

MINUTES
January 8, 2015
REGULAR COUNCIL MEETING
6:00 P.M.

Town of Edisto Beach
Town Hall
2414 Murray Street
Edisto Beach, SC 29438

Present: Jane S. Darby, Mayor Pro Tempore, Pete Anderson, Susan Hornsby and Patti Smyer, Council Members; Absent: Mayor Burley L. Lyons, medical issues. *Quorum of Council Present.*

Mayor Pro Tem Darby welcomed guests and thanked all who served the Town of Edisto Beach.

Council Session opened with the *Pledge of Allegiance* and a word of prayer by Councilwoman Smyer.

Approval of Minutes

Councilwoman Smyer moved to approve the Regular Council Meeting minutes of December 11, 2014. Councilwoman Hornsby seconded the motion, which was approved unanimously.

Proclamations and Presentations

A. Starfish Award – Edisto Realty – Mayor Pro Tem Jane Darby presented a Starfish Award to Matthew Kizer of Edisto Realty for his generous donation of a live Christmas tree for Bay Creek Park.

Mayor Pro Tem Darby recognized Deborah Hargis for receiving a scholarship to attend the International Institute of Municipal Clerks Region III Annual Conference in Jacksonville Florida the week of January 12, 2015.

Old Business

A. Deer Population on Edisto Beach – DNR wildlife biologist Dean Harrigal addressed Council and those in attendance concerning the deer population. Several audience members told Mr. Harrigal the deer had become a nuisance by eating vegetable gardens, flowers, shrubs and foliage. Another audience member expressed concern about the health of the deer. Mr. Harrigal explained that deer seldom if ever starved, and Edisto Beach has plenty of food and living space for the deer. He suggested that residents take precautions by putting up fencing around gardens, using chemical repellent or planting shrubbery and flowers that deer don't like to eat. He told those in attendance that if residents become concerned with their safety and if deer vs. car accidents increase, then there would be a significant problem. Mayor Pro Tem Darby thanked Mr. Harrigal for his time and noted Council would take the information under advisement.

B. Update on Temporary Moratorium on the Issuance and Approval of Building Permits and Record Plats for the Big Bay Creek and Scott Creek Property Owners sewer line project in the Town of Edisto Beach for Properties Situated Inside the Municipal Boundaries to the Town Sewer System through the Big Bay Creek and Scott Creek Property Owners sewer line project – Bob Doub, Utilities Director, updated Council on the Moratorium. The hydraulic evaluation of the collection system is being done currently by AECOM. Information requested by AECOM has been forwarded, including pump curves for pump stations A, B and C, pump station run-time data, wastewater treatment plan flow data, pump station unit contributory loading, and pump station draw-down data. An AECOM representative will be at Edisto Beach on January 9, 2015 working with the Utilities Department conducting additional draw-down studies to ensure that the numbers are equating. Mayor Pro Tem Darby explained to those in attendance that a 90-day review is required any time a moratorium is put in place until a solution is available.

C. Civic Center – Mayor Pro Tem Darby told those in attendance that a decision on the Civic Center had been deferred due to a scheduling conflict with Colleton County. The Colleton County Council meeting has been moved to January 13, 2015 so Council should have an update at the February meeting.

New Business/Appearances

A. Coastal Science and Engineering Survey Report No. 8 Annual Beach and Inshore Surveys and Assessment of Beach and Groin Conditions – Steven Traynum and Trey Hair provided a PowerPoint presentation which is attached.

B. Ocean Water Monitoring Station Tier Re-assessment/Non-Permitted Discharge Assessment within Big Bay Creek and the South Edisto River at Edisto Beach, S.C. Study Report – David Payne from the Department of Health and Environmental Control presented a PowerPoint which is attached.

C. Causeway Beautification – DHEC, OCRM and the State Park have agreed to permit work on the causeway without mitigation. This project was suggested by the TIDE Committee. Councilwoman Hornsby moved to approve beginning the vegetation trimming, removal and clean-up work on the causeway with an estimated cost of \$5,000 or less to be transferred from the General Fund Contingency to Public Works Parks/Recreation. Councilwoman Smyer seconded the motion, which was approved unanimously.

Committee Vacancies

A. Construction Board of Adjustments and Appeals – 3 vacancies – Bob Sandifer and David Salter have been appointed to the Construction Board of Adjustments and Appeals. No other applications have been received.

B. TIDE Committee – 1 vacancy – Mary Edna Keller’s term expires in February and she has decided not to pursue another term. No applications have been received to date.

Departmental Reports and Committee Updates

Administration

Town Administrator Iris Hill gave the financial report for December 2014.

	Received	Spent
General Fund	46.48%	54.84%
Water Fund	61.78%	53.18%
Wastewater Fund	68.58%	47.14%

Building

Building Codes Official, Patrick Brown, gave the report for December 2014.

	December-13	December-14	YTD
Business/Rental License Fees	\$8,498.75	\$2,789.25	\$11,709.00
New Construction Permits	3	0	3
Other Permits	19	33	112
Permit Fees	\$7,366.00	\$4,631.00	\$19,323.50
Inspections	60	37	268
Bay Creek Park	0.00	\$150.00	\$9,435.00

Fire

Fire Chief Denney Conley gave the report for the month of December 2014.

Calls	December-13	December-14	YTD
Medical	34	9	140
Fire-related	6	5	30
Public Assistance	22	12	246
Beach Wheel Chairs	3	1	61
Water Rescue	-	0	8

Police

Bill Coffey, Police Chief, gave the report for the month ending December 31, 2014.

	December-13	December-14	YTD
Citations	27	15	150
Speeding	20	14	89

Warnings	74	72	566
Alarm Calls	19	8	83
Calls for 2 or More Officers	19	8	62
Miles Patrolled	7,705	8,672	49,763
Assaults	0	1	7
Larcenies	0	4	34
Burglaries	0	0	2
Incidents & Calls for Service	69	96	797
Golf Cart Violations	0	0	11
Domestic Violence Calls	0	0	0
Property Checks	2,385	2,074	9,846
Open Container	0	0	7
D.U.I.	-	0	2
CDV Arrest	-	0	0
Disorderly Conduct	0	0	6

Utilities

Bob Doub, Utilities Director, gave the report for December 2014.

	December-13	December-14	YTD
Pumped MG Water	8.82	7.63	94.03
Treated MG Wastewater	2.77	2.92	27.59
Water Line Repairs	2	2	22
Work Order Repairs	60	83	578

Abdella Services completed ten valve insertions on six- and eight-inch water lines on Palmetto Boulevard, Jungle Road, Lybrand Street, Myrtle Street and Sunset Street. This is part of the Town's upgrade to the water system in preparation for adding more valves and replacing valves for better control of the water system.

Public Works

Public Works Director Bob Doub gave the report for the month of December 2014.

	December-13	December-14	YTD
Mowed Acres	0	0	274
Cleaned Ditches	5,271ft	0ft	15,043ft
Roll Carts Delivered	2	8	51

The Public Works Department has been busy cleaning beach accesses, moving roll carts under houses and placing new stickers on the roll carts, notifying residents and visitors of the garbage schedule.

Chamber of Commerce

Dan Carter, Executive Director of the Edisto Chamber, gave the report for the month of December, 2014.

- The Edisto Museum will have their member meeting and reception on January 11th.
- The Edisto Eats Festival will have an oyster roast on January 16th at Bay Creek Park.
- On January 19, 2015 there will be a Business After Hours sponsored by Andy Cook CPA and Cook Financial2 at Finn's Island Grill.
- On January 24, 2015, Dockside Restaurant will host a shag event and oyster roast with DJ Jim Bowers beginning at 1:00 p.m.
- The first preliminary cook-off for the Edisto Eats Ultimate Chef Competition will be held on January 27 at Pressley's at the Marina.
- The Beach Home Tour collected \$600 for the Beach Renourishment Fund.

Public Comment Period

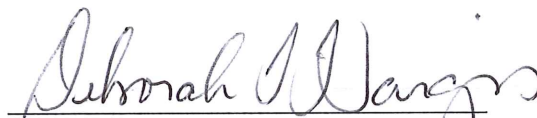
No one had any comments.

Adjournment

Councilman Anderson moved to adjourn the meeting. Councilwoman Smyer seconded the motion which was approved unanimously.

The media/public was duly notified of the date, time and location of the meeting on Wednesday, December 31, 2014.

APPROVED BY TOWN COUNCIL



Deborah Hargis, Municipal Clerk

February 12, 2015

Edisto Beach Renourishment Project Update

Steven Traynum
Coastal Science & Engineering



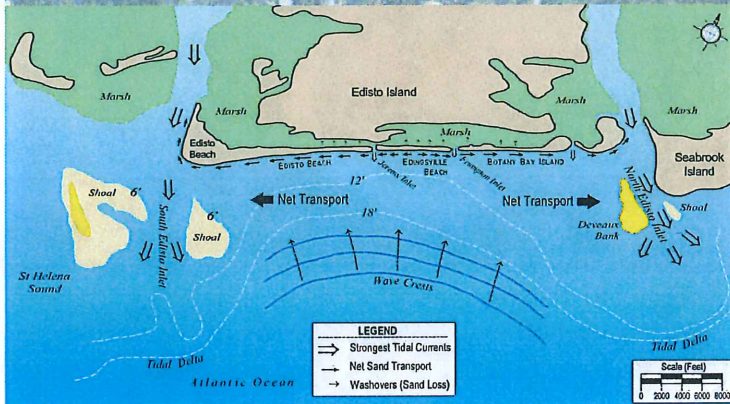
Edisto Beach

- 5.8 miles from Jeremy Inlet to Big Bay Creek
- ~3.4 miles of upland along the Atlantic
- ~190 oceanfront homes in project area
- ~2,180 residential units
- Renourishments:
 - 1954, 1995, 2006
- Groins
 - 34 groins built between 1948 and 1975
 - Groins rehabilitated in 1995



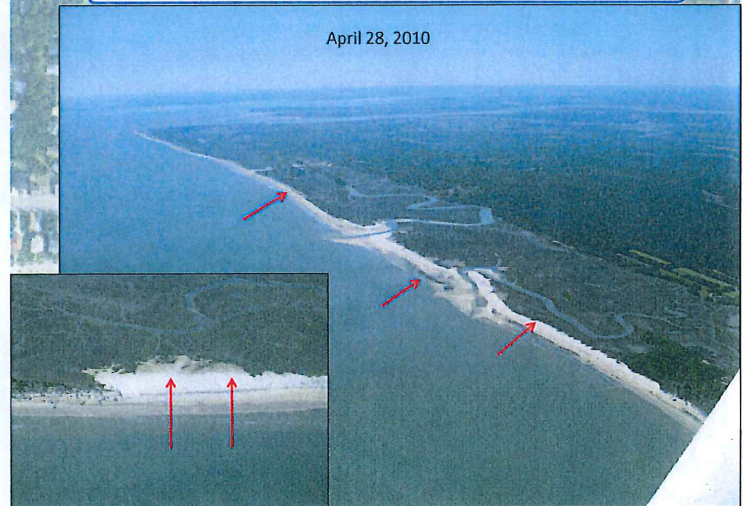
Erosion & Groin Construction History

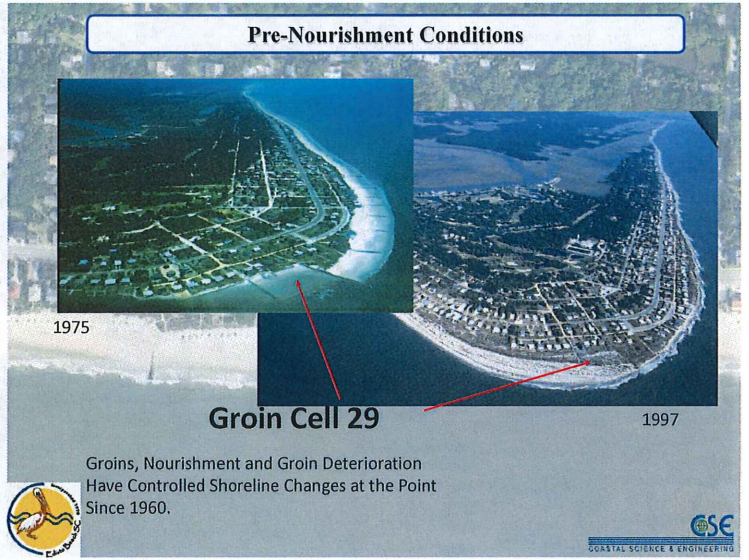
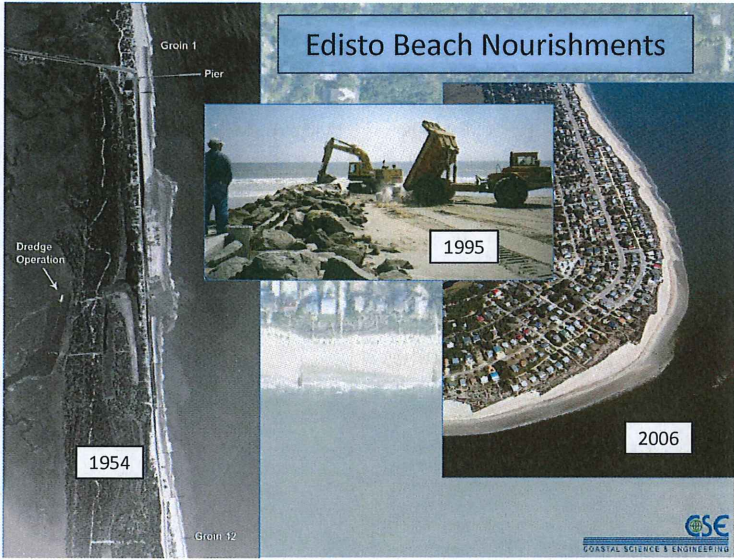
Primary Sand Transport Processes and Directions For Edingsville and Edisto Beach



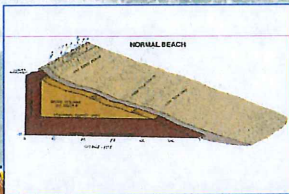
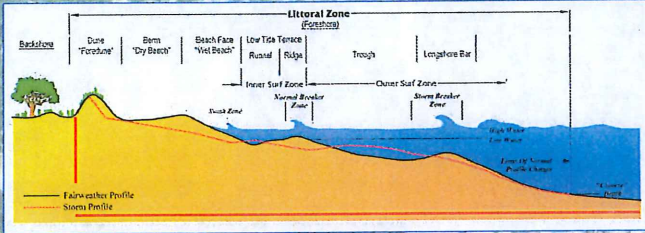
Sediment Sources?

April 28, 2010





Beach Monitoring

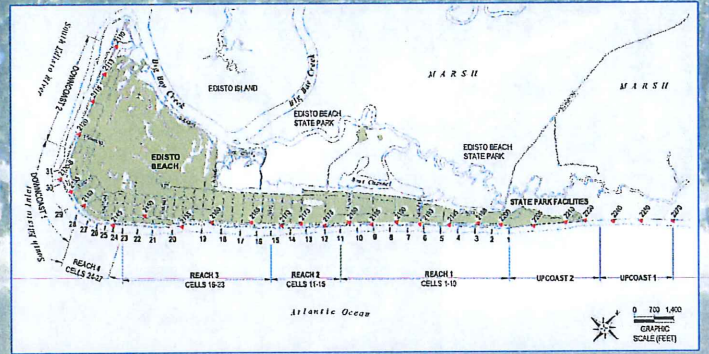


Surveys Extend Into Deep Water And Take Into Account Seasonal Changes In The Profile Of The Beach



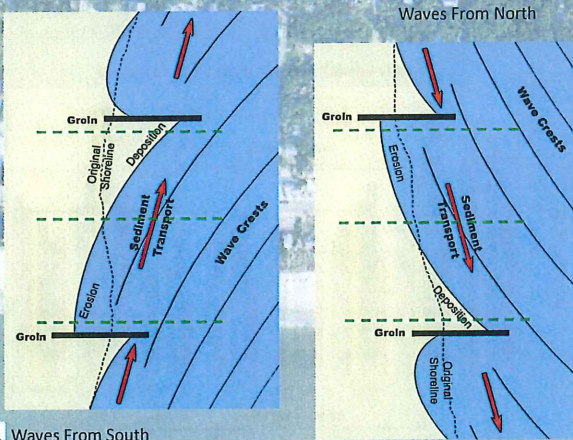
CSE
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Beach Monitoring Reaches



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Beach Response

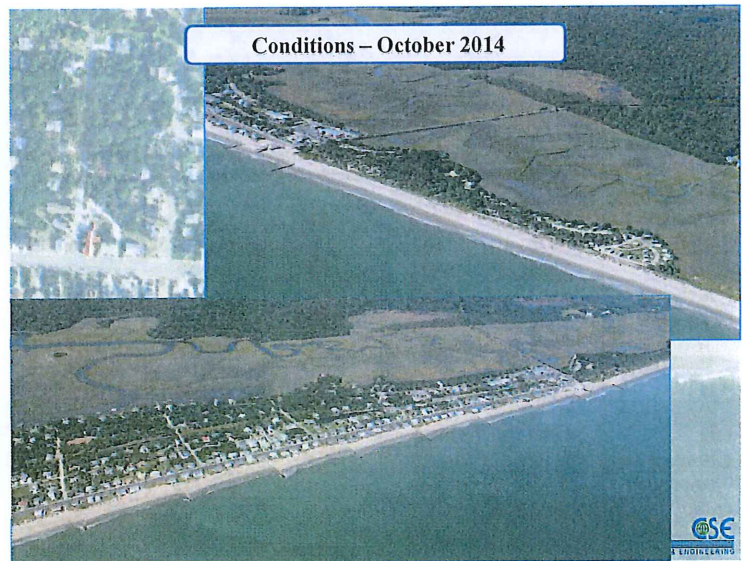


Waves From South

Beach Profile (3 per groin cell)

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Conditions – October 2014

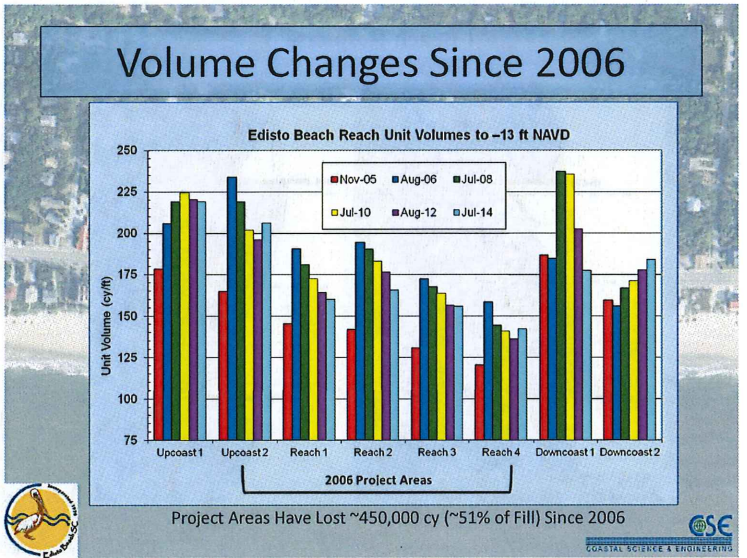


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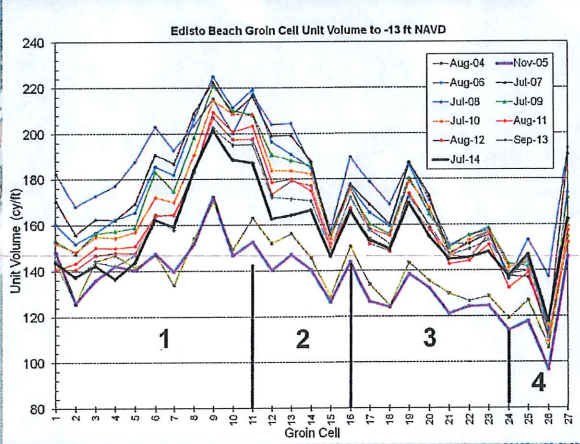


Volume Changes

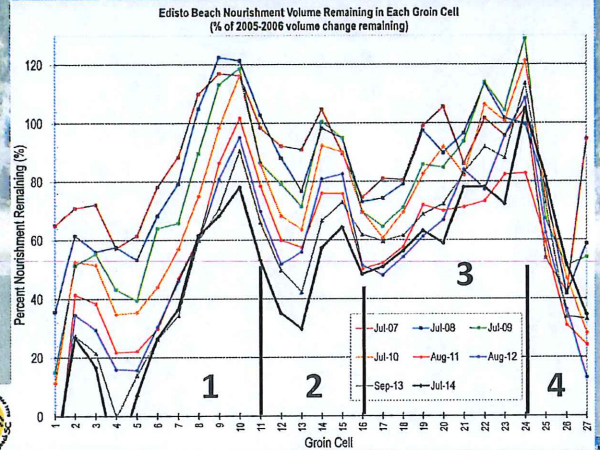
Reach Volumes (cy)	Length (ft)	2013-2014 Change (cy)	2013-2014 Unit Change (cy/ft)	2005-2014 Change (cy)	2005-2014 Unit Change (cy/ft)
Upcoast 1	3,160	-12,674	-4.0	129,077	40.8
Upcoast 2	2,675	10,506	3.9	111,150	41.6
Reach 1	5,993	-10,424	-1.7	88,557	14.8
Reach 2	3,004	-19,213	-6.4	71,962	24.0
Reach 3	5,110	-19,339	-3.8	128,806	25.2
Reach 4	1,378	3,357	2.4	30,210	21.9
Downcoast 1	3,012	-31,780	-10.6	-27,972	-9.3
Downcoast 2	4,039	11,998	3.0	99,468	24.6
Project Area	18,160	-35,113	-1.9	430,685	23.7
Totals	28,371	-67,569	-2.4	631,258	22.3



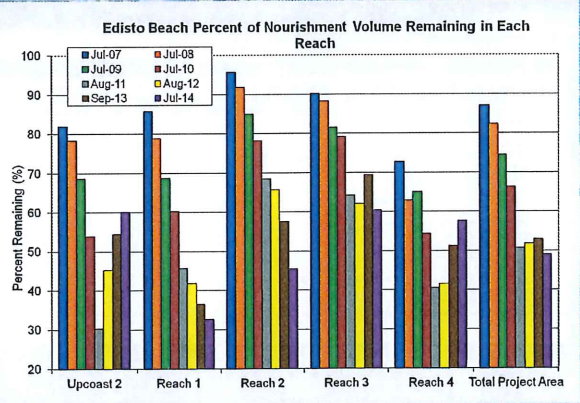
Volume Changes Since 2006



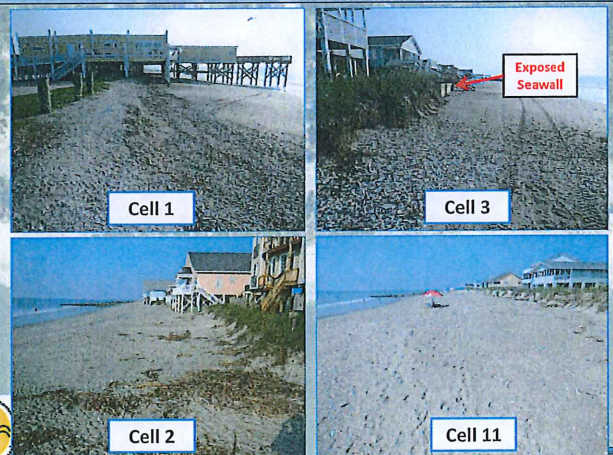
Volume Changes Since 2006



Volume Changes Since 2006



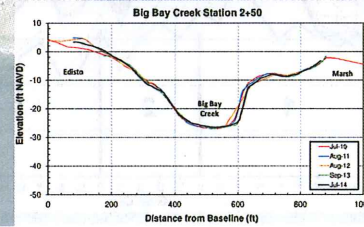
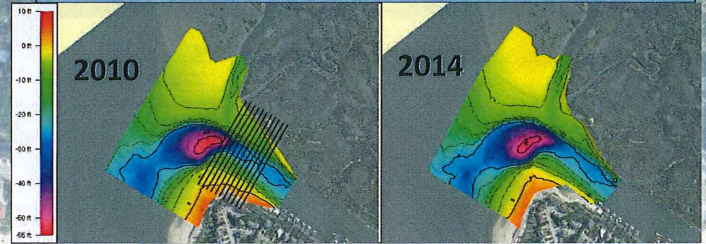
Present Condition



Groin 16



Big Bay Creek



USACE Project

- Dune at +14-15 ft NAVD
- Berm at +7 ft NAVD
- 1,130 ft of groin lengthening
- Initial nourishment and 3 renourishments at 16yr intervals
- Increase of 24 acres of turtle habitat
- ~924,000 cy initial nourishment
- ~476,000 cy renourishment



USACE Planning

Edisto Beach - April 2014

The Edisto Beach Coastal Storm Damage Reduction project successfully completed a Civil Works Review Board (CWRB) with Headquarters USACE and South Atlantic Division on Thursday, March 20, 2014. With this approval, State and Agency Review began on Thursday, April 3, 2014 and will end on Monday, May 5, 2014. The draft proposed Civil's Report and Interim Final Integrated Feasibility Report and Environmental Assessment (with appendices) are provided below:

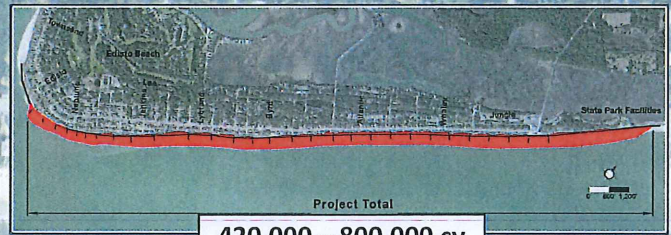
- Draft Proposed Civil's Report
- Interim Final Integrated Feasibility Report and Environmental Assessment
- FONSI
- Appendix A - Coastal Engineering
- Appendix B - Economics
- Appendix C - Structure Inventory Analysis
- Appendix D - Geotechnical Engineering
- Appendix E - Storm Area Impact Analysis
- Appendix F - Biological Assessment
- Appendix G - Essential Fish Habitat
- Appendix H - Habitat Production
- Appendix I - Correspondence
- Appendix J - Harbortown and Cultural Resources Survey Report
- Appendix K - Real Estate Plan
- Appendix L - Civil Engineering
- Appendix M - USFWS Biological Opinion



Proposed Project

- Very similar to USACE plan
- Limited by Town's budget
- Seeks most beneficial combination of nourishment/groin lengthening
- Smaller nourishment volume than the USACE initial project
- Fall/Winter of 2016-2017 schedule
- Seeks up to 1,765 of groin lengthening for up to 26 groins
- The Town does not anticipate fully lengthening all of the groins due to budget constraints
- At minimum, sufficient nourishment will be added to meet trapping capacity of lengthening groins

Proposed Project

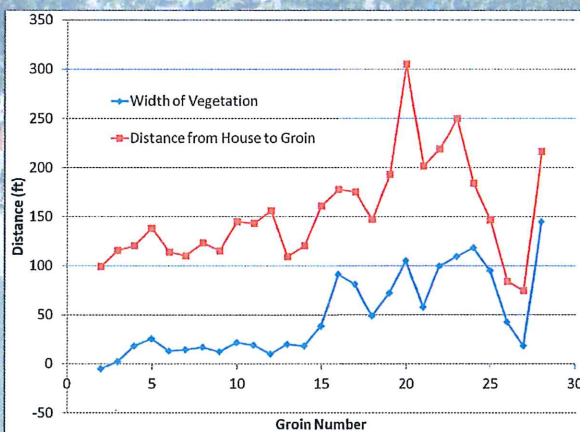


420,000 – 800,000 cy

Nourishment quantity will depend on bid prices for dredging and groin lengthening. For the full groin lengthening scenario, ~420,000 cy is the estimated trapping capacity.

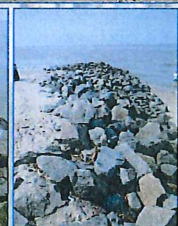


Groin Lengthening



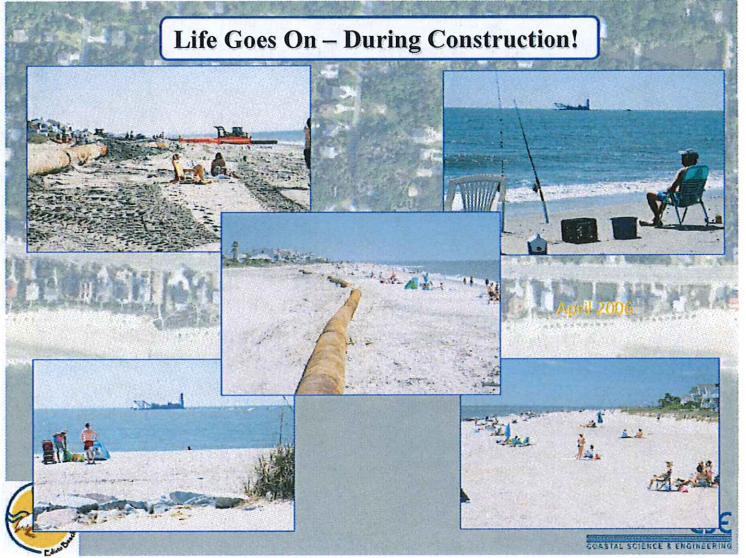
Groin Lengthening/Repair

- In addition to or in absence of lengthening, several groins need repairs
 - Restacking rock
 - Repairing timber
 - Additional grout
- Repairs maintain the structures and adjacent beach

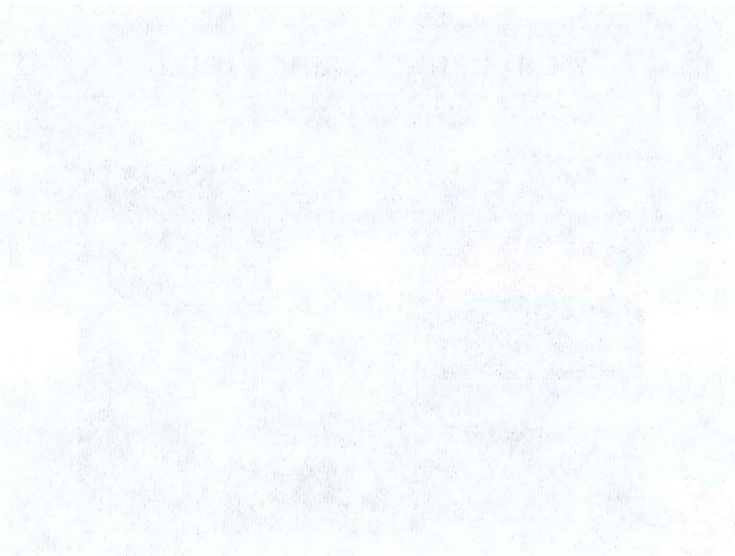


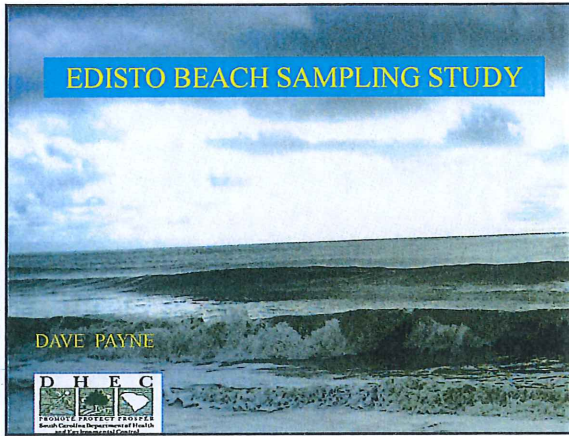


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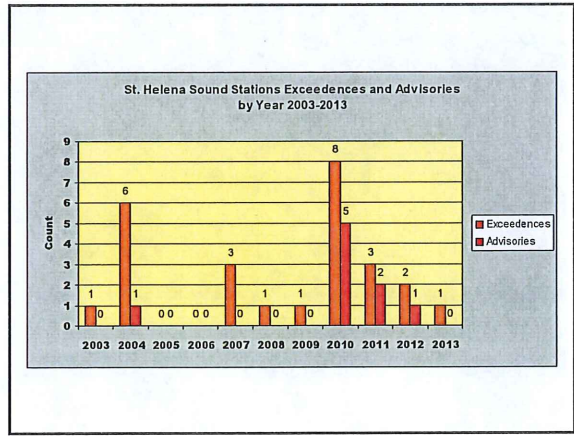


- ### Background
- Fourteen (14) Ocean water monitoring stations on Edisto Beach. Eleven (11) are oceanfront and four(4) – LC-082, LC-081, LC-080A, and LC-080- are riverfront (South Edisto River).
 - Sample twice per month May 1 – Sept 30
 - Enterococcus bacteria – indicator of human or animal fecal waste
 - > 104 CFU/100 ml = Resample (Highlighted in Yellow in report)
 - > 500 CFU/100 ml = Issue Swimming Advisory, Post signs, media release, status on website (Red in report)

- ### Why do a study?
- Summer of 2010 – 8 samples at riverfront stations exceeded standard of 104 CFU/100 ml.
 - Four samples exceeded 500 CFU/100 ml, resulting in Swimming Advisories on August 9 and Sept 27.
 - August 9: results at three consecutive stations (LC-080, 80A, 81) were 521, 3255, and 691. September 27 LC-080A was 644.

Advisory Notification

- Signs posted on the beach



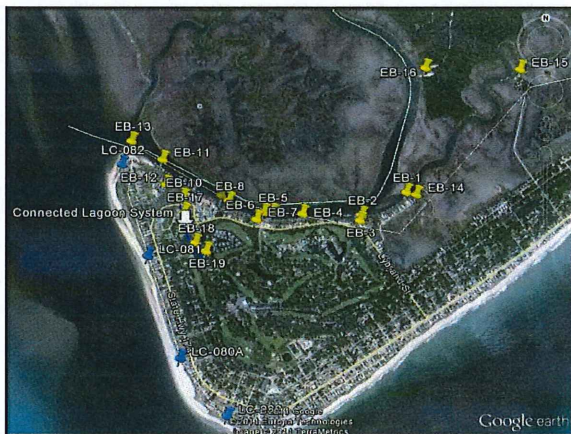
Purpose of Study

- ID sources of enterococcus bacteria
- Re-evaluate current Tier 2 status of beach stations.



Study Design

- Started in 2011 with 13 sample sites. Ended in 2014 with total of 22 sites sampled, including Scott Creek and within lagoon systems.
- Samples collected at study stations on same day as routine beach samples to determine impact on beach stations.
- Sampled on ebb tide



EBISTO BEACH SAMPLING STUDY- Combined Study/Beach Monitoring Stations arranged Upstream to Downstream													
DATE	6/2/11	6/16/11	6/14/11	6/29/11	7/12/11	7/25/11	8/8/11	8/29/11	9/13/11	10/11/11	10/26/11		
RAIN	Day of	0.01	0.00	0.00	0.00	0.01	0.00	0.04	0.02	0.00	0.00	0.16	0.01
48 total	0.91	0.00	0.00	0.00	0.01	0.00	0.04	0.02	0.00	0.00	1.00	0.01	
72 total	0.01	0.00	0.00	0.00	0.27	0.00	1.48	0.02	0.06	0.02	1.28	0.02	
STATION													Avg
EB-16						36	41.5	10	10	10	10	10	18
EB-15						107.0	185	52	31	20	74	177	85
EB-14				15									10
EB-1	10	15	20.5	15	60.5	52	63	28	18	36	223	30	49
EB-2	15	20	10	41	41	63	31	31	10	20	20	10	26
EB-3	20	85	41	43	152	41	98	110	30	52	200	100	318
EB-4	10	10	10	20	74	41	20	20	10	41	41	10	28
EB-5	10	41	31	10	41	10	52	20	10	20	41	41	27
EB-6	10	41	107	115	30	20	41	52	41	100	63	20	100
EB-7	10	10	41	10	86	41	41	97	10	100	150	41	231
EB-8	10	56	100	52	41	20	10	200	41	60	150	31	74
EB-9	10	75	52	52	265	10	63	30	31	41	41	10	67
EB-19						207	135	221	131.3	163	439		
EB-18						150	46.5	240	110	109	332		
EB-17								41	65	66	275	31	104
EB-10	210	270	1170	543	678	210	130	216	313	215	300	323	437
EB-12	52	52	100.5	62	10	63	10	20	10	10	65	20	43
EB-11	20	10	31	20	100	10	31	63	10	74	51	41	39
EB-13			52	31	229	10	30	52	10	226	226	146	104
LC-082	dnc	41	52	10	52	10	25.5	15	20.5	172	20.5	20	63
LC-081	dnc	97	41	10	20	10	20	10	63	313	97	10	61
LC-080A	dnc	134	52	10	10	63	31	62	10	150	63	25.5	59
LC-080	dnc	31	30	10	41	10	30	20	10	73	98	dnc	35
Tide Stage	4100	4200	4200	4200	4300	4300	2100	4100	4000	4100	4100	4200	
Tides	2000-Ebb	4000-Flood											
	2100-1/4 Flood	4100-1/4 Ebb											
	2200-1/2 Flood	4200-1/2 Ebb											
	2300-3/4 Flood	4300-3/4 Ebb											

Edisto Beach Sampling Study - Combined Study/Beach Monitoring Stations arranged Upstream to

DATE	6/4/13	6/18/13	7/16/13	7/30/13	8/14/13	8/28/13	9/9/13	9/17/13	10/15/13
RAIN Day of	0.11	0.29	0.00	0.00	2.12	0.00	Tr	nd	0.00
48 total	0.13	0.37	0.08	0.36	2.14	0.00	Tr	0.00	
72 total	0.14	0.37	1.17	0.36	2.14	0.00	Tr	0.00	
STATION									Ave.
EB-22	5784	18663	487	563	265	539	1842	313	717
EB-21	471	1864	784	563	3155	1230	1231	620	638
EB-20	998	1112	2481	524	569	512	213	420	576
EB-15		41	175	249	149	85	320	369	108
EB-1	97	41	197	100	10	63	52	171	dnc
EB-3	450	24195	63	450	20	98	52	41	52
EB-7	983	2613	41	219	132	246	246	41	52
EB-10	86	278	345	546	913	88	98	213	84
LC-082	dnc	10	15	20	10	15	20	41	25.5
LC-081	dnc	10	20	42	20	10	10	122	41
LC-080A	dnc	10	10	63	10	10	10	30	41
LC-080	dnc	20	10	52	10	20	10	10	30
Tide Stage		4300	2200	2100	2200	2200	4200	4300	4300
Tides	2000-Ebb	4000-Flood							
	2100-1/4Flood	4100-1/4 Ebb							
	2200-1/2 Flood	4200-1/2 Ebb							
	2300-3/4 Flood	4300-3/4 Ebb							

LAGOON SAMPLE DATA

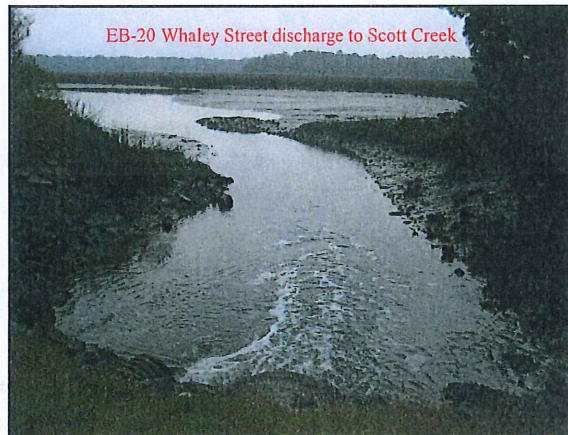
Station	Description	Number of Samples	Ave. CFU/100ml
EB-20	Lagoon discharge at Whaley Street	13	704
EB-3	North Wyndham lagoon discharge	25	1184 / 225*
EB-7	Middle Wyndham lagoon discharge	25	304
EB-17	South Wyndham - 6 th Hole Lagoon	9	118
EB-10	Flashboard river next to marina parking lot	25	340

*Average without >24196 result from 6/18/13.

Edisto Beach Sampling Study - Combined Study/Beach Monitoring Stations arranged Upstream to D

DATE	8/27/14	8/19/14	7/8/14	8/6/2014
RAIN Day of	0.00	0.00	0.00	0.00
48 total	0.13	0.00	0.00	0.00
72 total	0.18	0.38	1.12	0.02
STATION				Ave.
EB-16	20	31	20	41
EB-20	169	145	211	733
EB-15	74	109	74	109
EB-1	20	85	51	119
EB-3	20	52	31	87.3
EB-4	20	20	41	86
EB-7	31	31	20	80.7
EB-9	10	20	10	10
EB-17	31	85	41	384
EB-10	103	148	52	850
EB-11	10	41	10	20
LC-082	20	10	10	10
LC-081	10	20	10	10
LC-080A	10	10	10	10
LC-080	10	10	10	12.5
Tide Stage	4300	4200	4300	4300
Tides	2000-Ebb	4000-Flood		
	2100-1/4Flood	4100-1/4 Ebb		
	2200-1/2 Flood	4200-1/2 Ebb		
	2300-3/4 Flood	4300-3/4 Ebb		

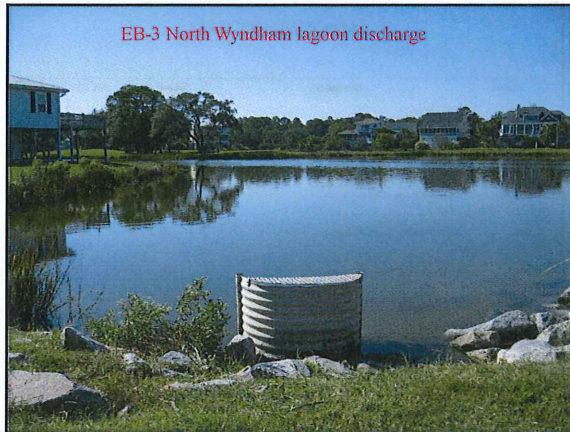
* Note: 8/4/14 3.50" rain; 8/3/14 2.50" rain measured at Edisto Beach WWTP



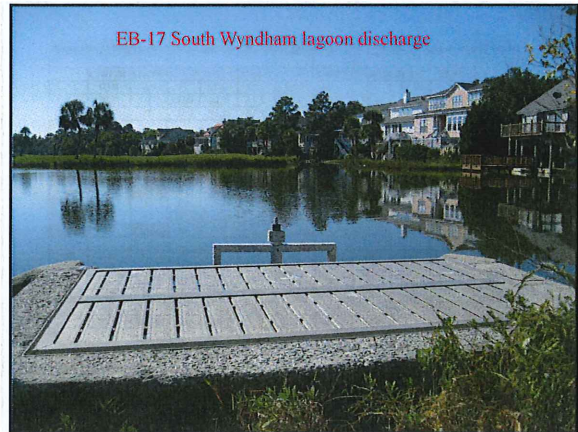
Study Results

- “Hot Spots”
 - EB-20 Whaley Street discharge
 - EB-3 North Lagoon discharge
 - EB-7 Middle Lagoon discharge
 - EB-17 South Lagoon discharge
 - EB-10 pipe at ditch from EB-17

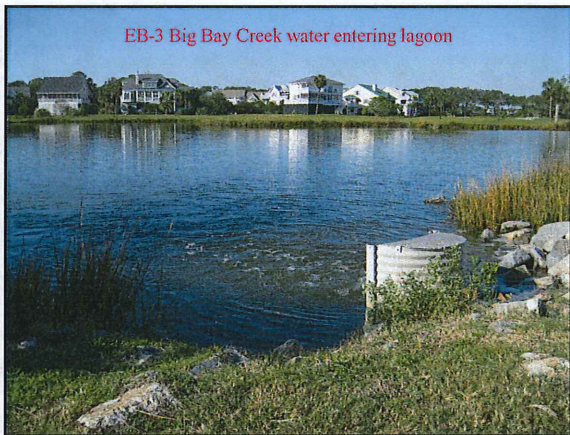




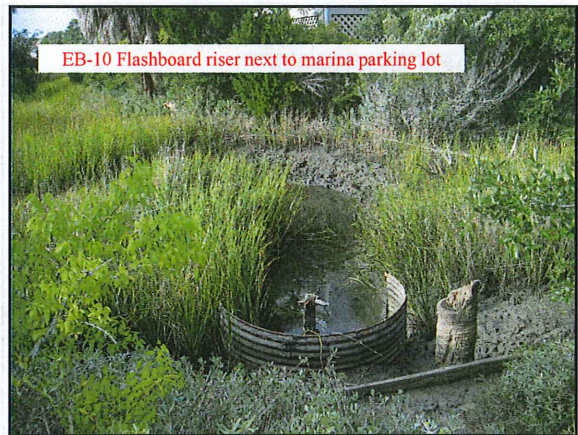
EB-3 North Wyndham lagoon discharge



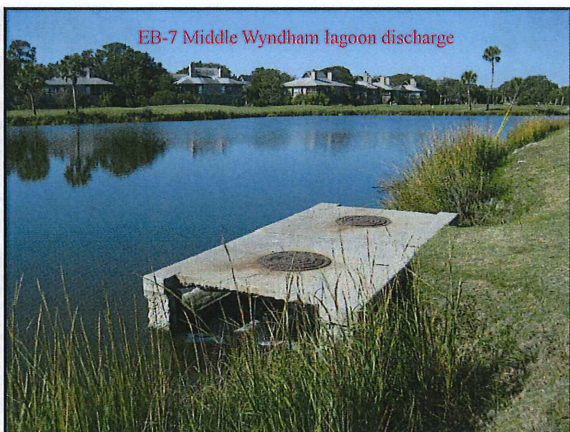
EB-17 South Wyndham lagoon discharge



EB-3 Big Bay Creek water entering lagoon



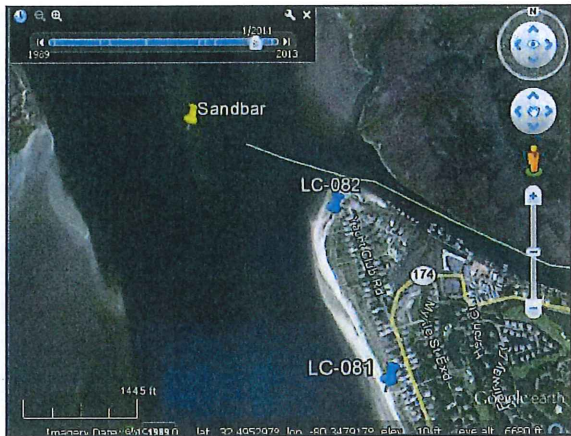
EB-10 Flashboard riser next to marina parking lot



EB-7 Middle Wyndham lagoon discharge

EB-10 Flashboard riser next to marina parking lot

- EB-17 South Wyndham lagoon discharges to ditch to EB-10
- In every sampling event, bacteria levels at EB-10 higher than EB-17, though only 385 feet apart.
- “ T ” in ditch at EB-10 riser pipe, one branch goes to high marsh to lagoon behind Marsh Pointe pool.
- Additional study needed in this area.



Conclusions

- Lagoons were not designed for stormwater treatment.
- Failing septic tanks, sewage leaks, wildlife and domestic animal waste are potential sources of bacteria.
- Infrastructure is old; some pipes undersized; at wrong elevation; filled in with sediment.
- Lagoon banks are overgrown which prevents sunlight from reducing bacteria concentrations.

Conclusions

- Sampling results indicate that bacteria sources entering Scott Creek impact downstream water quality more than those in Big Bay Creek above confluence with Scott Creek (ie. station EB-16 Live Oak Landing).
- Shellfish station 13-01 Scott Creek at shell mound has Restricted harvest classification versus Approved at 13-21 Big Bay Creek at the Neck.

Conclusions

- Sampled inter-connected lagoons in interior lagoon system (EB-20, EB-21, EB-22) and South Wyndham lagoon system (EB-17, EB-18, EB-19).
- In both systems, salinities decrease and bacteria concentrations increase as you go upstream in system.
- Lower salinity water, heavy organic load from leaves, warm water, lack of sunlight allows bacteria to survive.

Conclusions

- Four lagoon system discharges had highest average bacteria concentrations of all sites sampled. Whaley Street two to six times higher than other three lagoon discharges.
- Bacteria concentrations reduced to background levels at next sample station downstream.
- Sample results do not show direct impact of lagoon discharges on beach monitoring stations.

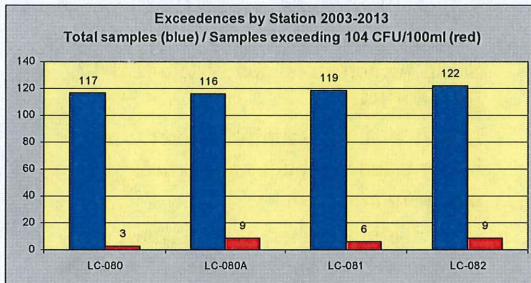


Recommendations

- South Wyndham lagoon discharge pipe has flap gate to limit tidal exchange. Had lowest average bacteria concentration.
- Tidal exchange keeps lagoons full and ready to immediately discharge. Lagoons should fill up after rain events and discharge at controlled rate (water control structures).
- Limiting tidal exchange will increase stormwater detention time, allowing bacteria to die-off and settle out.

Acknowledgements

- Thanks to Town of Edisto Beach and Wyndham Ocean Ridge staff for their assistance with this project.
- Thanks also to Edisto Beach residents who allowed me to sample from their docks.



Recommendations

- Percentage of samples exceeding 104 CFU/100ml is low so maintain Tier 2 status (sample twice per month).
- Work with DHEC OCRM stormwater staff on recommendations for improving lagoon water quality, such as water control structures and water management.
- Sample lagoon discharges and beach stations hourly immediately following significant rainfall events (>2.00")