

July 20, 2018
Via email

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**RE: National Flood Insurance Program (NFIP) Community Rating System (CRS);
City of Charleston, South Carolina**

Greetings,

Flooding has become epidemic in the Charleston, South Carolina Lowcountry. We, concerned citizens residing in the NFIP Community "City of Charleston", write to you to urge ISO to consider recent events that violate both FEMA Floodplain Guidelines and the City of Charleston's own Flood Plain Ordinance in determining the CRS Rating for the 2018-2019 period.

It is our intention to inform your office of a sample of current FEMA violations that ordinary citizens have repeatedly brought to the attention of our Charleston Mayor John Tecklenburg, Charleston City Council, and City officials with very little, if any helpful response.

Ordinary citizens can and should raise concerns when it affects the safety of the people in the communities in which they live, the safety of first responders, and the cost that inaction by local officials puts on both the public and in the case of the violations explained herein, the Federal Government.

We have reported the violations explained herein to State and Federal Agencies (DNR, FEMA, DHS, OIG, NPS) asking that they intervene, as the current City actions are not acceptable. These kinds of continued violations by the City of Charleston will exacerbate flooding, cause considerable hardship to vulnerable persons, put others at greater risk, and continue to generate significant escalating financial burden to the Federal government.

The main enforcement actions FEMA uses to encourage flood risk reduction are the CRS Rating system and the use of Sanctions (NFIP Probation or Suspension). Maintaining the current CRS rating of 6 or holding the City of Charleston in good standing despite NFIP non-compliance issues facing this city (and often caused by the city) is inconsistent with the goals of reducing flood risk.

Rewarding non-compliant communities is also inconsistent with Executive Order 11988 (established in 1977) as FEMA and the NFIP (and by subcontract ISO), are required to avoid, to the extent possible, long and short-term adverse impacts associated with occupancy/modification of floodplains. This includes activities that are in direct or indirect support of continued development in flood plains when there is a practical alternative.

The **practical alternative** is to hold the City of Charleston accountable **to follow established FEMA guidelines**. The City of Charleston should at a minimum be held to follow and enforce their own NFIP Ordinance, follow local and federal building codes, and be held accountable to rectify problematic situations resulting from their FEMA violations (*either with or without help from the Federal Sector*).

Herein, we present three examples of FEMA violations:

Example 1:

Historic Structures: Inadequate Infrastructure Maintenance, FEMA building code violations regarding Substantially Damaged and Improved Structures. (*Harleston Village Neighborhood, Downtown Charleston*)

Example 2:

Post-FIRM FEMA Violations: 148 house subdivision built below Base Flood Elevation (BFE), Repetitive Loss Properties, State/Federal Building Code Violations, Illegal Variances. (*Willow Walk Subdivision, Shoreham Road, James Island*)

Example 3:

A Flooding Disaster in the Making: Massive New Subdivisions being built in Floodplains, Development of Unsuitable Lands following Annexations. (*Johns Island, SC*)

Additionally, there are lingering questions concerning the current FEMA buyout of Bridgepointe Townhomes. These are: Post-FIRM repetitive loss structures built

below BFE, likely violations of the 50 percent rule, with exorbitant costs to FEMA and the public. Could this entire buyout situation have been avoided if the City of Charleston followed building codes and FEMA guidelines concerning BFE?


(Shadowmoss Neighborhood, West Ashley)

The examples we provide are but a few of the flooding issues facing Charleston. These violations contradict the goals of the CRS program to reward communities for effective flood plain management. It is in the best interest of the public to mitigate these violations as continued non-compliance with NFIP standards, or even state and federal building codes is both directly negligent and negligent per se for the people that these regulations were made to protect from harm.

While NFIP statute does not mandate community or state adoption of floodplain regulations, participation in the NFIP and CRS rating system does mandate and require the City of Charleston to enforce FEMA guidelines and follow their own NFIP Ordinance. As such their non-compliance should serve as a trigger for the enforcement steps of NFIP probation and changes in CRS rating to reflect these violations of the City of Charleston's negligence.

If you have questions concerning these examples during your CRS deliberations, please do not hesitate to contact us.

Thank you for your time,



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Senator Tim Scott
Senator Lindsey Graham
Congressman Mark Sanford

Example 1:

Historic Structures: Inadequate Infrastructure Maintenance, FEMA building code violations regarding Substantially Damaged and Improved Structures. (*Harleston Village Neighborhood, Downtown Charleston*)

Downtown: Lower Charleston Peninsula

In the past 3 years, over 60 residential homes in the Lower Charleston Peninsula have flooded repetitively generating millions of dollars in FEMA insurance claims. The region of the Lower Peninsula is approximately two-thirds filled marshlands as shown in the Historic Charleston Foundation map (left below) wherein the green signifies the original peninsula in 1670. By 1852, it generally resembled present day borders represented by brown. The western side of the lower peninsula (outlined in red on the NOAA map below right) overlaps 2 historic neighborhoods that are the most vulnerable areas of the National Historic Landmark Historic District to flooding.



Why are these Historic Homes flooding?

1) Inadequate Maintenance of Drainage Infrastructure

Flooding in the Historic Charleston is exacerbated by the failure of the City of Charleston to maintain existing drainage infrastructure. The Battery Seawall constructed in 1910 is in a state of deterioration and the drainage system is ineffective due to clogged pipes, broken and inadequate pumps, and deferred

maintenance. Moreover, infrastructure repairs and flood mitigation projects planned in 1984 have yet to be implemented.

2) Violations of the 50 percent rule

The City of Charleston routinely implements practices to ***actually encourage additional flood risk in the Historic District***. These practices, described herein: defy responsible flood plain management; violate FEMA guidelines; violate the City of Charleston's own NFIP ordinance; and cause exorbitant avoidable costs to FEMA and the public.

Most of the residential structures in Historic Charleston were built prior to the creation of the NFIP program and FEMA Flood Maps. Most, if not all, of the homes in the Historic District are below NFIP BFE current standards. These homes are eligible for NFIP backed flood policies at pre-FIRM rates.

Neighborhoods below BFE present additional levels of concern in regards to flood risk. The City of Charleston's NFIP ordinance requires a minimum elevation of BFE plus one additional foot for new construction and compliance to BFE standards.

A pre-FIRM structure that is rebuilt after sustaining flood damage exceeding 50 percent of its structural value must be rebuilt to current FEMA BFE. According to NFIP guidelines the 50 percent threshold is also cumulative for damage claims that span a ten-year period and collectively exceed 50 percent.

The City of Charleston does not enforce this rule and often issues permits that allow rebuilding to the same non-compliant BFE without issuing of any sort of variance that would override the 50 percent rule.

Substantial improvements to non-complaint structures:

In several cases, in violation of NFIP requirements, the City of Charleston allowed substantial post-FIRM additions to existing residences that are below BFE. These post-FIRM additions, violate both the BFE requirement and in some cases the 50 percent rule as improvements are more than 50 percent of the structure's value. It is very difficult to track the variance history of structures in the Historic District because variances granted to substantial improved structures are not attached to their deeds (a violation of FEMA guidelines).

3) Why wasn't the Historic District mitigated after Hurricane Hugo?

As a consequence of not enforcing the 50 percent rule after Hurricane Hugo (1989), non-compliant homes were not elevated, demolished or rebuilt at BFE. In addition, repeated rebuilding at incorrect BFE over the past 3 years has continued to exacerbate flood risk with no end in sight.

4) Failure to Issue Letters of Substantial Damage

The City of Charleston fails to identify structures estimated to have damages that should trigger the 50 percent rule. To date, only a single Letter of Substantial Damage appears to have been issued in the Historic District. Despite four separate floods affecting 60 different homes. Not identifying or issuing Substantial Damage Letters violates FEMA guidelines and complicates pursuing FEMA Increased Cost of Compliance (ICC) claims. In total, the City's actions encourage repetitive loss structures to remain non-compliant and unmitigated in the flood plain.

5) Further Complications in the Historic District: the Board of Architectural Review (the "BAR")

Decisions by the BAR have made it difficult for homeowners to meet the FEMA BFE requirements if proposed elevations increase the height of the house above the maximum allowed City Height Ordinance (Sec 54-306); elevating to the required BFE is impossible because it makes the roof too high!

Example 2:

Post-FIRM FEMA Violations: 148 house Subdivision under Base Flood Elevation (BFE), Repetitive Loss Properties, State/Federal Building Code Violations, Illegal Variances. (Willow Walk Subdivision, Shoreham Road, James Island)

In the early 1980's, the City of Charleston annexed Charleston County parcels of land on James Island (currently the Willow Walk Neighborhood) that were unsuitable for development. Shortly after, a housing subdivision (148 homes) had slab on grade foundations poured several feet below FEMA first floor Base Flood Elevations (BFE) requirements. The City of Charleston issued building permits and later deeds stating that the homes were situated in a "C" flood zone. This C flood zone designation was never appropriate, as the land on which these houses were built had been designated by FEMA to be at BFE 12 prior to the city's annexation. The FEMA maps for these land parcels have remained at AE-12 to the present day.



All the homes in this subdivision were built 2.5 to 3 feet below BFE. The last phase of Willow Walk, consists of a street called Shoreham Road (26 homes) that was completed in 1987. The Willow Walk homes were sold without indication of BFE non-compliance and with deeds issued by the City of Charleston designating that the houses were at "C" flood elevation.

Shortly after occupancy, several Shoreham homes (some 3 feet below BFE) began to flood. Shoreham residents had not purchased flood insurance as the elevation was designated on the deeds to be flood level "C" (i.e. not in a flood zone). After much effort several property owners realized that the elevation of these homes was below established federal and local building codes.

Upon discovery of these violations, Shoreham residents brought this issue to the attention of the Developer (Great Southern Builders) and the City of Charleston. The Developer refused to take back the homes, leaving homeowners responsible for their flooded houses and mortgage loans. The City of Charleston also refused to intervene to enforce state and local building codes, or their own NFIP City of Charleston Flood Ordinance. In a short-sighted effort to avoid responsibility, the City of Charleston illegally granted flood elevation variances to the Developer for 17 of the Shoreham homes. This after the fact variance, granted to an entity who no longer owned the property was illegal; in addition the City of Charleston violated EVERY SINGLE PROVISION for the granting of variances (See FEMA Variance Guidelines in Related Links Section following this synopsis).

The Shoreham owners were not advised of the variance until after it was issued. These owners never applied for this variance; they wanted out of the homes that were not built to code. The entire cost of repairing flooded houses was borne by the Shoreham owners and each of the houses included in the variance were now required to purchase flood insurance on homes that had been certified on the deeds of these properties as not being in a flood zone.

Shoreham residents filed several lawsuits but none were ever brought to trial, the expensive of such would have been unfeasible to persons in this working-class neighborhood. One resident had purchased their home with a VA loan, when their house was designated "uninhabitable" the purchase price was paid in full by a home warranty program through the Veteran's Association. This "uninhabitable" home was not demolished and was later sold (2017) to an unsuspecting family to

whom facts were never disclosed. Thus, an innocent family is now responsible for a mortgage on their “uninhabitable” home that flooded within the first four months of their occupancy.

The Shoreham variances and BFE non-compliance are not disclosed when these homes have been resold. In fact, until FOIA requests (answered in 2018 by FEMA Washington DC office) it was impossible for current Shoreham residents to even know if their home had a variance. It is a violation of FEMA guidelines that the variances are not attached to the deeds of these homes. City officials refused to provide residents with a copy of the variances or even tell homeowners if their homes had a variance. Thus, making it impossible for residents to even disclose variance information when selling their properties. Residents were told by city officials “variances have been lost” and the variances “will not be found”.

Only 17 of the 27 Shoreham houses built in Phase 3 were included in the 1987 Variance issued by the City despite the fact that all 27 were built several feet below BFE. One of the Shoreham houses not included in the 1987 variance had been flooded before it was ever sold. The City of Charleston granted a second variance to the Developer in 1989 for this house and another unsold house in Willow Walk changing zoning of these houses from "residential" to "commercial". This created a guise that unsold properties below BFE, which had flooded, could be sold as commercial properties and then become rental units.

This second after-the-fact-variance granted by the City of Charleston also violated provisions for granting of variances and the two houses in the 1989 variance have been repeatedly sold for decades as residential properties to unsuspecting people despite their commercial designation and illegal BFE.

These violations of zoning/BFE still persist in Willow Walk in 2018. Many houses on Shoreham (and on adjacent street Oakcrest in the Willow Walk subdivision) are now repetitive loss properties and FEMA is paying substantial amounts in claims. The City of Charleston has not issued Substantial Damage letters to these non-compliant homes following damage exceeding 50 percent of the value of these structures over the past three years. This results in a never ending cycle of repair and rebuilding and of substantially damaged structures, never brought up to code.

The City of Charleston is currently encouraging residents on Shoreham Road to apply for additional FEMA resources (in the form of a FEMA buyout) even though

the homes are up to 3 feet below BFE (and 4 feet below the City's own NFIP Ordinance). The City of Charleston has not rectified the "C" designations on the Willow Walk deeds, nor required Elevation certificates for these homes, nor followed FEMA guidelines of attaching these (illegal) variances to these homes, nor facilitated a plan to remove vulnerable people from an unsafe neighborhood. Thus the majority of the Willow Walk homeowners are unknowingly paying the wrong flood insurance rates and many have been caught completely off guard when their home floods. Once these houses flood, and elevations are revealed, the homeowners have houses they can't live in, can't get permits to fix, and are liable for their mortgages due to the City of Charleston's refusal to correct the situation it created in 1987/89.

The entire Willow Walk subdivision does not comply with local and state building codes and all homes are below BFE. Therefore, approximately 140 houses in this subdivision hold NFIP insurance policies with wrong insurance premiums as they are Post-FIRM non-compliant properties. Instead of demolishing or mitigating these homes by elevation, the City of Charleston allows the homes to be sold to unsuspecting residents while placing the entire cost of their violations on FEMA and City residents.

Shoreham has become a debtors' prison of homes its residents cannot escape without knowingly or unknowingly passing on these burdened houses to other purchasers who have no idea they are buying a house not built to code, infested with mold, and homes that may very well lead to their financial ruin. The City of Charleston has done nothing but deflect their violations and put the entire cost of the City's violations and non-compliance on FEMA or the residents.

Estimated and Real Costs:

Flood Insurance Claims paid out for Shoreham Houses in past 3 years exceed 1M.

Deductible costs to Shoreham Residents in losses in past 3 years exceed 300K.

Loss of property contents and damages to structures not covered: immeasurable.

Wrong "C" elevations on deeds for 140 Willow Walk houses resulted in illegal grandfathering of post-FIRM structures in AE-12 flood zone. Willow Walk houses with \$6000 differential (today's dollars) in erroneous flood insurance risk policies over 30 years of the City has not mitigated elevation issues in this neighborhood results in deficient NFIP insurance payments estimated to exceed 20 M.

Relevant Links:

2018 Charleston City Council: Shoreham Residents (video at 1:10:39-1:14:00)
<https://www.youtube.com/watch?v=h2GyZr6BAbo&t=4447s>

Residents voice concerns of proposed Willow Walk subdivision at Planning and Zoning Commission Meeting. Post and Courier; September 21, 1983.

Couple Return to a Waterlogged Home Again. Post and Courier; October 14, 1994.

Mayor Joe Riley tours flooded homes on Shoreham Road. Post and Courier; August 29, 1995.

Letter to Editor – “Shoreham Floods”. Post and Courier; February 27, 2018.

How a James Island Neighborhood was Destined to Flood. Post and Courier; April 28, 2018.

FEMA Publication on Variance Guidelines
https://www.fema.gov/pdf/floodplain/nfip_sg_unit_7.pdf

Example 3:

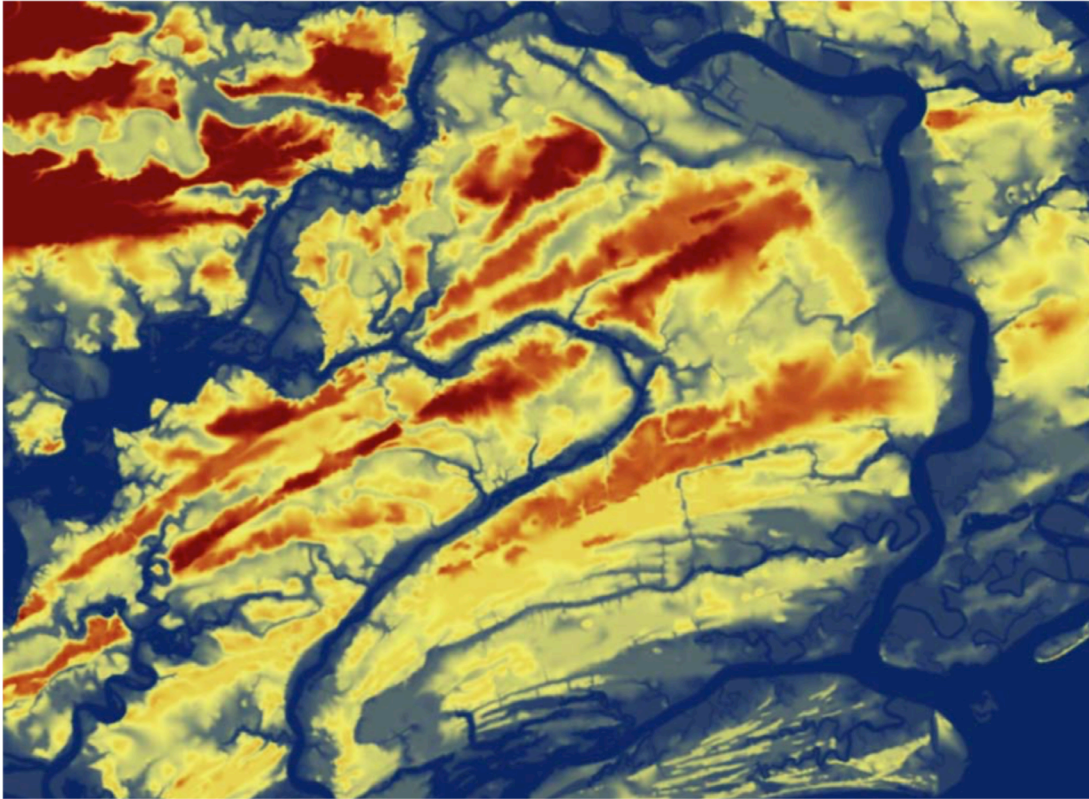
A Flooding Disaster in the Making: Massive New Subdivisions being built in Floodplains, Development in Unsuitable Lands following Annexations. (Johns Island, SC)

City of Charleston Floodplain Management practices 2005 to 2018 on Johns Island

The City of Charleston has fostered the construction of high density Planned Urban Developments (PUDS) in low-lying forested areas of Johns Island and their higher elevation watersheds decreasing public safety, increasing the risk of damage to life, property, public infrastructure, and economic disruption. Overall, City of Charleston development practices have reduced resiliency to flooding from rain and storms in contradiction to City Planning documents that have been received and/or ratified by Charleston City Council since 2007.

- Johns Island Growth Management Plan Ratified Nov 2007
- Johns Island Greenways Plan Adopted Sept 2008
- Charleston Green Plan Received Feb 2010
- Century V Plan Adopted Feb 2011

The above City of Charleston planning documents recognize the importance of forested watersheds and the fact that the topography of Johns Island was formed by ancient dunes running parallel to the seacoast. Early settlers built on the high dunes and farmed the lower areas. The lowest regions were populated by deciduous swamp forests comprised of gum, water oaks, pines, and other hydrophilic vegetation. These “sponge” forests absorb water when it floods and release water through transpiration during dry periods. They reduce the velocity of stormwater flow and wind while sequestering large amounts of carbon. Similar to tropical Malaysian peat forests, their deep root systems trap and retain large amounts of organic soils which form the basis of the subsurface flow path of water through a complex, reticulate watershed that plays a critical role in the hydrologic infrastructure of Johns Island.



LIDAR image of Johns Island, SC in which red is the highest elevation (approx. 25 ft) and blue the lowest (sea level). The parallel red ridgelines are fossil dunes formed when sea level was higher tens of thousands of years ago. The low-lying heavily forested shallow valleys between them drain northeast into the Stono River or southwest into Bohicket Creek. In response to this LIDAR imagery, Josh Martin, then Head of the City Planning Department and participant in the Johns Island Growth Management Committee recommended (in 2005) that there should be no housing developments built below 15 ft elevation (to prevent damage from storm surge in the event of a hurricane).

“Land at lower elevations will be recommended for agricultural uses, long-leaf pine forest, natural preserve or hyper-low density housing (one dwelling per 10 acres minimum) In particular, the low lying “fingers” which reach across the island will be considered unsuitable for neighborhood development. Most of this area lies outside of the Urban Growth Boundary, and it, therefore, reinforces the need to keep future development within the designated boundary limits....

*An elevation study (Illustration 15) indicates that **most of the existing neighborhoods and roads are situated on land above fifteen feet in elevation**. The land that lies on the northeast side of River Road (and therefore adjacent to the marsh and river) is predominantly at an elevation **below fifteen feet**. As such, it will be classified as appropriate for dwelling density of no more than one dwelling per two acres of land.”*

Johns Island Community Plan, 2007

In other City documents dwelling densities of one house per ten acres are called for on the same lands.

City of Charleston Planning Commission

Comprehensive Plan

According to the City of Charleston Planning Commission website “The most important document the Planning Commission and city staff use in reviewing items that come before the commission is the city's Comprehensive Plan, the Century V City Plan, which plots the City's development and redevelopment for the next 10 to 15 years. This plan was reviewed and approved by both the Planning Commission and City Council to be the city's guide for growth and development.”

Curiously though, the City of Charleston Planning Department and Planning Commission and City Council have continued to allow large housing developments below 15 ft elevation on Johns Island citing property rights to build over hazard avoidance. They ignore the City’s own plans and keep allowing developers to build on low elevation forested land, providing they raised the existing elevation with fill to comply with zoning (Base Flood Elevation +1 ft), but in violation of the tenets of Johns Island Community Plan, Johns Island Greenways Plan, and Century V Plan. Each project is treated individually with no appreciation of watershed dynamics. Developments keep moving into lower forested land as higher elevations become developed. At the mouth of Burden Creek one such project, Oakville Plantation, was approved by the Planning Commission after more than 3000 persons signed a petition objecting to the development and it was demonstrated that the applicant had not met the criteria for developing the land, again citing the property rights of the developer over any potential hazards or flooding problems the development might generate.

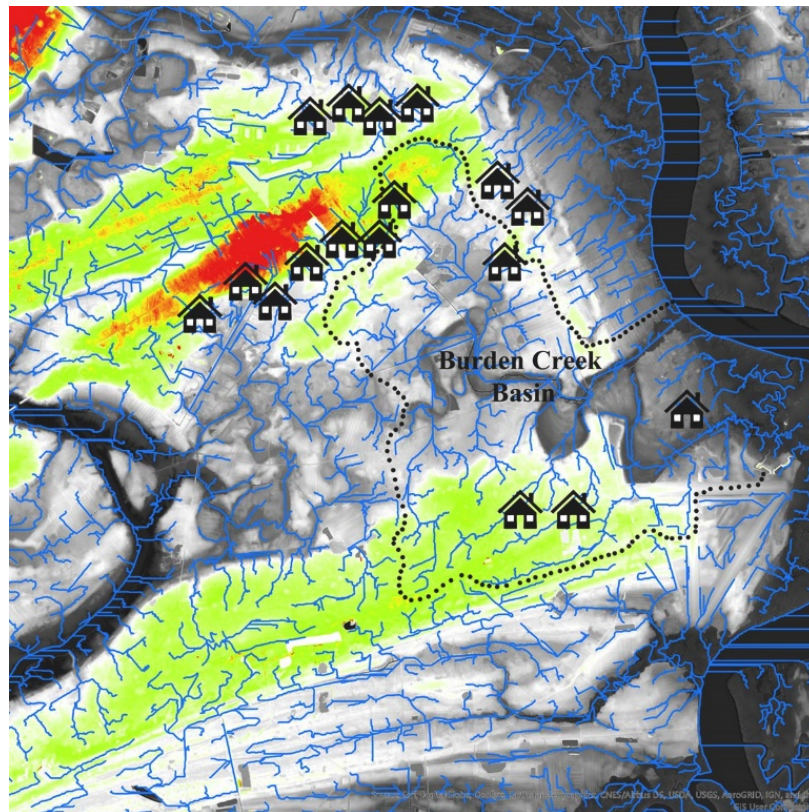
Link to signed petition:

<https://www.change.org/p/charleston-city-council-save-river-road-johns-island-sc-from-more-developement>

Additionally, the City of Charleston actively promotes rezoning (County to City) for greater housing density within the Johns Island Urban Growth Boundary zone.

Destruction of Floodplain Resiliency on Johns Island

Developers deforest, remove roots and organic soil layers, and infill with high clay content sand to regulatory elevations for slab-on-grade construction (https://www.youtube.com/watch?v=LwWacL_DBGw). Increasing watershed impervious cover increases runoff and stormwater flooding while reducing physical and ecological resiliency. The increased runoff flows into the bordering estuaries and rivers negatively effecting marine life (www.scdhec.gov/HomeAndEnvironment/Docs/CHP.pdf). The City planners even ignore City Ord. #1838 Adopted 1/20/15 AN ORDINANCE AMENDING CHAPTER 9 OF THE CODE OF ORDINANCES, CHARLESTON COUNTY, ENTITLED “FLOOD DAMAGE PREVENTION AND PROTECTION” that states “All subdivision proposals shall be consistent with the need to minimize flood damage”.



Flow-path analysis of the dunes and swale region of Johns Island revealed the watershed drainage area of an ephemeral river, Burden Creek (above). In this flow-path analysis, blue lines indicate the path of water flow from higher elevations to low. The dotted lines outline the boundaries of the Burden Creek Watershed. Black houses represent a sampling of the PUDs constructed, under

construction, or proposed after 2010. Infilling and increasing the impervious surface “hardening” the dunes will increase flooding of homes, properties, and people in the lower elevations with accompanying financial losses.

Additionally, developers routinely elevate the new subdivisions with infill higher than existing properties. This decreases the protection of existing floodplain properties and lands; runoff is “pushed” onto older, neighboring communities. In some developments, phase one homes of the development are flooded by the higher elevated lots of phase two homes (Stono View, Johns Island). There are reports of septic system failure in older neighboring homes as well as foundation subsidence or drinking well failures in the vicinity of newly dug retention ponds and/or dirt mine pits. Clearly, the scale of new development is altering aspects of Johns Island’s hydrology.

Current City of Charleston Floodplain Practices are Non-existent:

Existing City Planning practices pay little attention to flood protection, unique natural features, natural areas, and other environmental and aesthetic attributes that may be present in the floodplain. Current practices ignore, rather than protect or preserve natural and beneficial floodplain functions of forests that yield flood protection benefits and also help integrate floodplain management efforts with other community goals and objectives. There is no consciousness of watershed-scale impacts, let alone potential ways to manage the hazards that come with wide-scale watershed development. There is very little, if any City of Charleston effort on Johns Island, or in neighboring regions of the City to encourage community floodplain management activities that exceed the minimum NFIP requirements to:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management

Appendix:

Charleston City Ordinance excerpt

Ord. #1838 Adopted 1/20/15 AN ORDINANCE AMENDING CHAPTER 9 OF THE CODE OF ORDINANCES, CHARLESTON COUNTY, ENTITLED “FLOOD DAMAGE PREVENTION AND PROTECTION”

Sec. 9-43. Standards for subdivision proposals and other development. Standards for subdivision proposals shall meet or exceed the following minimum criteria: 1. All subdivision proposals shall be consistent with the need to minimize flood damage; 2. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage; 3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards, and; 4. Base flood elevation data shall be provided for all subdivision proposals (including manufactured home parks and subdivisions). 5. In all areas of special flood hazard where base flood elevation data is not available, the applicant shall provide a hydrologic and hydraulic engineering analysis that generates base flood elevations for all subdivision proposals and other proposed developments containing at least 50 lots or 5 acres, whichever is less.



The four locations of flooding discussed herein span disparate locations in the NFIP designated community “City of Charleston”.