

REVIEW OF FT. MYERS BEACH NOURISHMENT PROJECT

Review Summary and Recommendations

July 9, 2007



Scope of Work

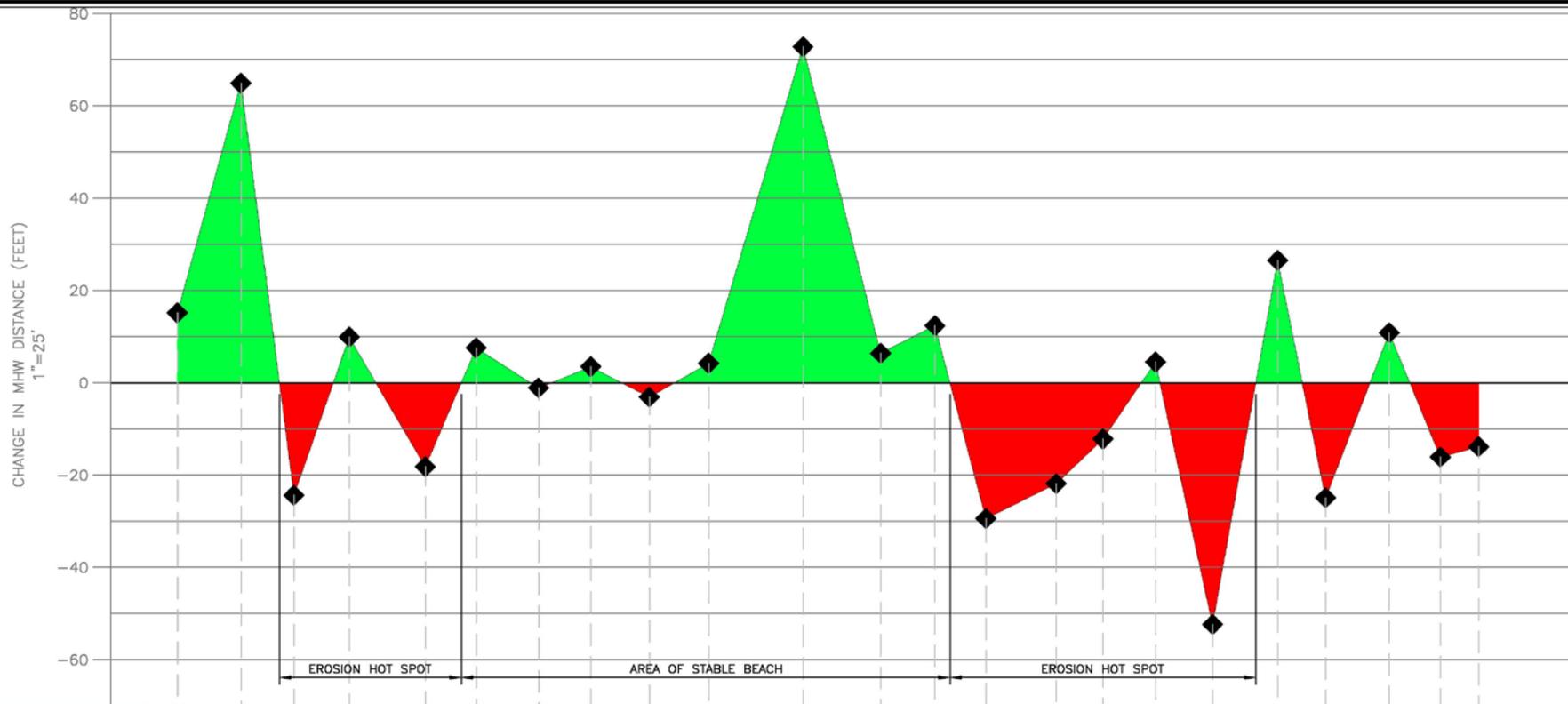
- Review USACE/Lee County Nourishment Plan
- Address Town's Questions
- Provide Opinion Regarding Plan
- Provide Recommendations and Path Forward

1. Is the Plan sufficient to nourish the beach areas suffering from erosion so that these areas will not revert to their current state for approximately 8 years?

- Yes
- Plan -
 - Maintain a min. beach 40' wider than 2000 shoreline (39' wider than present)
 - Increase Beach Area 22 Acres
 - Includes Terminal Jetty

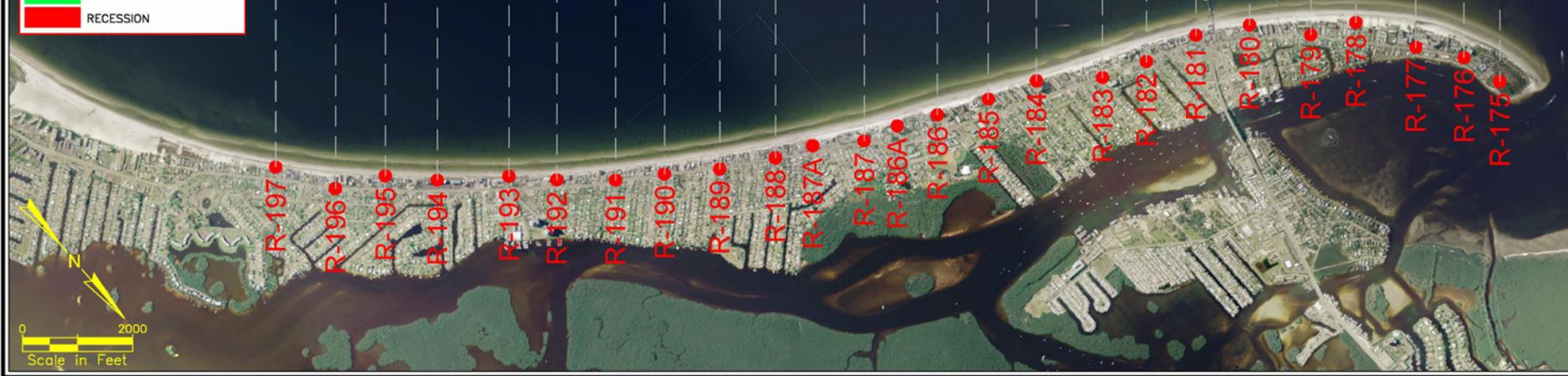
2. What areas, if any, are stable or have accreted over time and are receiving nourishment?

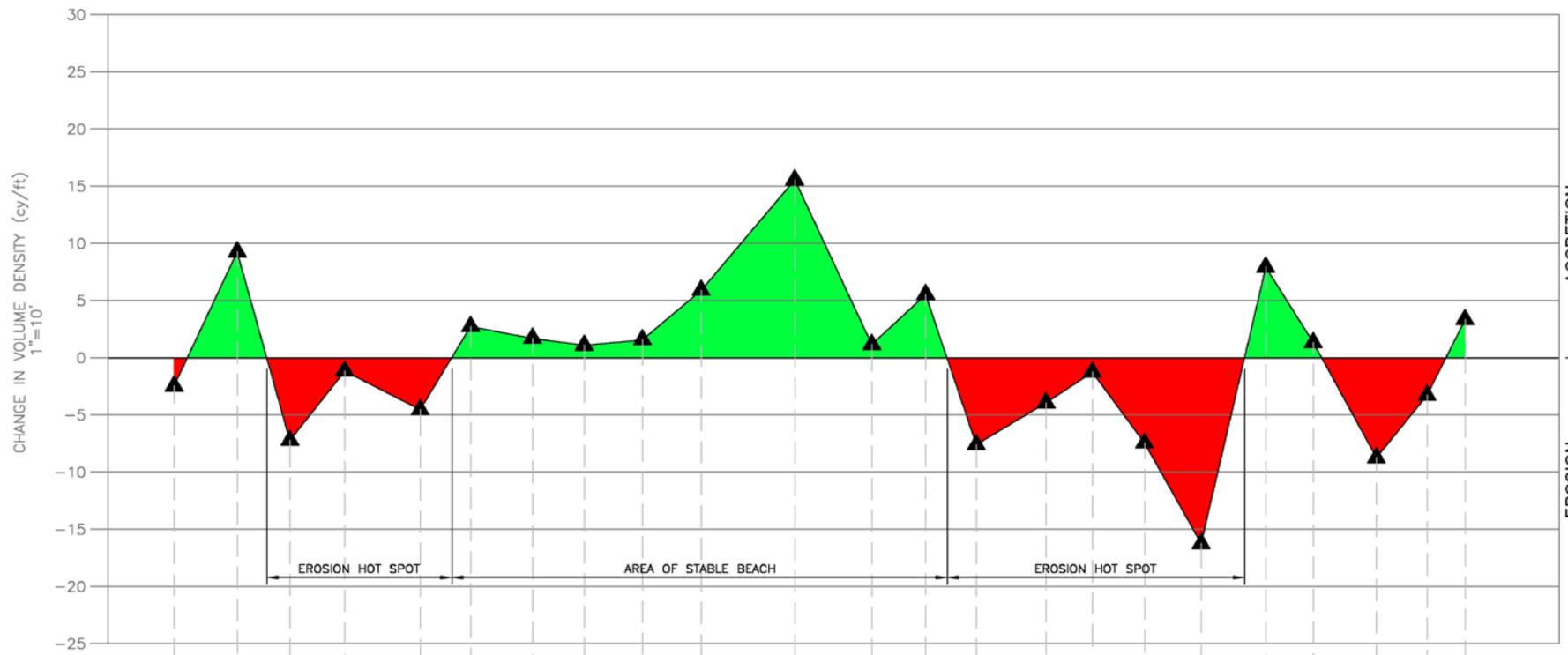
- Between 2000-2005 the Project area has gained an average of 0.92 feet of shoreline
- The Project Area has gained ~2,000 cubic yards (above MLW)
- The Project Area has gained ~270,000 cubic yards in total, with most of the gains in the nearshore
- On the Whole this data suggests that the beach is in general more stable than projected within the Federal Plan.



LEGEND

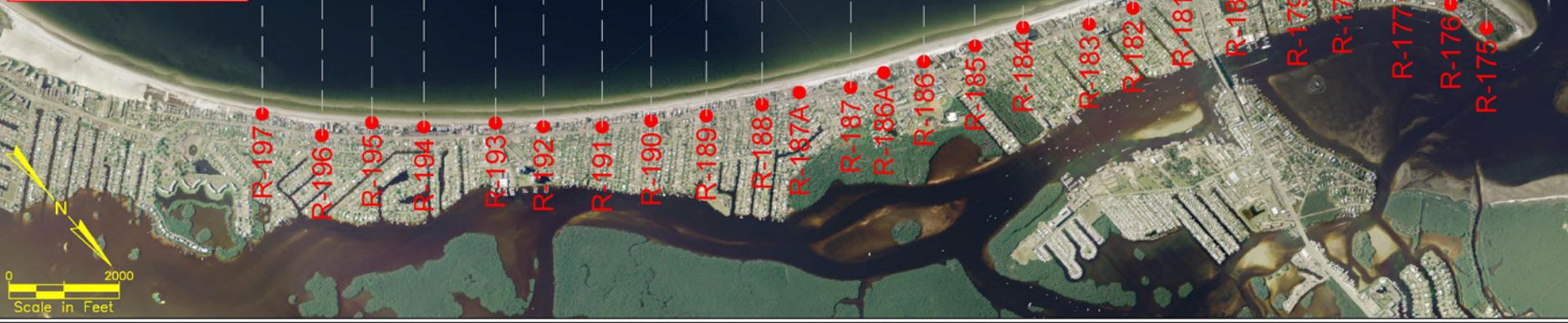
- ◆ CHANGE IN MHW (Feet)
- ADVANCE
- RECESSION

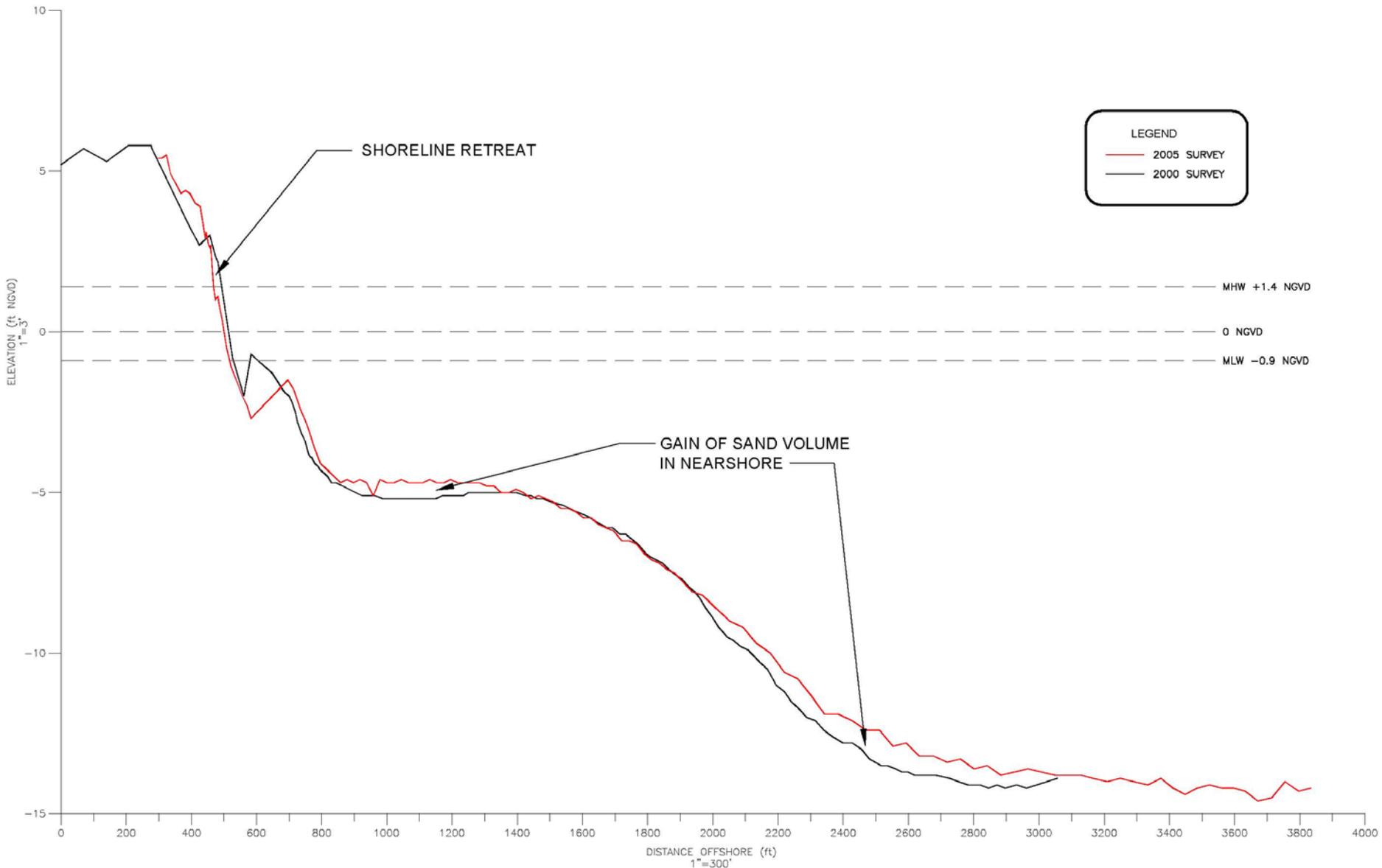




LEGEND

- ▲ CHANGE IN VOLUME DENSITY ABOVE MLW (cy/ft)
- ACCRETION
- EROSION





MONUMENT 178

3. *Are there modifications and/or betterments that would stabilize or nourish beach areas subject to erosion that require more sand than the Plan calls for or have not been included in the Plan?*

- New areas can be added to the plan, though these would not be cost shared. Beach erosion data from 2000-2005 suggests that increases in sand are not warranted to meet the project goals.

4. *Are there financially and technically feasible alternatives to the USACE/Lee County Plan?*

- The Plan provides the most financially advantageous alternative due to Fed/State cost share
- Alternatives within the framework of the Federally Authorized Plan are feasible

5. *Is it financially, technically and logistically feasible to transport sand from Town dredging projects to renourish areas of the beach?*

- Yes, but there are issues with Incremental Cost and this alternative would not fully meet the goals of the existing Plan
- Erosion Need (~20k cu yds / year) Annual Volume from Dredging (~10-15k cu yds / year)
- Net Cost Benefit
- Terminal Jetty should reduce dredging need

6. *Is there the financial and technical ability to change the Corps of Engineers' and County's Plan to renourish new areas if necessary, and not renourish areas that have accreted or are stable, using new and existing erosion data?*

- New areas can be added, but would not be Federally cost-shared. These may be State cost-shared if there is public access.
- As long as the intent of the plan is met, the project can be scaled back.

Recommendations

- Reduce 'Advance' fill component between R-192 and R-185; (52,000 cubic yards)
- Taper North End 'Advance' fill (16,000 cubic yards)
- Eliminate 'Overfill' component (56,000 cubic yards)
- Total Reduction: 124,000 cubic yards (~12% fill reduction)
- In 2000 numbers: ~\$650,000

Recommendations

- Reductions are consistent with current plan and project permits

Additional Issues

- Coordination with County
- Beach Easements
- Turtle Issues
- Construction Window
- Optional Dune Construction

Questions...

