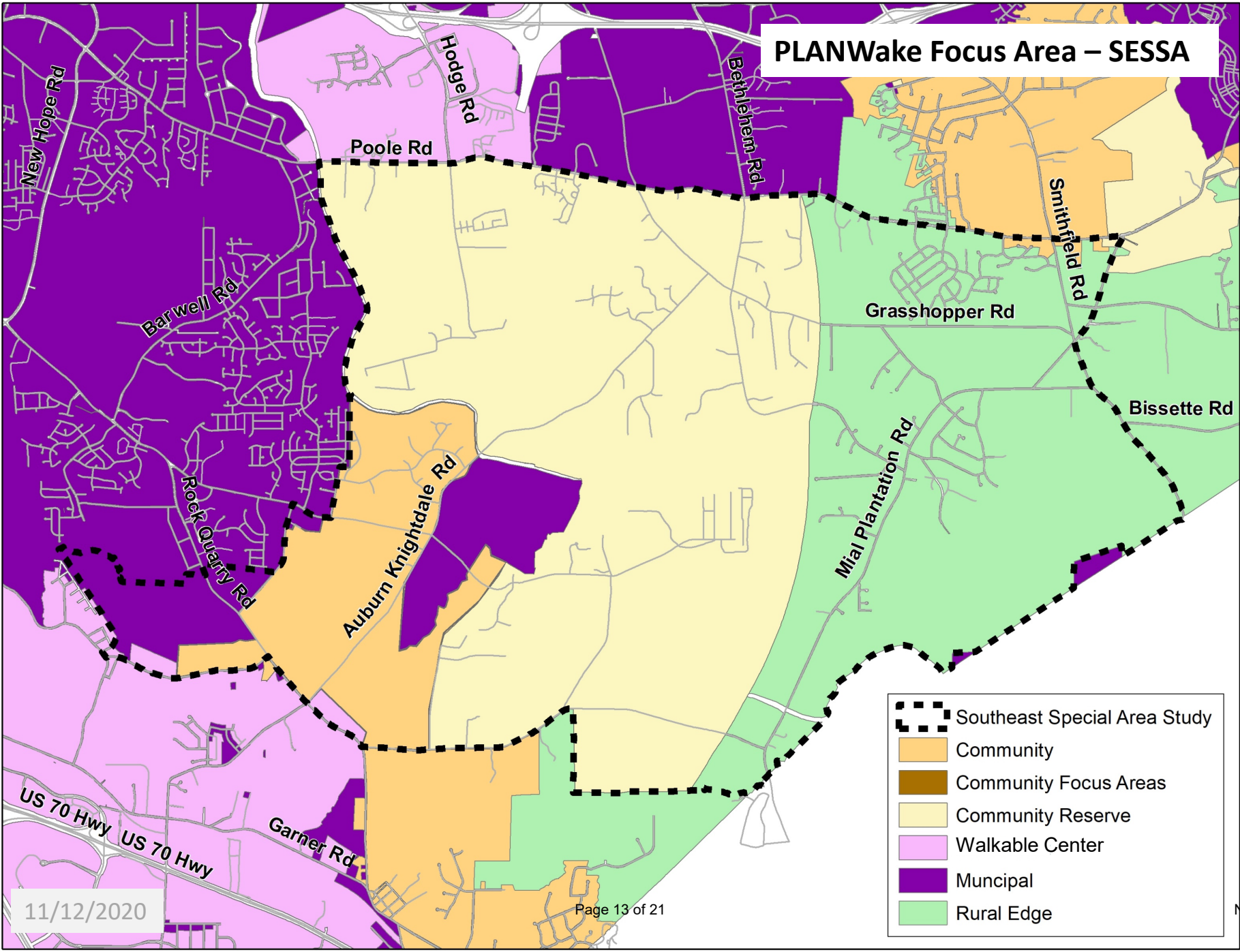
Remaining items in the project include, but are not limited to:

- Payment Card Processing Services
- Hardware Procurement
- Hardware Deployment
- End User Training
- Data Migration
  - Select Customer Accounts
  - Account Credits
  - Facility Reservations
  - Existing Memberships
- Configuration of the Customer-Facing Web User Interface
- Communication to Public (December/January)
  - Direct notification to current users detailing transition (via GovDelivery)
  - GovDelivery Raleigh Parks News and Events highlight
  - Website feature
  - Social media highlights

The new RMS system will allow for numerous improvements to PRCR's ability to serve customers. Some of the improvements are less visible, such as VSI providing the hosting services and the RMS presented as a web-based application, not a client-server based application. While transparent to the customer, these improvements provide for scalability contributing to improved performance for customers during peak registration periods and ease of access for staff.

Other system improvements are more visible to the customer by increasing access to programs and services, improving efficiency of the registration process and allowing patrons to complete more web-based transactions. Examples of these include the ability for customers to initiate facility reservations via the web. This improves access to facility rentals by allowing customers to reserve most facilities without having to physically visit a facility to complete the transaction. With VSI, PRCR will now be able to capitalize on the ability to offer memberships across a wider number of facilities. This will improve the ability to track usage and allow customers greater flexibility on how they choose to participate in our programs. These examples and other new enhancements represent valuable benefits to both the City and our customers.

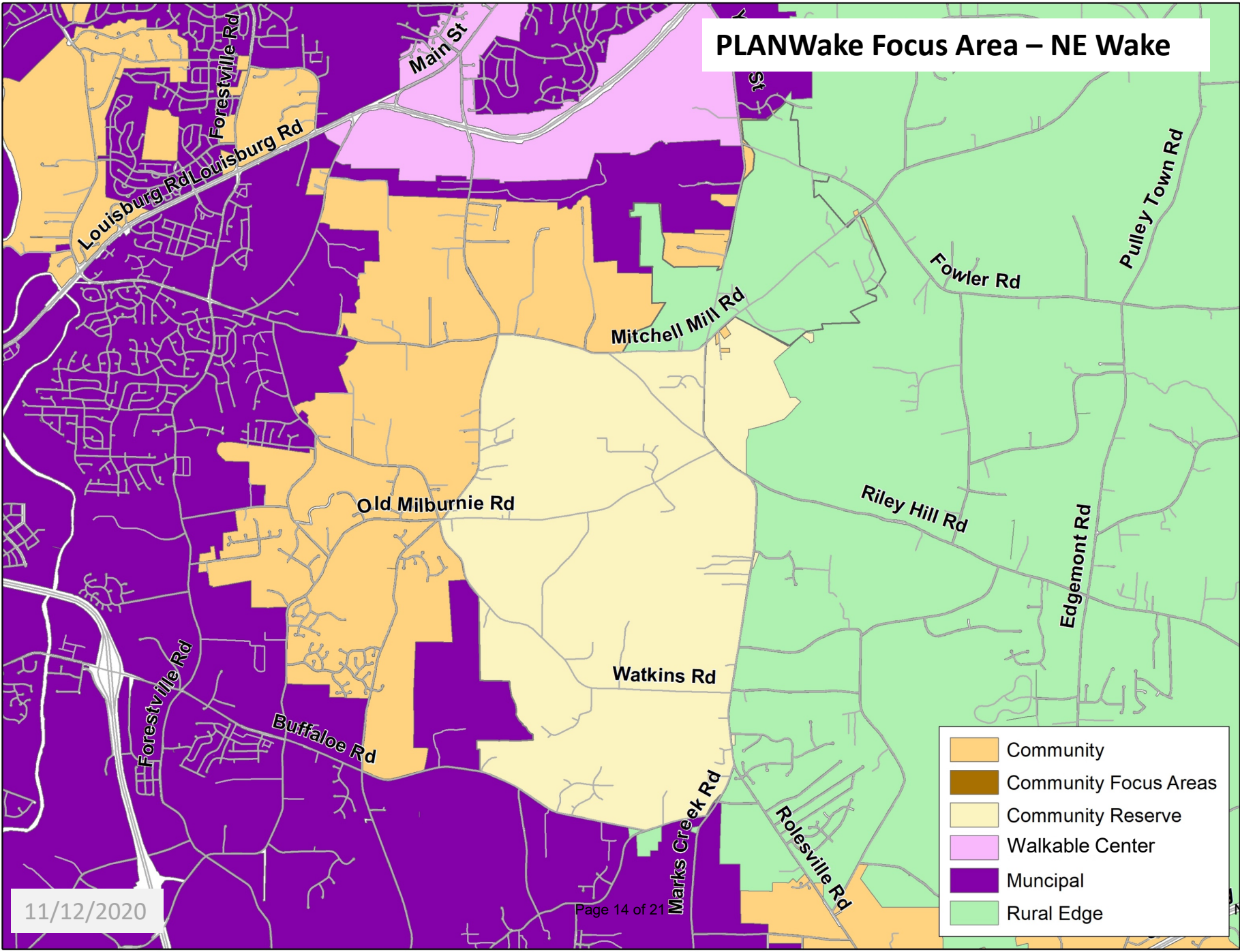
# PLANWake Focus Area – SESSA



- Southeast Special Area Study
- Community
- Community Focus Areas
- Community Reserve
- Walkable Center
- Municipal
- Rural Edge



PLANWake Focus Area – NE Wake



- Community
- Community Focus Areas
- Community Reserve
- Walkable Center
- Municipal
- Rural Edge



## Council Member Follow Up



### Stormwater Issues at 6400 Buffalo Road

Stormwater staff have visited 6400 Buffalo Road and have spoken to Ms. Lori Hare, who is the daughter of the resident of this home, to investigate the reported stormwater issues at this location. It should be noted that 6400 Buffalo Road is not located in Raleigh's City limits, but it is located in the extra jurisdictional territory (ETJ) of the City.

Based on reports and photographs provided by Ms. Hare, the property at 6400 Buffalo Road experiences regular occurrences of yard flooding stemming from the stormwater ditch that crosses the property from north to south, flowing away from Buffalo Road (see Figure 2).



*Figure 2. Photograph of yard flooding experienced at 6400 Buffalo Road, which emanates from a stormwater ditch adjacent to the house (photo is looking north toward Buffalo Road and the house is out of the photograph to the right).*

After flowing past the house, the stormwater ditch flows south to the back of the property where it turns sharply to the east along the back of the property line. In this back corner of the property, the ditch flows past a small yard shed. The cement blocks used as a foundation for the yard shed are being undermined by erosion from the ditch passing too closely to the shed (see Figure 3).



*Figure 3. Photograph of back yard shed where foundation block is experiencing erosion from the stormwater ditch.*



*Figure 4. Photograph of the stormwater ditch at 6400 Buffalo Road not draining properly after a rainfall event.*

In addition, it is reported that the stormwater ditch does not drain properly and stays full for a long period of time after a rainfall event (see Figure 4).

The stormwater issues at this location were first reported in 2012 and are believed to be attributed to the upstream development of the Stone Ridge subdivision. The Stone Ridge subdivision, which is across Buffalo Road and upstream from 6400 Buffalo Road, is located within Raleigh's City limits. The Stone Ridge subdivision was permitted in the early 2000s prior to the City of Raleigh requiring post-construction stormwater controls.

During construction of the subdivision, a construction sediment control basin was in place downstream of the subdivision adjacent to Buffalo Road and upstream of the location where stormwater flows under Buffalo Road toward 6400 Buffalo Road (see Figure 5). However, the construction sediment control basin was removed in about 2007 as construction of the Stone Ridge subdivision was finishing. Subsequent to its removal, additional houses were built on the location of the construction sediment basin. Reportedly, it was once this construction sediment basin was removed that downstream stormwater issues at 6400 Buffalo Road became more apparent.



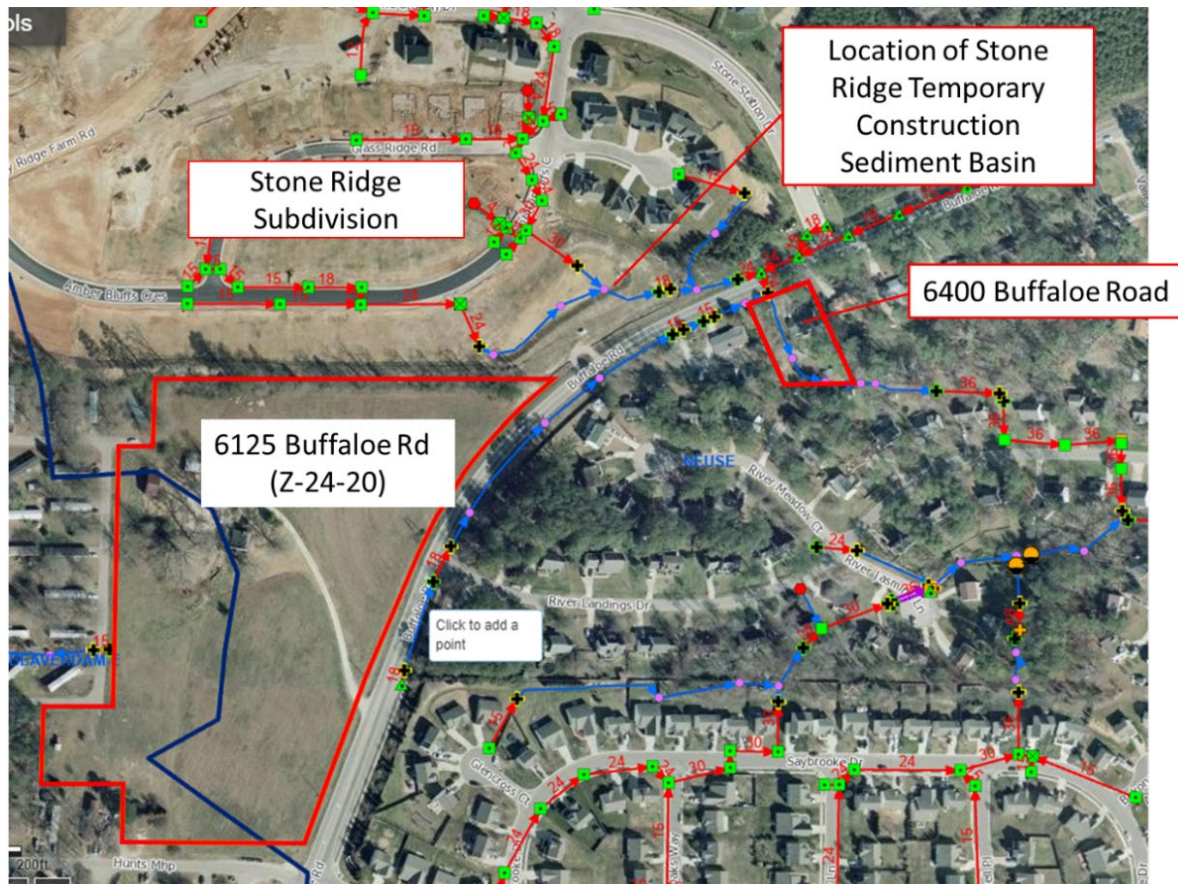


Figure 5. Aerial photograph from 2006 of Stone Ridge subdivision showing the temporary construction sediment control basin upstream of the property at 6400 Buffalo Road.

#### Proposed Rezoning at 6125 Buffalo Road (Z-24-20)

The property at 6125 Buffalo Road is proposed for rezoning from the current R-4 zoning to R-10-CU. The property is approximately 10.53 acres, approximately 7 acres of which drains toward Buffalo Road and toward the property at 6400 Buffalo Road. If approved, this rezoning would increase the allowable impervious surface on the property.

Development of the property at 6125 Buffalo Road would be subject to the City of Raleigh Stormwater Runoff Controls as designated under section 9.2.2 of the Unified Development Ordinance (UDO). This property has a documented downstream occurrence of structural flooding (defined per the UDO as flooding of a crawlspace, finished floor, garage and/or basement caused by concentrated stormwater flows and not groundwater infiltration). The downstream flooding is located at 6132 River Landings Drive. Note this location is further downstream than the yard flooding located at 6400 Buffalo Road.

As a result, development of the property at 6125 Buffalo Road per the UDO would be subject to a stormwater impact analysis to look at the difference between the flood level differences between pre-development and post-development conditions for the 25-, 50-, and 100-year storm events. If the analysis shows an increase greater than 0.04 feet between the pre-

development and post-development flood levels at the site of structural flooding, then mitigation to pre-development flood conditions will be required to prevent further damage to the affected property. This requirement is in addition to the standard requirement for controlling stormwater runoff to the pre-development peak flows for the 2- and the 10-year storm events.

#### Possible Resolutions for the Flooding at 6400 Buffaloe Road

There are two primary options available to address the flooding of the yard and the storage shed erosion at 6400 Buffaloe Road.

The first option is to regrade and improve the drainage ditch through the property to convey increased flow without overtopping. The ditch should be designed to convey flow for at least a 25-year storm event but designing for the 100-year storm event appears to be possible without significant impacts to the property. The ditch improvements should be performed to the back corner of the property and around the corner past the storage shed in order to prevent scouring of the ditch banks around the corner. It may be required to move the storage shed to another location to perform this work. The ditch should also be graded to drain all standing water after the rainfall has stopped.

The second option is to provide stormwater detention to reduce peak flows coming from the Stone Ridge subdivision during a storm event. The only location to install such detention is the location of the previous construction sediment basin. Given that two houses have been built on a portion of the land where the previous construction sediment basin was located, this site no longer appears sufficient in size to construct sufficient detention to mitigate the peak flows for the desired design storm (at least the 25-year storm event).

Therefore, option 1, regrading of the stormwater ditch on the property at 6400 Buffaloe Road, appears to be the most feasible option to address this yard flooding.

Because 6400 Buffaloe Road is not in the City limits, this property does not qualify for assistance under the City of Raleigh Drainage Assistance program policy. Further, if this property were in the City of Raleigh, the flooding at this location would not score as highly as many other more severe issues, thus it would be unlikely to be funded as a project under the Stormwater Program's prioritization model at this time.

#### Summary and Conclusions

The flooding experienced by the property at 6400 Buffaloe Road is impacting the yard and a storage shed. The cause of the flooding becoming more severe is believed to be the construction of the upstream Stone Ridge subdivision, which was permitted prior to the City of Raleigh having post-construction stormwater detention requirements.

The property at 6125 Buffaloe Road is proposed to be rezoned from R-4 to R-10-CU. This property is subject to post-construction stormwater control requirements for up to the 100-year storm event because of documented downstream structural flooding. The documented downstream structural flooding is located at 6132 River Landings Drive, which is downstream of 6400 Buffaloe Road. We believe that this increased stormwater control requirement will mitigate the stormwater impacts of development at 6125 Buffaloe Road on both reports of downstream flooding.



The yard flooding at 6400 Buffalo Road may be corrected by improving the capacity and the grading of the stormwater ditch through the yard. Because this property is not located in the City limits, it is not eligible for assistance under the Drainage Assistance policy. Further, if this property were in the City of Raleigh, the flooding at this location would not score as highly as many other more severe issues, thus it would be unlikely to be funded as a project under the Stormwater Program's prioritization model at this time.