

2014 City Of Savannah CRS 510 PLAN Annual Update. **NOTE: Currently working with AMEC in updating the 5 year 510 Plan and RLAA**

Action	Activity No.	Project Description	Priority	Currently Doing and	Activity Implantation Year						2009 Comments	2010 Comments	2011 Comments	2012
					2009	2010	2011	2012	2013	2014				
1. CONSTRUCTION PROGRAMS														
1	1.1	Conduct a full scale evaluation of comprehensive drainage system to identify needed projects, and sources of funds for projects in Paradise Park, Casey South and Placentia. Widen Springfield Canal where feasible and provide flood storage where can not widen. Study Chippewa Canal and Salt Creek. All projects need to be redesign to the 100 year storm.	High	***	***	***	***	***	***	***	1 Underway, however, project budgets so far total over \$300 M. Only \$28 M is allocated over next 6 years.	Temporarily the City Council keeps changing priorities from structural flooding to intersections, now that the majority of structural flood has been resolved. The City's direction is now to model all basins. The new Studies will include Chippewa and Wilshire Basins which have seen major improvements and will reduce the SFHA. Cost estimate of the 10 basins is around million dollars. Funding is being will be solely financed with City funds and using engineers that have done modeling in the basins if possible. Schedule: 2011 Start Study and complete in 2012	Now that the majority of structural flood has been resolved, Council has shifted priorities from structural flooding to street flooding. Study underway for Casey North, Bilbo, and Springfield	Now that the majority of structural flood has been resolved, Council has shifted priorities from structural flooding to street flooding. Study underway for Casey North, Bilbo, and Springfield
2	1.2	Enhance Drainage system maintenance program to unclog storm drains/ clear drainage channels and a public education component on proper yard waste disposal and eliminate brush disposal in canals.	High	***						***	2. Overtime cuts and budget considerations are cutting back on canal maintenance and increasing intervals	Budget cuts have reduced the time line of the maintenance program, but the SOP continues to be in effect just a few months behind schedule.	New OPC has more Clean Water Act language encouraging citizens to keep trash out of the drainage system. The city continues to feel the effects of funding cut back. Some positions have not been filled after employees leave. Work continues to be completed just at a slower pace.	Worked with Stormwater and MPC revising the OPC outreach addressing several topics to include ditch maintenance by the prevention of debris, fertilizer, and chemicals from entering the stormwater system. The publication reaches over 90% of the population, see Activity 330, OPC. Work continues to be completed just at a slower pace.
3	1.3	Evaluate causeways for storm surge stability.	Low	****				***	***	***		Changed from 2011 to 2012	Evaluation of the Truman completed and protected. The City has very few roads that are concerned during an event. Task completed.	Task completed.

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2. LAND USE														
4	2.1	Ensure zoning code limits development in the floodplain and wetlands to low density, and that a certain percentage of land remains as open space to provide a natural buffer from water bodies.	High			***	***	***	***	***		Metropolitan Planning Commission (MPC) and City of Savannah (COS) are continuing to draft a new Zoning Ordinance through 2011	The new zoning Ordinance has been drafted and presented to the public for review process through the end of 2011	A second draft of the new zoning Ordinance has been drafted and represented to the public for review process through the end of 2012
5	2.2	Reserve vacant low-lying , flood prone / wetland area for open space to maintain flood storage either through acquisition or regulation.	Moderate	***			***	***	***	***		COS has only purchased one (1) parcel in 2010 with FEMA deed restriction: 12465 Northwood Rd. Pin# 2-0758-05-041 a 70' x 130' (9100 sq. ft.) . We have 22 more properties through FEMA grants that are expected to close in 2011.	The COS purchased three properties and demolished the structure: 12465 Northwood Road (FMA), 11 Gerald Drive (HMGP 1686) and 1404 Cloverdale Drive (HMGP 1686).	This year we purchased two properties and demolished the structure: 1003 Stokes Street (LPDM 2008) and 1010 Stokes Street (LPDM 2008). We also demolished 1513 Woodland Circle (HMGP 1761), 130 Elm Circle (PDM 2009) and 2206 Texas Ave (HMGP 1761).
6	2.3	Purchase low lying land to create storm water retention areas and/or constructed wetlands to prevent flooding of nearby structures.	Low	***			***		***	***		The City continues to look at areas for future purchases that structural improvements are cost prohibitive.	City has purchased property along Betty Drive and a detention pond constructed to relieve flooding in the Brookview / Skidaway Terrace / Parkview S/D area of the Placentia Basin	1. Habersham Village and surrounding neighborhoods: design nearing completion. City has purchased R/W property along route and working with other land owners to obtain access to the Casey Canal. 2. Gwinnett / Wheaton Culvert: Construction project underway 3. Baldwin Park: Under design 4. Elevation of President Street: Design under review.
7	2.4	Evaluate FEMA-purchase properties for the highest use in providing floodwater / storm water storage and in accordance with authorized uses per FEMA regulations. Consider creative flood storages uses like cisterns, constructed wetlands, etc..	Moderate	***						***	***	GEMA and FEMA investigated Betty Drive purchase to ensure the City is using grant purchased properties correctly. Laura Walker continues her program "Floodways to Greenway"	Continue to evaluate open space. Discussed the used of planting a garden with FEMA and local neighbors.	The City received an acceptance letter from FEMA approving Betty Drive Drainage project. Continue to evaluate open space. Continue to discussed the used of planting a garden with FEMA and local neighbors. Planted Trees on Woodley Road properties.

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8	2.5	Require in the revision of the subdivision ordinance (current) that all new subdivision dedicate 20% of land as green space, and not to be used as detention or retention ponds, wetlands, or marshes.	High			***			***		Studying to add into the Subdivision Ordinance to include the term "Undisturbed" which requires a percentage of newly developed land that must remain in its natural state.	New Zoning Ordinance in review till end of 2011	Second version of the new Unified Zoning Ordinance in review till end of 2012	
9	2.6	Designate GaDOT properties that are unused as areas for flood storage.	Low	***		***	***			***	Working with GA.DOT to utilize several areas to include the ponds at I-516 and I-16 interchange. Beaver activities continue to be a concern in some areas.	I- 516 and I-16 location be used as storage. GA.DOT owns the property. City continues discussion with GA DOT to maintain as storage for stormwater detention	2012, no change: I- 516 and I-16 location be used as storage. GA.DOT owns the property. City continues discussion with GA DOT to maintain as storage for stormwater detention	
10	2.7	Reduce future vulnerability of Vallambrosa area through acquisition or regulations.	Moderate			***					10. Do you mean Vallambrosa? What to do? The road is at 8 and the BFE is 11 + Area continues to be developed. As new Subdivisions are plated Storm water and Flood Damage Protection Ordinances are used to reduce the potential of flooded properties. During the last quarter of 2010 and extending into 2011, FEMA, GA. DNR and Chatham Co. will start the Risk Map program which could create a Coastal A zone. The Risk MAP process should produce a more resilient community with the adoption of the newly designated Coastal A Zone maps and language in the Flood Damage Protection Ordinance.	Through Map Mod. the area was remapped with new flood zone delineation producing AE, X, and SHX zones. The new Risk Map program should delineate the "Coastal A" Zone with maps estimated completing date in 2015. Need to add Coastal A zone language in the City's Flood Damage Prevention Ordinance when maps are adopted.	2012, no change: Through Map Mod. the area was remapped with new flood zone delineation producing AE, X, and SHX zones. The new Risk Map program should delineate the "Coastal A" Zone with maps estimated completing date in 2015. Need to add Coastal A zone language in the City's Flood Damage Prevention Ordinance when maps are adopted.	
11	2.8	Add to the Flood Damage Protection Ordinance that will prohibit the enclosure of areas lager than 300 square feet.	Low							***	Continue to be discussed	No change at this time	No change at this time	

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3. MITIGATION PROJECTS														
12	3.1	Continue to purchase high-risk flood prone properties that are at the greatest risk of flooding and where drainage will not provide adequate protection.	High	***								As funds are available	Continue to evaluate properties and set priority to purchase.	The City's Real Properties Department has submitted and received HMGP approval for new flooded houses to be demolished. Program under way. Property Continue to evaluate properties and set priority to purchase.
13	3.2	Evaluate the feasibility of a floodproofing program for homes where acquisition not an option - historic homes.	Moderate	***					***	***				The 2008 Flood Prevention Ordinance requires structures that are outside the SFHA but flood are subject to Substantial Improvement requirements. Structures that are in the "Historic Area" and are listed in the City's "Flooded Structures" database are tracked and subject to the 50% Rules if a drainage CIP project has not provided 100 year protection.
14	3.3	Target Repetitive Loss FEMA structures for mitigation by conducting a detailed study as outlined in the Repetitive loss Area Analysis (RLAA) a CRS activity (under Activity 510).	High	***				***	***	***		The proposed ten (10) basin study will aide in this process.	City has approved to study three basins: Casey North, Bilbo, and Springfield	The City demolished two Repetitive Loss structures: 1815 E 56th St and 31 E 64th St.
15	3.4	Target critical facility for flood mitigation and set up an assessment process for each one that follows the same steps as the RLAA.	Low	***		***	***						Several critical facilities were presented this year for construction. Prior to purchase three separate departments reviewed the properties to ensure the new building are above the 500 year floodplain.	Critical facilities continuing to be checked for compliance with Flood Prevention Ordinance. This year several properties for fire and police stations were rejected because the property or access routes fall within the 500 year floodplain.

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4. COMMUNICATION															
16	4.1	Post flood information at libraries, post offices, heavily trafficked municipal building and community centers. Develop and post "potential high water mark signs" for the different flooding events in the area.	Low	***						***	***		Holding "Luncheon Lectures" educating local design professional of flooding mitigation alternatives. Maintain outreach public areas.	Continue to provide lunch and learn plus flood protection handouts in public buildings and library plus outreaches.	Participated neighborhood meetings and continue to provide flood protection handouts in public buildings and library plus outreaches.
17	4.2	Enhance central call-in number repository for reporting flooding problems afterhours - 311 calls roll over to the pump room.	High	***									Completed. 311 and Stormwater databases need to be configured to be compatible for records and accounting.	completed	completed
18	4.3	Continue to enhance the City's website "Flood Protection Information" webpage.	Moderate	***						***	***		Completed	LOMA's have been added to www.sagis.org site. SAGIS and City's web site nearing design completion of display elevation certificates.	City's website is currently being redesign to providing easier navigation ability to find Flood Related topics. LOMA's continue to be updated to the City's www.sagis.org site. Continue to work with SAGIS and City's web site for displaying elevation certificates.
19	4.4	Continue coordination with CEMA, the National Weather Service and USGS to enhance flood warning system, including the uses of rain/stream gages, to provide greater warning time for citizens. NWS can use the real-time data collected to issue timely warnings.	Moderate	***	***	***	***			***	***		Continued through Chatham Emergency Management Agency (CEMA). Rain gages need to be maintenance on a periodical schedule.	Continue activity	Continue activity with CEMA

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20	4.5	Update evacuation plans, taking into account the findings of the risk assessment in this plan, and including identification of area shelters for non-essential public works supplies and equipment.	Low		***	***	***			***	***		Part of CEMA's Multi Hazard Plan New Critical Facility at the Water Treatment Plant: 6183 NORTH HIGHWAY 21: CONSTRUCTION OF A BUILDING DESIGNED TO HOUSE PERSONNEL IN CASE OF A DISASTER, CAT. 5 HURRICANE, POURED IN PLACE CONC. CIP PROJECT	The City's new Critical Facility (6183 North Highway 21) nearing completion. CEMA revised Multi Hazard Plan included updated severe weather procedures and evacuations routes.	
21	4.6	Continue flood preparedness and outreach activities at local community events - Home Depot Hurricane Expo.	Low	***						***	***		Continued to be done. Earth Day: April 17, Home Depot: June 26, Savannah Mall: August 14 and GIS Day: November 17	Continued to be done. November 17, 2010 Earth Day: Saturday - April 23, Home Depot Day: Saturday - June 11, 2011	Continued to be done. November 16, 2011 Earth Day: Saturday - April 17, 2012 & Home Depot Day: Saturday - July 21, 2012
22	4.7	Mail information to all structures in the floodplain promoting flood insurance and sound floodplain management practices.	Moderate	***									Completed	completed	completed
23	4.8	Organize public information campaign and organize public cleanups to reduce litter/debris in storm drains.	High										Designing a new multi organizational outreach to include EPD' soil erosion, Recycle and Clean Water Act information.	Several community events organized by Jackie Jackson Teel, Laura Walker, and Bill Hodgins to clean marsh lands. OPC has new Clean Water Act information.	Several community events organized by Jackie Jackson Teel, Laura Walker, and Bill Hodgins to clean marsh lands. Publish proper disposal of oils and affects of fertilizer on the marsh in this years outreach to the community .

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24	4.9	Conduct public outreach and direct technical assistance - targeting repetitive loss properties and discussion of potential funding.	Moderate	***						***	***		Presented at neighborhood meetings: Placentia, Wilshire and Windsor	Presented at Wilshire Neighborhood Meeting and will at requested meetings. Held meetings and training for the joint venture of the City, Chatham County, local ASCE, Savannah State University and Jenkins Technical School program to get the Wards 3D Floodplain Model out into the community.	Presented at neighborhood meetings: Windsor Forest (March 3), Ben Van Clark (May 16), and The Highlands (June 19). Continue to be available for requested meetings which have flooding in the district.
25	4.10.	Create school projects that emphasize flood awareness and mitigation - such as, USACE's "Vision to Action Workshop".	Low				***			***	***		Working with Savannah State University and Savannah's branch of Society of Civil Engineers to introduce WARD's Floodplain Model into the school system and community organizations.	A joint venture of the City, Chatham County, local ASCE, Savannah State University and Jenkins Technical School program to get the Wards 3D floodplain Model out into the community.	Held educational out reaches with the Wards 3-D Floodplain Model at Jenkins High School (March 1) and Georgia Tech Jr. / SR. Engineering Summer campers (June 28) with local ASCE, Savannah State University and Jenkins Technical School program.
26	4.11	Establish program aimed at proving flood protection assistance to owners of flood prone properties, including site visit and advice on retrofitting and other mitigation measures.	Low	***										Advertised in the yearly outreaches (OPC, OPA and OPF)	Advertised in the yearly outreaches (OPC, OPA and OPF)
27	4.12	Educate the public on the use of permeable concrete paving and establishment of rain gardens to reduce flash flooding impacts.	Moderate	***		***	***						Luncheon Lectures provided a few sessions. New Outreach with this information.	Advertised in the yearly outreach (OPC) and Lunch and Learn	Attended Earth Day, neighborhood meetings, and GIS Day to discuss affects of clean water. Promote Good watershed practices in the new four page outreach to the community (OPC).

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28	4.13	Interviews and coverage on local news, in newspapers articles and through advertisement to promote flood mitigation.	High	***					***	***		The 2009 and one year anniversary of Atlanta floods generated a lot of articles in local newspaper and TV spots	June 2011, local TV News WSAV provided a special Hurricane Preparedness that include camera visit to Savannah Pumping station and Flood Insurance.	June 2011, local TV News WSAV provided a special Hurricane Preparedness that include camera visit to Savannah Pumping station and Flood Insurance.	
29	4.14	Provide flood mitigation updates and outreach to neighborhood groups and other interested parties via an email group address.	Low	***				***	***	***				Roger Raines, Pete Shonka and other Stormwater engineers hosted several stormwater neighborhood meetings to discuss the hazards and drainage improvements in the Habersham/ East 60th' Streets area and Waters Ave/Wheaton/Joe St area.	
30	4.15	Organize annual/semi-annual single focus public workshops/meeting to discuss flood mitigation.	Low	***		***			***	***		Savannah held Town Hall meeting to discuss local flooding concerns.	City organized a focused meeting: Habersham Village Mitigation Project with local neighborhood meeting and media. City continues Town hall meeting efforts this year.	City organized a focused meeting: East 60th Streets & Habersham and Gwinnett, Waters & Wheaton Street local neighborhood meeting and media. City continues Town hall meeting efforts this year.	
31	4.16	develop flood mitigation information sheets to be periodically submitted in utility bills.	Low			***	***						During the collaboration meetings of the new multi department/ agency OPC Outreach, the discussion of utilizing utility bills were discussed and decided to wait till next year to implement.	Needing funding	Needing funding
5. CODES AND STANDARDS															
32	5.1	Support efforts to update flood ordinance to include a one foot freeboard requirement.	High	***									Completed	Completed	Completed

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33	5.2	Support the definition of critical facility as defined in the newly revised flood ordinance and identify those facility under the definition that need to have flood risk protection upgraded to the 500 year flood. Obtain GIS data layers for facilities outside of current "critical facility" data layers and capture in an update to this Plan.	Moderate	***								The Flood Damage Protection Ordinance requires Critical Facilities and access routes to be protected to the 500 year flood.	Completed	Completed
34	5.3	Ensure the development of lots within previously approved subdivisions (e.g., infill) are elevated to above the base flood elevation (BFE) in a manner that does not increase potential flooding to adjacent properties (e.g., the development maintains pre development flood storage and elevation practices that displace flood water such as fill are closely examined).	High	***								The Flood Damage Protection Ordinance requires compensatory storage for all new development in the SFHA.	Completed	Completed
35	5.4	Adopt higher and strengthened enforcement of development and building standards. Long term process to evaluate current standards and develop support for potential increases.	Low					***	***	***		Currently a new Zoning Ordinance is going through the development process which includes flood protection language. The 2006 International Code has flood protection language written in it.	New Stormwater Ordinance of the Coastal Stormwater Coastal Stormwater Supplement going through adoption.	New Stormwater Ordinance of the Coastal Stormwater Coastal Stormwater Supplement in effect 2012. Georgia's SOS and City of Savannah scheduled to adopt the 2012 IBC and IRC Codes in 2014.

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36	5-5	Conduct site evaluations to bring Savannah - Chatham Co. School System into mitigation requirements including retrofit of properties with fill along the canals.	Low				***	***	***		As the school board remodels all the schools or construct new buildings the City Stormwater and Flood Damage Protection Ordinance are being enforced requiring the schools to be better flood resilient.	As schools are being constructed have to build to current standards	Continue to hold the School Board accountable for Critical Facilities for new and substantial improved structures to be above the 500 year floodplain. Largo/Tibet Elementary School completed a LOMA for structure and access roads are above the 500 year floodplain.	
37	5.6	Revise/strengthen storm water ordinance to enforce development checklist.	High				***	***				New Stormwater Ordinance of the Coastal Stormwater Supplement going through adoption.	March 22, 2013 City adopted new Coastal Storm water Supplement to take effect on April 1, 2012	
38	5-7	Strengthen and enforce requirement for drainage and roadway standards in all new development.	Moderate				***	***				The new Stormwater Supplement will increase standards. * Subdivision Ordinance now has language that requires roads to hold the 50 year 24 Hr storm between the curb street above 7.5 NGVD 1929, which elevates roads to a higher standard. However, Stormwater Department has suggested additional changes, but current Council does not want to increase development standards for economic reasons and resistance from development community	The main changes to the ordinance are as follows: <ul style="list-style-type: none"> • Added Coastal Stormwater Supplement definitions and minimum standards; • Added clarification of enforcement process; • Added applicability exemption for projects consisting of 5,000 square feet or less of impervious surface or less than one acre of disturbance; • Added exclusions for active development permits;- 5 - • Updated permit review process to Coastal Stormwater Supplement guidance; and • Added watercourse protection provisions. 	

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39	5.8	Consider and establish a development standard of one foot above the highest adjacent grade or one foot above the streets back of curb, whichever is higher for new construction. If the structure's lowest finish floor would be more than 3 feet below BOC then the structure's lowest finish floor has to be 3 feet above the highest adjacent grade.	Low				***					Current Subdivision Ordinance require above street level but not the 3' clause.	Current Subdivision Ordinance require above street level but not the 3' clause.	
40	5.9	Push for new development to incorporate both Low Impact Development (LID), No Adverse Impact (NAI), and Leadership in Energy and Environmental Design (LEED) principles which will likely mitigate flooding.	Low				***		***		The Coastal Stormwater Supplement that will be enforced in 2011 that will provide support for these elements. Continue to introduce the concept to local profession designer through the luncheon lectures.	In addition to the proposed Coastal Stormwater Supplement, the current proposed New Zoning Ordinance include Leeds and LID.	In addition to the proposed Coastal Stormwater Supplement, the current proposed New Zoning Ordinance include Leeds and LID.	
41	5.10.	Design site improvements to handle 100-year, 24 hour storm event.	Low			***			***	41. Cost to implement needs Council approval. Total so far is over \$300 M, and not all areas defined.	Require all new development adjacent to waterways to provide conveyance to the 100 year. Continue to discuss the requirement but receiving a lot of resistance from the development community.	New CIP Project are designed to requirement if supported by a Benefit Cost Analysis.	New CIP Project are designed to requirement if supported by a Benefit Cost Analysis.	

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42	5.11	Restudy Ogeechee River between I-95 and Chatham County/Effingham County border. Redefine 100 year flood boundary.	Moderate										Held a public meetings for map revision and current Physical Map Revision (PMR) going through appeals process.	
6. LOCAL FUNDING AND INVESTMENTS														
43	6.1	Establish storm water utility program to provide a dedicated source of revenue to fund storm water projects.	Low					***	***	43. Stormwater utility to fund existing program. Fees too high for improvements	Due to the poor economy can not entertain the imposed fee at this time.	Current Council does not want to impose additional fees on citizens.	Current Council does not want to impose additional fees on citizens.	
44	6.2	Provide flood protection assistance to vulnerable populations (elderly, disabled and low-income individuals) so they can purchase flood insurance.	High					***			Continues to be discussed but lacking funding or grants.	No change at this time	No change at this time	
45	6.3	Strategically focus SPLOST funds toward identified drainage improvements projects.	High	***	***						Continues to be reviewed	Storm water has projects ready for construction Casey North and Baldwin Park Drainage improvements. They have prioritized the Placentia basin, reconstruction of Springfield bottom box, and Kayton out fall. Waiting on release of funds from council.	Storm water has projects ready for construction Casey North and Baldwin Park Drainage improvements. They have prioritized the Placentia basin, reconstruction of Springfield bottom box, and Kayton out fall. Waiting on release of funds from council.	

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7. LOCAL FLOOD INSURANCE ISSUES														
46	7.1	Document drainage improvements in special flood hazard areas (SFHAs) and request revisions to the applicable FIRM maps to reflect new conditions through the FEMA Letter Map Revision (LOMR) process.	High			***					46. No budget identified for funding.	The 2008 Flood Damage Protection Ordinance require changes of water ways or major drainage improvements for the developer/engineer to submit and have approved through FEMA a LOMA prior to a Certificate of Occupancy being issued.	Completed	Sent several emails to Unincorporated Chatham County and GA DOT requesting a LOMA for the new Truman Parkway at Abercorn. The construction may have elevated the BFE one (1) foot. Will continue to monitor and follow up with emails.
47	7.2	Identify FEMA mechanisms for restoring preferred risk flood insurance premium rates for Repetitive Loss properties not in the SFHA and protected by recent drainage system improvements. These properties were moved to a more costly flood insurance premium rate once identified as Repetitive Loss.	High	***		***						I inquired about restoring Preferred Risk insurance to a FEMA designated Repetitive Loss dwelling. I was informed that once a structure is on FEMA's Repetitive Loss list the structure can ever receive Preferred Risk insurance again.	Completed	Completed
48	7.3	Complete AW-501 forms for acquired Repetitive Loss properties to remove from FEMA Repetitive Loss Property list (or classify each as "mitigated").	High	***								Completed	2011 reviewed and sent to ISO's Sherry Harper	2012: No new structures added to Repetitive Loss Database. Mitigated Two Structures 1815 E 56th St 31 East 64th St.
49	7.4	Promote flood insurance through community notification to citizens and business personnel by newspaper, letters, and public outreach.	Moderate	***								Yearly	Yearly 10-14-2011 w/ Roger's & 10/31/2011 w/ Pete's comments.	Yearly 9/28/2012 w/ Pete's approval, Roger said no changes since last year.

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1	1.1	Conduct a full scale evaluation of comprehensive drainage system to identify needed projects, and sources of funds for projects in Paradise Park, Casey South and Placentia. Widen Springfield Canal where feasible and provide flood storage where can not widen. Study Chippewa Canal and Salt Creek. All projects need to be redesign to the 100 year storm.	High	***	Study for North Casey received. Casey South, Bilbo and Springfield studies in draft form. Funding for additional basin studies was attached to the City's SPLOST VI request to the County, earlier this fall.	Basin Studies were not funded by SPLOST IV. No new progress made upon task
2	1.2	Enhance Drainage system maintenance program to unclog storm drains/ clear drainage channels and a public education component on proper yard waste disposal and eliminate brush disposal in canals.	High	***	Continue to work with Stormwater , MP, Unincorporated Chatham Co., and Water Dept. to provide relative up to date information in the community outreach.	OPC provides clean water and debris awareness. City continues to strive to maintain much of the storm system each year to meet state requirement and hot spots .
3	1.3	Evaluate causeways for storm surge stability.	Low		Task Completed. However, new FEMA costal inundation mapping study by Taylor Engineering underway for new FIRMs to reflect Coastal A zones. New maps scheduled to be to be released in 2015.	Task completed. CEMA new Multi Jurisdiction Plan and new Recovery Support Function Plan.

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4	2.1	Ensure zoning code limits development in the floodplain and wetlands to low density, and that a certain percentage of land remains as open space to provide a natural buffer from water bodies.	High	***	Zoning new ordinance still under review. Delay from administrative and community development reviewers.	Local Coastal Stormwater Supplement (CSS) provides regulations for set backs and awards higher LID practices. Zoning's new ordinance still under review. Delay from administrative and community developers.
5	2.2	Reserve vacant low-lying , flood prone / wetland area for open space to maintain flood storage either through acquisition or regulation.	Moderate	***	Only one house, 7301 Van Buren Ave. was demolished this year. City has submitted 17 new houses for demolition under two grants, but the City does not have the required funds at this time	Moving forward with the submitted HMGP grant to purchase 17 new properties.
6	2.3	Purchase low lying land to create storm water retention areas and/or constructed wetlands to prevent flooding of nearby structures.	Low	***	Gwinnett/Wheaton Drainage Improvements project completed in Fall 2013. Baldwin Park drainage improvements project is out to bid as of late Sept. 2013	Current strategy of leaving lands on tax rolls and letting exiting development standards keep green space green continues.
7	2.4	Evaluate FEMA-purchase properties for the highest use in providing floodwater / storm water storage and in accordance with authorized uses per FEMA regulations. Consider creative flood storages uses like cisterns, constructed wetlands, etc..	Moderate	***	The City has already established two neighborhood gardens (Hudson Hill Neighborhood and SCAD @ Boundary St). The City is working with GEMA and the Wilshire Estates Neighborhood Association to build a 1800 SF garden. Five additional neighborhood groups are planning gardens.	City has established three new community gardens this year.

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8	2.5	Require in the revision of the subdivision ordinance (current) that all new subdivision dedicate 20% of land as green space, and not to be used as detention or retention ponds, wetlands, or marshes.	High		Unified Zoning Ordinance has once again halted for further review from the administration and community development reviewers.	No Change
9	2.6	Designate GaDOT properties that are unused as areas for flood storage.	Low	***	2012, no change: I- 516 and I-16 location be used as storage. GA.DOT owns the property. City continues discussion with GA DOT to maintain as storage for stormwater detention	Current strategy of leaving lands on tax rolls and letting exiting development standards keep green space green continues.
10	2.7	Reduce future vulnerability of Vallambrosa area through acquisition or regulations.	Moderate		2012, no change: Through Map Mod. the area was remapped with new flood zone delineation producing AE, X, and SHX zones. The new Risk Map program should delineate the "Coastal A" Zone with maps estimated completing date in 2015. Need to add Coastal A zone language in the City's Flood Damage Prevention Ordinance when maps are adopted.	No change
11	2.8	Add to the Flood Damage Protection Ordinance that will prohibit the enclosure of areas larger than 300 square feet.	Low	***	No change at this time	Unincorporated Chatham County (UCC) has passed language limiting enclosed areas below the BFE in V zones. The City will need to mirror UCC Ordinance

Action	Activity No.	Project Description	Priority	2014	2013	2014
12	3.1	Continue to purchase high- risk flood prone properties that are at the greatest risk of flooding and where drainage will not provide adequate protection.	High	***	No houses at this time. 17 houses are going through the process.	Moving forward with the submitted HMGP grant to purchase 17 new properties.
13	3.2	Evaluate the feasibility of a floodproofing program for homes where acquisition not an option - historic homes.	Moderate	***	Several permit have been issued in the Historic area. Each application was reviewed for local flooding concern. Only one permit was in an area that a stormwater project could not improve the flood hazard. The structure was elevated one foot above the known flood depth.	Although the new Fire Station #5 was built in a X Zone, the area was known to flood and the building was required to be built above the known flood hazard. Continue to monitor new construction in other hot spot areas and require the houses to be built above the known flood hazard.
14	3.3	Target Repetitive Loss FEMA structures for mitigation by conducting a detailed study as outlined in the Repetitive loss Area Analysis (RLAA) a CRS activity (under Activity 510).	High	***	Lynnette Allen of the City's Real Properties Department has on file a list of houses which needs to be demolished as GEMA notifies us of available mitigation funds.	GEMA and the City are working together to increase the buy out program in efforts to reduce the NFIP and local Repetitive Loss inventory.
15	3.4	Target critical facility for flood mitigation and set up an assessment process for each one that follows the same steps as the RLAA.	Low	***	Critical facilities continuing to be checked for compliance with Flood Prevention Ordinance. This year several properties for fire and police stations were rejected because the property or access routes fall within the 500 year floodplain.	Critical facilities are continuing to be checked for compliance with Flood Damage Prevention Ordinance. This year the City Manager and Real Property Services Department rejected several property locations for fire and police stations because the property or access routes fell within the 500 year floodplain.

Action	Activity No.	Project Description	Priority	2014	2013	2014
16	4.1	Post flood information at libraries, post offices, heavily trafficked municipal building and community centers. Develop and post "potential high water mark signs" for the different flooding events in the area.	Low	***	COMPLETED! Also, participating in local Realtors workshop coving the topic of Biggert Waters Act of 2012 and the benefits of CRS.	Completed. The City has a closer relationship with Insurance and Realtor community through Realtor Workshops.
17	4.2	Enhance central call-in number repository for reporting flooding problems afterhours - 311 calls roll over to the pump room.	High		Completed.	Completed.
18	4.3	Continue to enhance the City's website "Flood Protection Information" webpage.	Moderate	***	City has a new web page. The main page has a Flood Protection topic that leads viewers to the Flood Information page that include links to Historic FIRM, point of interest web links, local flood hazards & information, 510 Plan, Flood ordinance, and outreaches.	LOMA are on the SAGIS/City web page, and Elevation Certificates to be completed be the end of 2014.
19	4.4	Continue coordination with CEMA, the National Weather Service and USGS to enhance flood warning system, including the uses of rain/stream gages, to provide greater warning time for citizens. NWS can use the real-time data collected to issue timely warnings.	Moderate	***	Continue to work with CEMA. Mr. Dan Stowers is the City's new Hazard Director. Dan has worked with both CEMA and GEMA. By Dan working at both agencies he is aware of what is needed to run a successful hazard department. His unique knowledge allows him to coordinating several new training event and coordinating with other agencies.	As part of the new 510 Plan, Jonathan Lamb and Blair Holloway of the NWS are participating as part of the stakeholder's committee. CEMA are now sending out weekly reports and tweeting warnings and other news concerns.

Action	Activity No.	Project Description	Priority	2014	2013	2014
20	4.5	Update evacuation plans, taking into account the findings of the risk assessment in this plan, and including identification of area shelters for non - essential public works supplies and equipment.	Low	***	The City's new Critical Facility (6183 North Highway 21) completed. The City is partnering with Armstrong State University and other location to provide building/housing during a event for critical work force. CEMA revised Multi Hazard Plan included updated severe weather procedures and evacuations routes.	Continue coordinating with CEMA as they update their Recovery Support Function Planning Meetings.
21	4.6	Continue flood preparedness and outreach activities at local community events - Home Depot Hurricane Expo.	Low	***	Continued to be done. Earth Day: Saturday - April 20, 2013, Permitting Day: Saturday April 13, 2013 and Home Depot Day: Saturday - June 15, 2013	Continued to be done. GIS day November 2014; Home and Guarding Show February 28 - March 2, 2014; Earth Day: Saturday - April 19,2014; Home Depot Day: Saturday - June 14, 2014.
22	4.7	Mail information to all structures in the floodplain promoting flood insurance and sound floodplain management practices.	Moderate		Completed	Completed
23	4.8	Organize public information campaign and organize public cleanups to reduce litter/debris in storm drains.	High	***	On October 19 , 2013 River Rivers Alive cleaning the Harden Canal. Also work with Jackie Jackson Teel, Laura Walker, and Bill Hodgins to clean marsh lands. Publish proper disposal of oils and affects of fertilizer on the marsh in this years outreach to the community .	This year's OPC featured an article of the Vernon River since the new parkway was opened. Also, working with Jackie Jackson Teel, Laura Walker, and Bill Hodgins to clean marsh lands. OPC highlighted proper disposal of oils and the effects of fertilizer on the marsh in this years outreach to the community. Promoted the Rivers Alive activity of cleaning the Harden Canal

Action	Activity No.	Project Description	Priority	2014	2013	2014
24	4.9	Conduct public outreach and direct technical assistance - targeting repetitive loss properties and discussion of potential funding.	Moderate	***	Participated as an instructor at the Realtor Workshop, September 5, 2013, October 10, 2013 and November 7, 2013. Continue to offer speaking at neighborhood meeting. Continue to use the Ward's Floodplain Model at several outreaches.	Participated as an instructor at the quarterly Realtor Workshop. Attend six neighborhood meeting. Use the Ward's Floodplain Model at two local schools.
25	4.10.	Create school projects that emphasize flood awareness and mitigation - such as, USACE's "Vision to Action Workshop".	Low	***	No activity in the schools. Offered services to Steve Steve Wohlfeil during the elementary school's Engineering Week. GT did not have their summer camp due to funding cut back.	Used the Wards Floodplain Model on at Classic Academy School on May 19, 2014 and Engineering Camp June 12, 2014
26	4.11	Establish program aimed at proving flood protection assistance to owners of flood prone properties, including site visit and advice on retrofitting and other mitigation measures.	Low		Advertised in the yearly outreaches (OPC, OPA and OPF)	Advertised in the yearly outreaches (OPC, OPA and OPF)
27	4.12	Educate the public on the use of permeable concrete paving and establishment of rain gardens to reduce flash flooding impacts.	Moderate		Attended Earth day, neighborhood meetings, and GIS Day to discuss affects of clean water. Promote Good watershed practices in the new four page outreach to the community (OPC).	Attended Earth day, neighborhood meetings, and GIS Day to discuss "clean water" principles. Promoted smart watershed practices in the new six page outreach to the community (OPC).

Action	Activity No.	Project Description	Priority	2014	2013	2014
28	4.13	Interviews and coverage on local news, in newspapers articles and through advertisement to promote flood mitigation.	High	***	WSAV: Interviewed for Hurricane Season to promote Flood Insurance, CRS and BW12. Reached out to WTOC and FOX but never materialized. Was two article this that includes the September 15, 2013 article Homeforsale.com concerning BW12, Flood Insurance and CRS.	As part of updating the CRS 510 Plan the City held three local meetings that WTOC, WSAV, and WJCL covered.
29	4.14	Provide flood mitigation updates and outreach to neighborhood groups and other interested parties via an email group address.	Low	***	Staff has attended Neighborhood meetings in Cloverdale, Summerside, and Baldwin Park	Neighborhood meetings attended in 2nd district, 3rd district, Mayfair, Magnolia Park, and Feiler Terrace
30	4.15	Organize annual/semi- annual single focus public workshops/meeting to discuss flood mitigation.	Low	***	Staff has attended Neighborhood meetings in Cloverdale, Summerside, and Baldwin Park	Three meetings held in summer 2014
31	4.16	develop flood mitigation information sheets to be periodically submitted in utility bills.	Low		Needing funding	Concentrating on the OPC and OPF
32	5.1	Support efforts to update flood ordinance to include a one foot freeboard requirement.	High		Completed	Completed

Action	Activity No.	Project Description	Priority	2014	2013	2014
33	5.2	Support the definition of critical facility as defined in the newly revised flood ordinance and identify those facility under the definition that need to have flood risk protection upgraded to the 500 year flood. Obtain GIS data layers for facilities outside of current "critical facility" data layers and capture in an update to this Plan.	Moderate		Completed	Completed
34	5.3	Ensure the development of lots within previously approved subdivisions (e.g., infill) are elevated to above the base flood elevation (BFE) in a manner that does not increase potential flooding to adjacent properties (e.g., the development maintains pre development flood storage and elevation practices that displace flood water such as fill are closely examined).	High		Completed	Completed
35	5.4	Adopt higher and strengthened enforcement of development and building standards. Long term process to evaluate current standards and develop support for potential increases.	Low	***	FEMA and GEMA continue risk based mapping for new FIRMs.	Received revised FIRM July 7, 2014

Action	Activity No.	Project Description	Priority	2014	2013	2014
36	5.5	Conduct site evaluations to bring Savannah - Chatham Co. School System into mitigation requirements including retrofit of properties with fill along the canals.	Low	***	School modifications continue to be evaluated under the City's SPR review process	School modifications continue to be evaluated under the City's SPR review process
37	5.6	Revise/strengthen storm water ordinance to enforce development checklist.	High		CSS continues to be utilized following last year's ordinance upgrade	Coastal Stormwater Supplement (CSS) use continues.
38	5.7	Strengthen and enforce requirement for drainage and roadway standards in all new development.	Moderate		CSS continues to be utilized following last year's ordinance upgrade	CSS use continues.

Action	Activity No.	Project Description	Priority	2014	2013	2014
39	5.8	Consider and establish a development standard of one foot above the highest adjacent grade or one foot above the streets back of curb, whichever is higher for new construction. If the structure's lowest finish floor would be more than 3 feet below BOC then the structure's lowest finish floor has to be 3 feet above the highest adjacent grade.	Low		Current Subdivision Ordinance require above street level but not the 3' clause.	Flood projection ordinance mandated by state implemented in 2008
40	5.9	Push for new development to incorporate both Low Impact Development (LID), No Adverse Impact (NAI), and Leadership in Energy and Environmental Design (LEED) principles which will likely mitigate flooding.	Low	***	In addition to the proposed Coastal Storm water Supplement, the current proposed New Zoning Ordinance include Leeds and LID.	Several hotels utilized the Green Roof ordinance and continue to support the grey water section of the City's and IBC/Plumbing Code
41	5.10.	Design site improvements to handle 100-year, 24 hour storm event.	Low	***	New CIP Project are designed to requirement if supported by a Benefit Cost Analysis.	CIP Projects are designed to 100 year where feasible. Development standard continues at 25 year

Action	Activity No.	Project Description	Priority	20104	2013	2014
42	5.11	Restudy Ogeechee River between I-95 and Chatham County/Effingham County border. Redefine 100 year flood boundary.	Moderate	***	PMR FIRM maps were adopted on August 5, 2013. Riverine studies are being completed. Start of community and public review process in late February 2014 .	Adopted the Riverine FIRM update on July 7, 2014.
43	6.1	Establish storm water utility program to provide a dedicated source of revenue to fund storm water projects.	Low		Utility fee program presented to Council as an alternative funding source in August briefing	No progress
44	6.2	Provide flood protection assistance to vulnerable populations (elderly, disabled and low-income individuals) so they can purchase flood insurance.	High		No change at this time	No change
45	6.3	Strategically focus SPLOST funds toward identified drainage improvements projects.	High	***	Focused drainage project lists were furnished to City leaders for use in developing the SPLOST VI project list for submittal to the County.	SPLOST IV list primarily rehabilitation for failing lines.

Action	Activity No.	Project Description	Priority	2014	2013	2014
7. LOCAL FLOOD INSURANCE ISSUES						
46	7.1	Document drainage improvements in special flood hazard areas (SFHAs) and request revisions to the applicable FIRM maps to reflect new conditions through the FEMA Letter Map Revision (LOMR) process.	High		Continue to engage with GADOT and their consultants to provide the Windsor Subdivision and Holland Drive flood studies from the Truman Parkway. Jacob's engineering consultant company said the fill did not cause a foot of rise so no LOMA needed. Sent an email to GADOT , attention Mr. Welch 'awelch@dot.ga.gov' but as of today no reply.	NO Change
47	7.2	Identify FEMA mechanisms for restoring preferred risk flood insurance premium rates for Repetitive Loss properties not in the SFHA and protected by recent drainage system improvements. These properties were moved to a more costly flood insurance premium rate once identified as Repetitive Loss.	High		Completed	Completed
48	7.3	Complete AW-501 forms for acquired Repetitive Loss properties to remove from FEMA Repetitive Loss Property list (or classify each as "mitigated").	High		2013: No new structures added to Repetitive Loss Database.	2014: No new structures added to Repetitive Loss Database.
49	7.4	Promote flood insurance through community notification to citizens and business personnel by newspaper, letters, and public outreach.	Moderate		Yearly	Yearly

NOTE: Currently working with AMEC in updating the 5 year 510 Plan and RLAA