Beach Preservation Committee
9:00am, Tuesday, April 21, 2026
City Hall Council Chambers
1207 Palm Boulevard, Isle of Palms, SC

MINUTES

1. **Roll Call**

Present: Dietmar Ostermann, Dan Slotchiver, Wendi Pasterik, Alice Bova, John Schilling (via Zoom), Council Member Cohen

Staff Present: Administrator Kerr, Deputy Administrator Kuester

2. **Citizen's Comments** – none

3. **New Business – applying the Beach Preservation Committee's new definition of a "healthy beach" at the 3 trouble spots and calculating required sand volumes for the upcoming renourishment project**

The recommendations and supporting calculations and documents referenced in the meeting are attached to these minutes.

Ms. Pasterik reviewed the recommendations and detailed the calculations leading to their recommendations. The Committee would like the City to increase the planned renourishment project by 546,000 cubic yards above the 2.5 million permit maximum, adding $4.1 million to the cost of the project. Committee members believe that the lower-than-anticipated price of the project is an opportunity the City should take to provide a better protective barrier for the island. They would also like the City to adopt their new definition of a "healthy beach."

Discussion ensued about why the Committee would dismiss the erosion rate used by the engineers. Council Member Cohen said that while he agrees their healthy beach definition is a good goal to move towards, he would likely vote against their recommendations since the City may need to raise taxes for the project maximum. He asked if it would be better to lay more sand or to put money towards sand retention methods to hold the project longer.

Administrator Kerr asked why the Committee wants to offer these suggestions without any professional input or expertise, especially in light of the fact that the Foth/Olsen alternatives analysis is due next month. Mr. Ostermann said City Council needs to hear that more sand on the beach is better in the long run.

Administrator Kerr cautioned the use of a 5-year erosion rate: “But I think if this group locks themselves into a 5-year rate, you then, when that window, 2022, which was an awful year, drops out of that window, you then have a window of five years that has Army Corps sand coming into it, that has massive shoals naturally coming into it. You use that window, I think you are going to end up with a calculation that says oh, by your definition, it is now largely accretional.”

Ms. Pasterick said she pulled wording directly from permit applications for Hilton Head and used their definition of a healthy beach as a basis for the calculations.

Council Member Cohen said he believes using a favorable baseline that protects yards and pools is problematic. He does not believe adding additional taxpayer funds for that level of protection is going to be popular with the public since that is not area they can use.

Mr. Ostermann said the majority of the extra sand they are recommending at the south end where the erosion rate is worse than stated. Ms. Pasterick expressed concern about affecting the tourism that is the economic engine of the island.

Mr. Traynum responded, “I agree with what David said on there are a lot of ways you can go about approaching this with looking at the deficits and where these lines are. I disagree that, I don’t know that 200’ up and down the island makes sense in some areas where you are basically shifting what the minimum healthy beach would be in some areas to a condition that has never even been in before, to a healthier condition which would be your trigger to implement a project. I think that is a little too aggressive. But, at the end of the day, and we submitted a letter to Council recommend some additional yardage, is we can look at all these time periods and erosion rates and windows, and you come at it from different assumptions. You want to put as much sand as you can when you have a price like this. It buys you more time between projects. It [INAUDIBLE] some uncertainty, and there are many multiple ways you could go about doing that as well.”

He continued, “I disagree that, you look at the beach condition, I do not know if you are looking at predicted tides or actual water levels, but we have had four tides in a row above 7 feet, about 7.3 feet actually measured. So it was a weather event that created a tide that gets up to a dune. It does not matter how healthy your beach is, if you have a weather event like that, the water is going to get up to the toe of the dune. You are not going to have a dry sand beach. I do not think that is a good way of measuring the overall health of a beach is just by going out there on any given day and looking at how much dry sand you have.”

He said, “We have not put anything to this committee I would be considering any kind of final recommendation. Some of these scenarios we ran through as examples were not polished recommendations that included all the nuance that goes into them. I hesitate to put some of those numbers before Council on deficits because they were scenarios and not recommendations from us. But again, at the end of the day, we do want to try to get as much sand out on the beach to extend the life of the project, to maintain the recreational and tourism value. That is what our

company has been trying to do for 40 years. I do not agree at all with the idea that just by setting your standard at the structure line that that means that you are letting the water get back to the structures. It is just a measurement reference point. It is not saying that is what we would allow a beach to get back to."

Ms. Pasterik said the beach is "barely surviving" recent weather events. She believes there is a mismatch between "the current deficit and the reality."

Regarding the erosion rate, Mr. Traynum said it is very hard to pinpoint exactly when the severe erosion on the south end happened. He said, "That type of quick sudden change is not typically indicative of, that is not the right word, that does not typically mean that there has been some fundamental, long-term, like sea level change or sediment supply change. That is more of a something happened in that inlet, and we could point to a new channel opening up that is a little closer to the Isle of Palms than it was in past channel openings that would go closer to Sullivan's. That is really the only physical change that would, a value that would try to link some cause and effect. It is very difficult to know precisely what triggered that two-year period other than pointing and kind of trying to make some not obvious links. Nothing happened in the waterway that was significant. Nothing happened in weather patterns that were deeply significant. So that is what we have to point to. But then it does make sense, you can look at all the history in the past, and I have argued this with the State when they are looking at setback lines, you do not use all the available data that you have. You use the best data that predicts what is going to happen in the future. That is what you want to base your policy on."

He continued, "Looking at a more recent erosion rate makes sense. I think the 5-year rate from 2018 to 2025, before the Corps project was about 75,000 yards per year which included those two to three really bad years. I think that is a reasonable number to look at. I do not think it is 100,000 yards per year looking into the future with what we are seeing coming from the upcoast area. We are seeing a lot of accretion in Reaches 3, 4 that we are seeing move through the pier. So I am optimistic that some of that sand is going to stabilize the area. So we are trying to consider these long-term, larger-scale changes. But I am not suggesting that going back to 2009 and ignoring the recent increase that we have seen is the way to go either. You want to consider the benefits of costs of what you are doing." He added that it is important to balance the financial reality with the predictions.

Administrator Kerr asked if the project is done as planned, would the project meet the Committee's new minimum healthy beach at the end of the project. Mr. Traynum said the project will fulfill their definition of a minimum healthy beach but "without all the advance fill." Mr. Traynum also said there is no guarantee that more sand will stay longer.

MOTION: Ms. Pasterik made a motion to recommend to City Council the placement of 352,000 additional cubic yards of sand on the south end of the island and the placement of 194,000 additional cubic yards of sand within Wild Dunes for a total of 546,000 additional cubic yards of sand at the approximate cost of $4.1 million in the upcoming beach

renourishment project. Mr. Slotchiver seconded the motion. The motion passed unanimously.

Mr. Ostermann will give City Council a brief presentation about the Committee's recommendation at their April 28 meeting.

4. **Miscellaneous Business**

The next meeting will include an update from Foth/Olsen.

5. **Adjournment**

The next meeting of the Beach Preservation Committee will be on Thursday, May 7, 2026 at 9am.

The meeting was adjourned at 10:08am.

Respectfully submitted,

Nicole DeNeane
City Clerk

Recommendation to IOP City Council

1. Adopt new “healthy beach” definition
   - 200 feet of dry sand at highest tide
   - Measured from 2018 SCDES baseline or structure line (houses and pools), whichever is most seaward
   - Using the most recent 5-year erosion rates

2. Increase the planned renourishment project volume to 3MM cubic yards
   - Applying that new definition to the 3 critical IOP beach hot spots requires 546,000 more cubic yards than the 2.5MM permit max.
   - Sand will never be as inexpensive as now
   - This will cost the city/Wild Dunes an extra $4.1MM

Healthy Beach Goals

Minimize damage in a level 3 hurricane; ensure a recreational beach at all tides and seasons, and protect private property and structures.

Feature	Current Method (cy structure to closure)	New Method (200 feet of beach)
Primary Goal	Protect the house foundation	Protect the entire beach and property line
Tourism Risk of Decline	High; leads to “beach-less’ shores. Loss of tourism revenue	Low; maintains wide, attractive beaches
Risk of Property Values	Erosion leads to property value decline and flood insurance issues	Protects entire island residential property valued at $6.5 billion
Storm Buffer	Fails under extreme pressure	Minimize structural damage
Private Assets	Pools and yards often lost	Homes, pools, and land are shielded
Emergency Funds	~$4MM+ spending on emergency measures	Reduced emergency spending

Healthy Beach – *Defined in terms we understand and can 'see'*

- **Beachline**: SCDES 2018 baseline or structure line (houses and pools), whichever is most seaward
- **Healthy Beach Definition**: 200 feet from Beachline to Mean Highest High Water Line (MHHW)*
- **Renourishment Placement**: Sand placement will focus on areas of need, defined as those areas where:
  - There is a sand volume deficit currently, using Healthy Beach Definition, or
  - Where the protective healthy beach width is proposed to be less than 200 feet at the end of the project life
  - And the MWWH line* is experiencing erosion

**** Consider Arial photography method to overlay the wet line, taken in November and April at higher tide period, similar to Hilton Head practice.***

Renourishment Volumes

- Renourishment Volume = [Current Deficit] + [Advanced Fill] – [Current Excess]
  - Current Deficit: cubic yards of sanded needed to establish 200 feet between Beachline and MHHW line.
  - Advanced Fill: forecast erosion rate (using last 5 years) * project life (currently using 8 years)
  - Current Excess: Excess between current MHHW line and MHHW line if only 200’ from Beachline

Renourishment Volume Recommendation

- Minimum: use permit **max** for **each** of the 3 permitted reaches
- Recommended: additional 546,000 cubic yards (+$4.1MM) using new healthy beach definition:
  - South end: +352,000 cy ($2.6MM)
    - Larger deficit using new definition
    - 5 year erosion rate thru Feb 2025 (89k cy/yr)
  - North end: + 194,000 cy ($1.5 MM)
    - Larger deficit using new definition
    - 2018-2026 rate for advance fill numbers (150k cy/ft)
- Smooth out / extend Beachwood East area renourishment to 53rd Ave to create usable beach.
- Any future changes to volume or locations require town council approval

Permit Vs. Healthy Beach, cubic yards

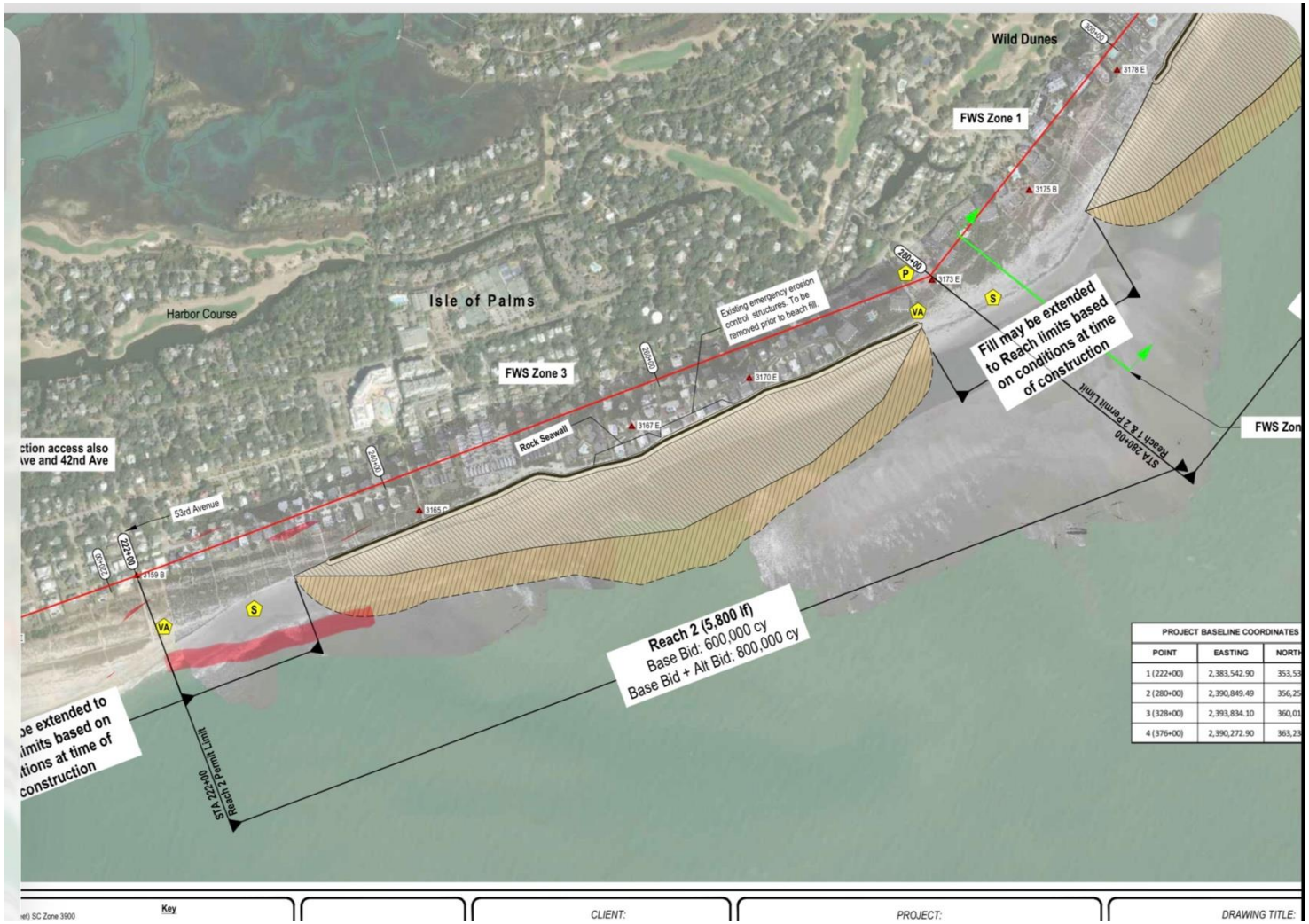
	Permit Maximum Case	Recommended Using Healthy Beach Definition	Comments
Wild Dunes	1,700,000	1,894,000	+194,000 ($1.5 MM) Smooth out placement thru to 53rd Ave.
South End	800,000	1,152,000	+352,000 ($2.6MM)
Total	2,500,000	3,047,000	+546,000 ($4.1MM)

Smooth out Beachwood East Reach Renourishment

Recommend extending renourishment to limit line to 53rd Ave.

Was erosional from shoal attachment

Establishes usable beach in interim until sand from north attaches.



Risk Analysis

- If south end high recent erosion continues (2022-2024 period), an additional 376,000 cubic yards ($2.8MM) would be needed over recommended volumes
  - 136k/yr erosion versus 89k/year 5 year rate assumed
  - If only max permit is placed and high erosion case occurs, the 800,000 cubic yards would erode in 5 1/2 years
  - Start groin analysis ASAP

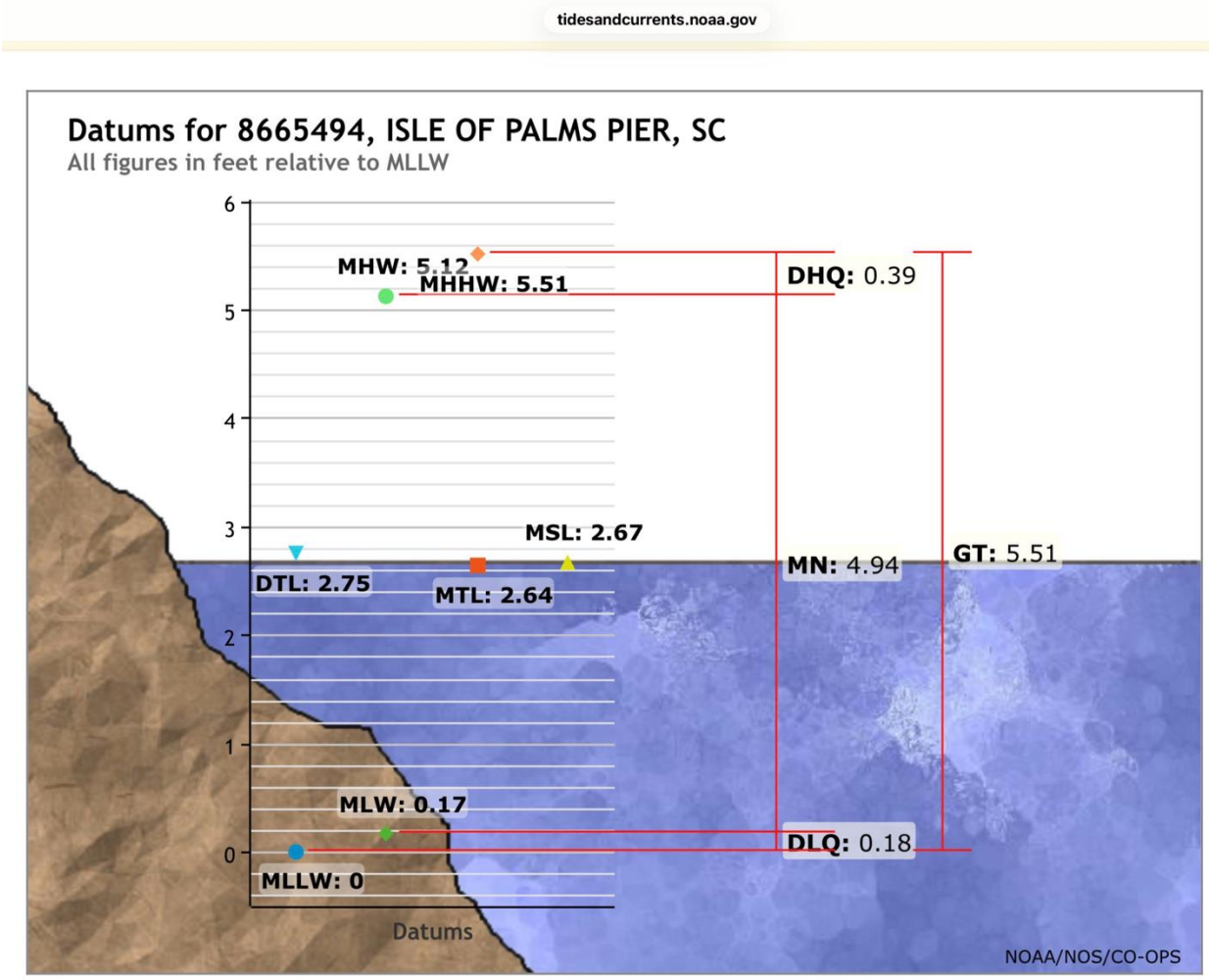
- Army Corp beneficial use volume of 300,000 is fine and known to erode faster. Recommend sand quality testing to inform erosion rate.

- Shoal attachment doesn’t occur

- Renourishment volume at far end near breach inlet may erode quickly
  - Spread out healthy beach volume consistent with bid drawing vs. add more sand on the end
  - Start groin analysis ASAP

Future monitoring: MHHW – mean highest high water; the higher of the two tides in a day

- Measure in November and April
  - Allow immediate feedback on hurricane season losses
- Capture MHHW ‘wet line’ on a ~5.5 foot tide day via arial photography*
- Memo: October 2025 severe erosion had tide of 6.8 feet



*Seek expert second opinion on monitoring methodology

Pre-read Materials

Deficit Cases, Per CSE:	SCDES Baseline	Structure Line	Management Line	Higher of SCDES Baseline or Structure
Reach 1	(326,109)	(87,849)	(326,109)	**(326,109)**
Reach 2	(114,116)	(18,329)	(330,681)	**(114,116)**
Reach 3	(39,585)	-	(374,495)	**(39,585)**
Reach 4	-	-	(806,469)	
Reach 5	(42,076)	(156,077)	(479,764)	**(156,077)**
Reach 6	(228,308)	(120,334)	(428,343)	**(228,308)**
Total Deficit	(750,194)	(382,589)	(2,745,861)	**(864,195)**

Deficits:	Deficit: Higher of SCDES Baseline or Structure
South	(440,225)
North	(384,385)
Total Deficit	(824,610)

Advance Fill	Adv. Fill (recent erosion)
South	712,000
North	1,600,000
Total	2,312,000

Future Excess: CSE Shoal Spread on North	(90,000)

Renourishment:	Healthy Beach Renourishment	Permit Max	Difference	Extra Cost - $MM
South	**1,152,225**	800,000	352,225	**2.6**
North	**1,894,385**	1,700,000	194,385	**1.5**
Total Renourishment	**3,046,610**	2,500,000	546,610	**4.1**

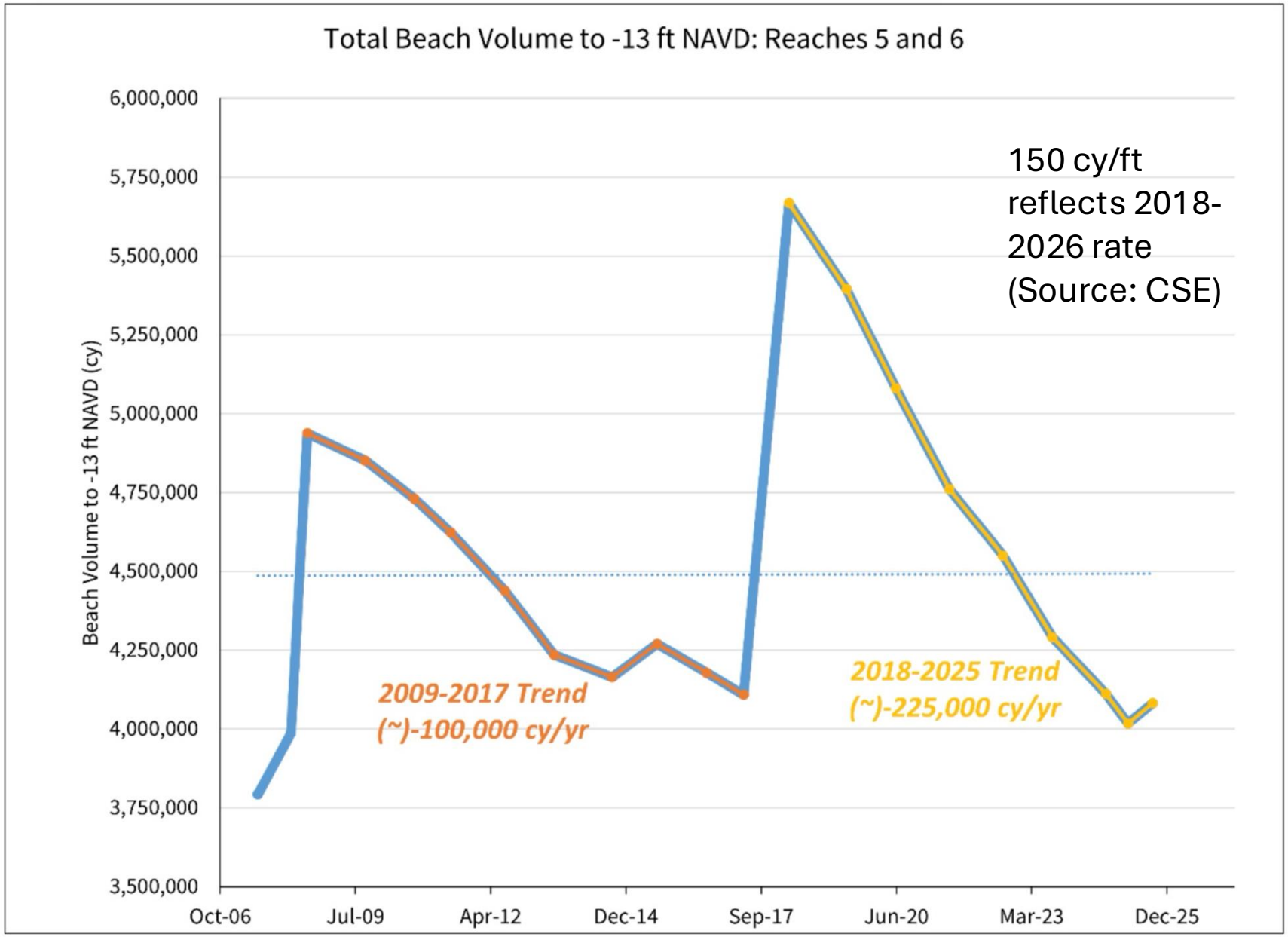
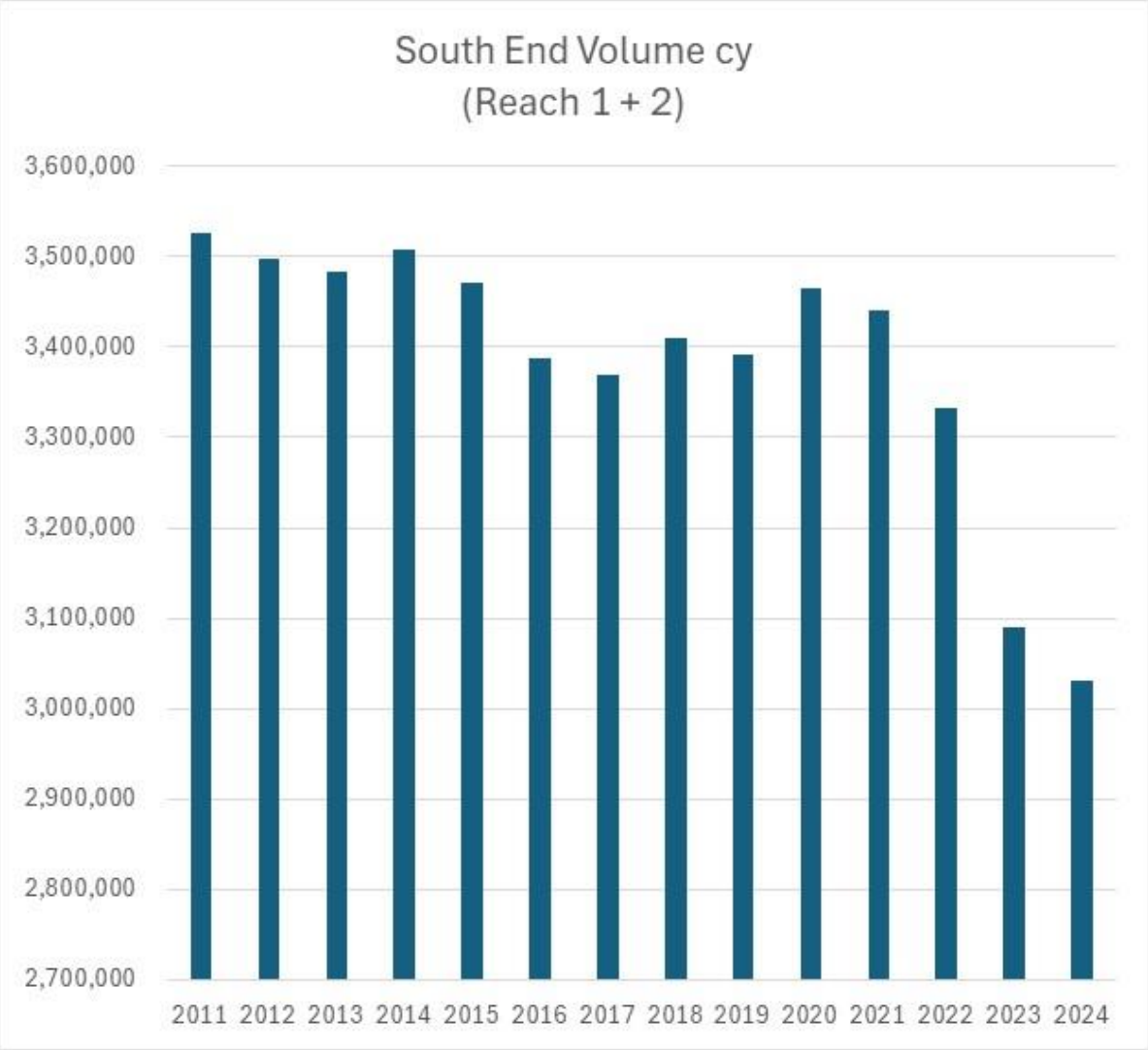


FIGURE 4.17. Total beach volume history of the eastern end of the island since 2007. The graph illustrates the overall erosional trend along Reaches 5 and 6 between nourishment projects.

South End Erosion

Long term erosion less relevant as future trend of sand loss expected, per second opinions



Erosion Rates:
30k/year: Long term erosion
56k/year: Since 2018
70k/year: Permit assumption by CSE
89k/year: 5 year erosion rate (thru 2/25)
136k/year: High erosion period recently (2022-2024)

Advanced fill ranges:
240,000 (30k/yr)
448,000 (56k/yr)
560,000 (70k/yr)
712,000 (89k/yr)
1,088,000 (136k/yr)

Healthy Beach Deficits using higher of SCDES Baseline or Structure Line

Island Deficit Volume	
Management Line (cy)	
Reach 1	-326,109
Reach 2	-330,681
Reach 3	-374,495
Reach 4	-806,469
Reach 5	-479,764
Reach 6	-428,343
Total	**-2,745,861**
SCDES-BCM Line (cy)	
Reach 1	-326,109
Reach 2	-114,116
Reach 3	-39,595
Reach 4	0
Reach 5	-42,076
Reach 6	-228,308
Total	**-750,204**
Structure Line (cy)	
Reach 1	-87,849
Reach 2	-18,329
Reach 3	0
Reach 4	0
Reach 5	-156,077
Reach 6	-120,334
Total	**-382,588**

East-End Deficit Volume	
Management Line (cy)	
Reach 5a	-233,766
Reach 5b	-126,652
Reach 5c	-119,345
Reach 6a	-1,303
Reach 6b	-157,913
Reach 6c	-269,127
Total	**-908,107**
SCDES-BCM Line (cy)	
Reach 5a	0
Reach 5b	-11,570
Reach 5c	-30,506
Reach 6a	0
Reach 6b	-45,413
Reach 6c	-182,894
Total	**-270,384**
Structure Line (cy)	
Reach 5a	0
Reach 5b	-56,334
Reach 5c	-99,743
Reach 6a	0
Reach 6b	-43,011
Reach 6c	-77,323
Total	**-276,411**

Healthy Beach = 200’ from “BCM” Red Dash

Healthy Beach = 200’ from “BCM” Red Dash

Healthy Beach = 200’ from “BCM” Red Dash or Blue Structure, whichever is most seaward

Healthy Beach = 200’ from “BCM” Red Dash or Blue Structure, whichever is most seaward

South Beach measurements March 21 (5.8’ tide)

Location	Beach: Toe of Dune to Wet Line	Beach if put dune back	Comments
104 Ocean	Zero	Zero	Will lose property at higher tide
100’s (Sand bag area)	Almost zero	Zero	Need dunes re-established. Keep sand bags for 6’ tides in April
2nd Ave	46 feet	26 feet	No dunes. Sandbags. Have lost private property
3rd Ave	83 feet	63 feet	Insufficient dunes.
6th Ave *	50 feet	35 feet	Insufficient dunes
7th Ave. *	70 feet	50 feet	Insufficient dunes
Grand Pavillion (March 14)	Over 200’ but can see it has eroded recently		
Wild Dunes hot spots	Zero	Zero	Ocean club; Beachwood east

Emergency cost avoidance ~ $4MM+

Cost - $	Comment
300,000	Beachwood east sand scraping
250,000	Sandbags for south end
unknown	Collins Engineering dune restoration, 100 -314 Ocean Blvd
1,250,000	Sand scraping south end
322,000	CSE emergency management oversight
200,000	Sandbags Beachwood East
800,000	Shoal management, Ocean Club, Seascape, Beachwood East
Unknown	Private resident spend: extra sand bagging, dune restoration due to Army Corp delays (~10 families), pool repair costs, vegetation install
$3,122,000-4,000,000	Total