

BMA Physical Monitoring and Adaptive Management

***2021 FSBPA Annual Conference
September 16, 2021***

Delray Beach, FL

Physical Monitoring

- ▶ BMA - Lake Worth Inlet to South Lake Worth Inlet (approx. 15 miles)
- ▶ Sub-divided into 11 Reaches (areas)
- ▶ Annual monitoring is limited to the northern 8 Reaches (Approximately 12.2 miles)

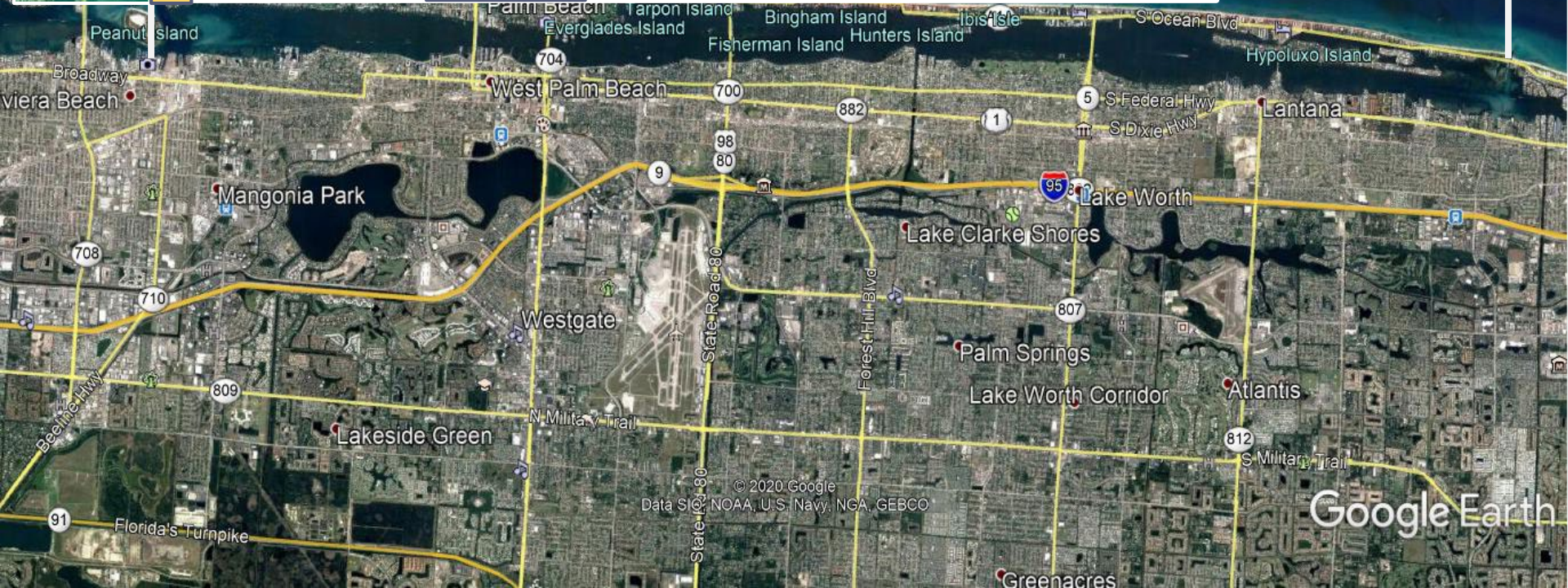
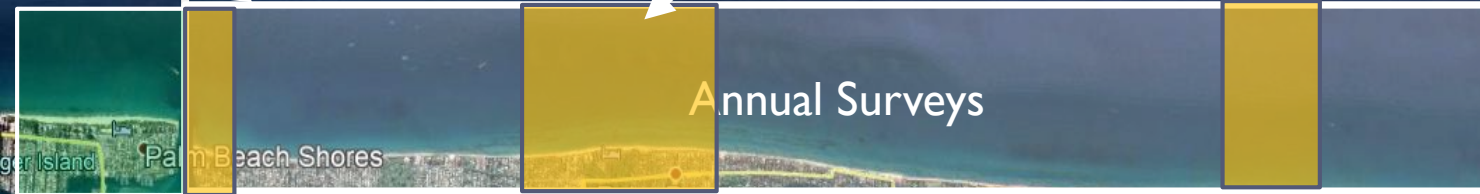
Updrift Surveys

Bypassing / Nourishment Areas

Lake Worth Inlet

South Lake Worth Inlet

Annual Surveys



BMA Nourishment (2014-2021)

Summary of Volumetric Placement Under the BMA (CY)

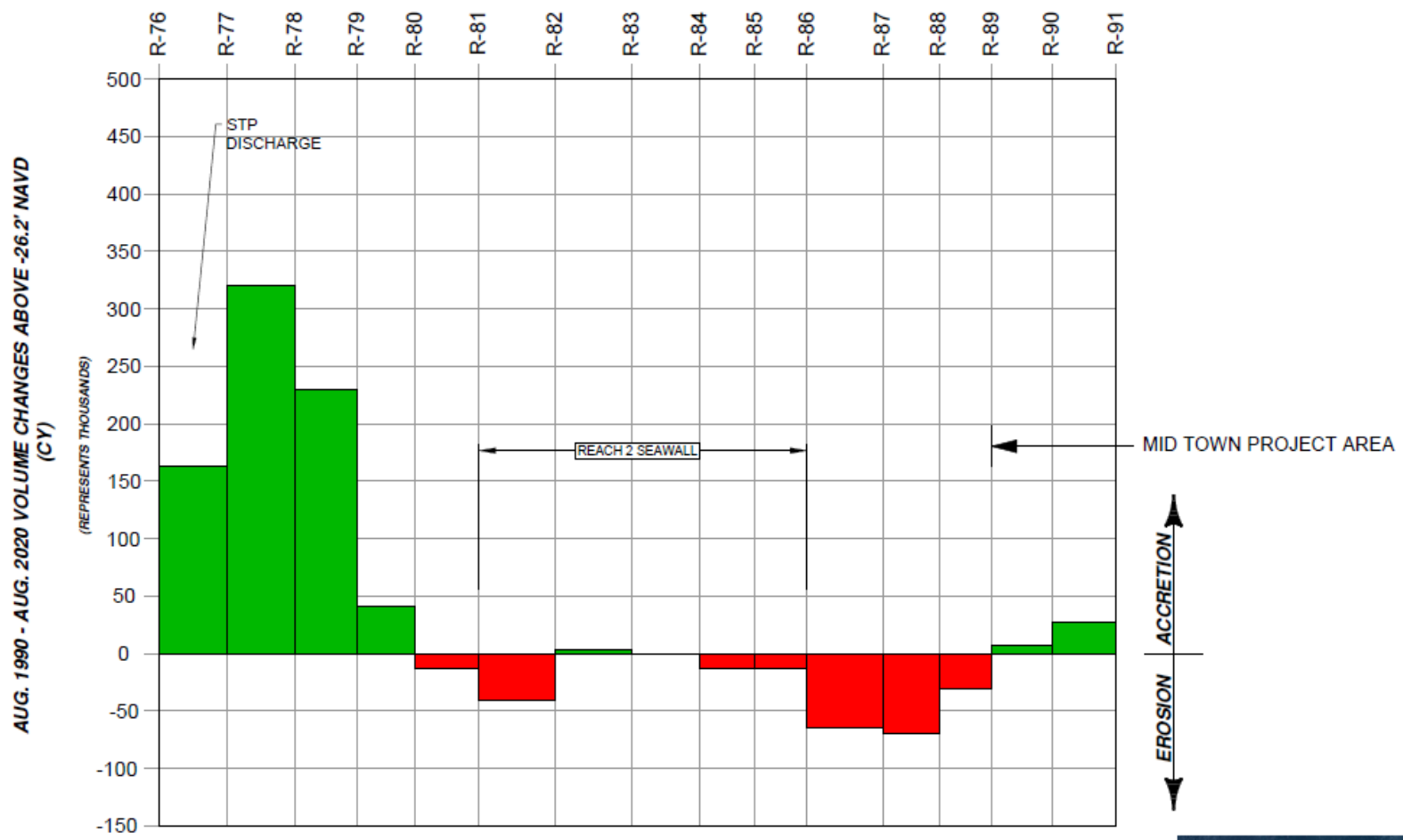
Reach 1	452,739
Mid-Town	1,758,543
Phipps	1,586,045
Reach 8	74,163
Reach 9	20,000
TOTAL	3,891,490

Sediment Budget

- ▶ Since 1990, net gain of ~ 4.0 million CY (~60% of total nourishment placed remaining)
- ▶ Equivalent Volume Densities:
 - 2014-2020: +24 CY/Ft.
 - 1990-2020: +60/CY/Ft.

Gains are not evenly distributed

FDEP PROFILES



NOTES: 1. DATE OF AERIAL PHOTOGRAPHY IS JANUARY 2020.



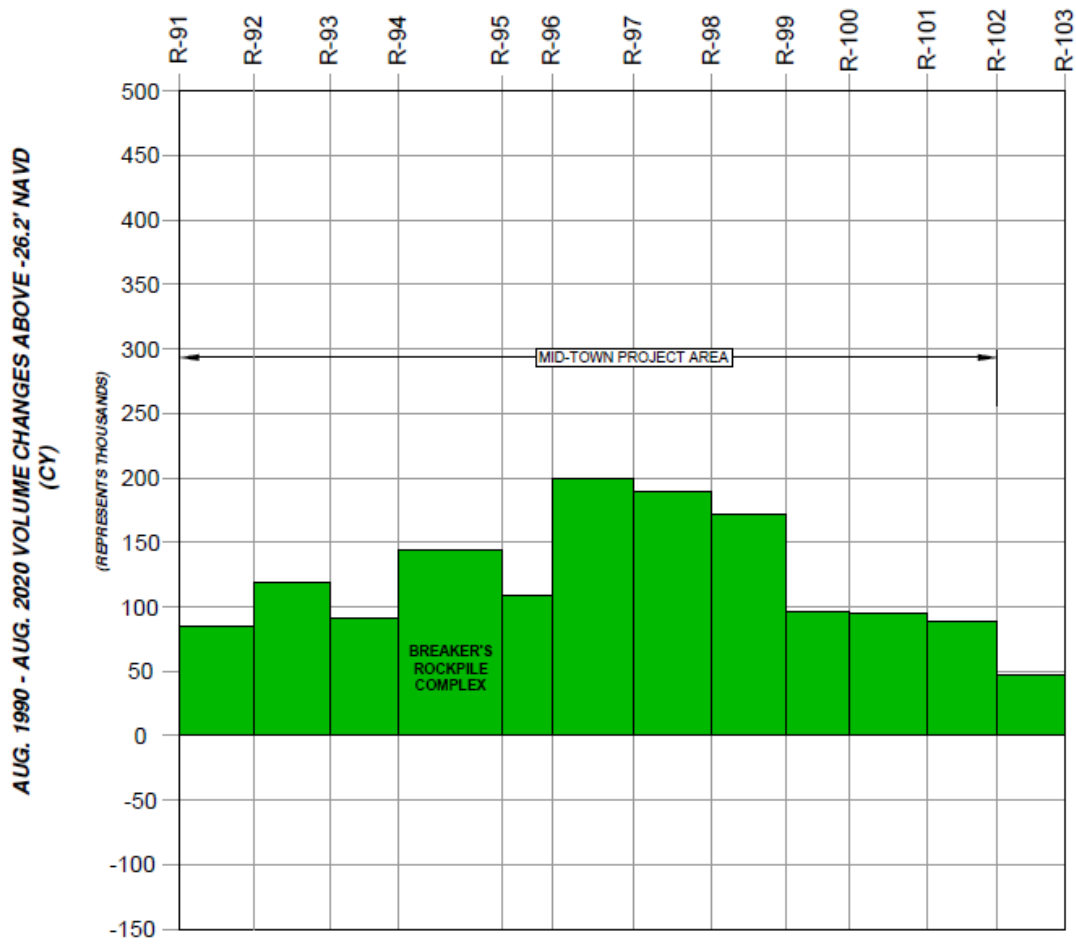
Reach 2

Wave Shadow Zone

Nearshore Hardbottom



FDEP PROFILES



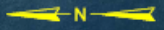
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REACH 2

REACH 3

REACH 4

REACH 5



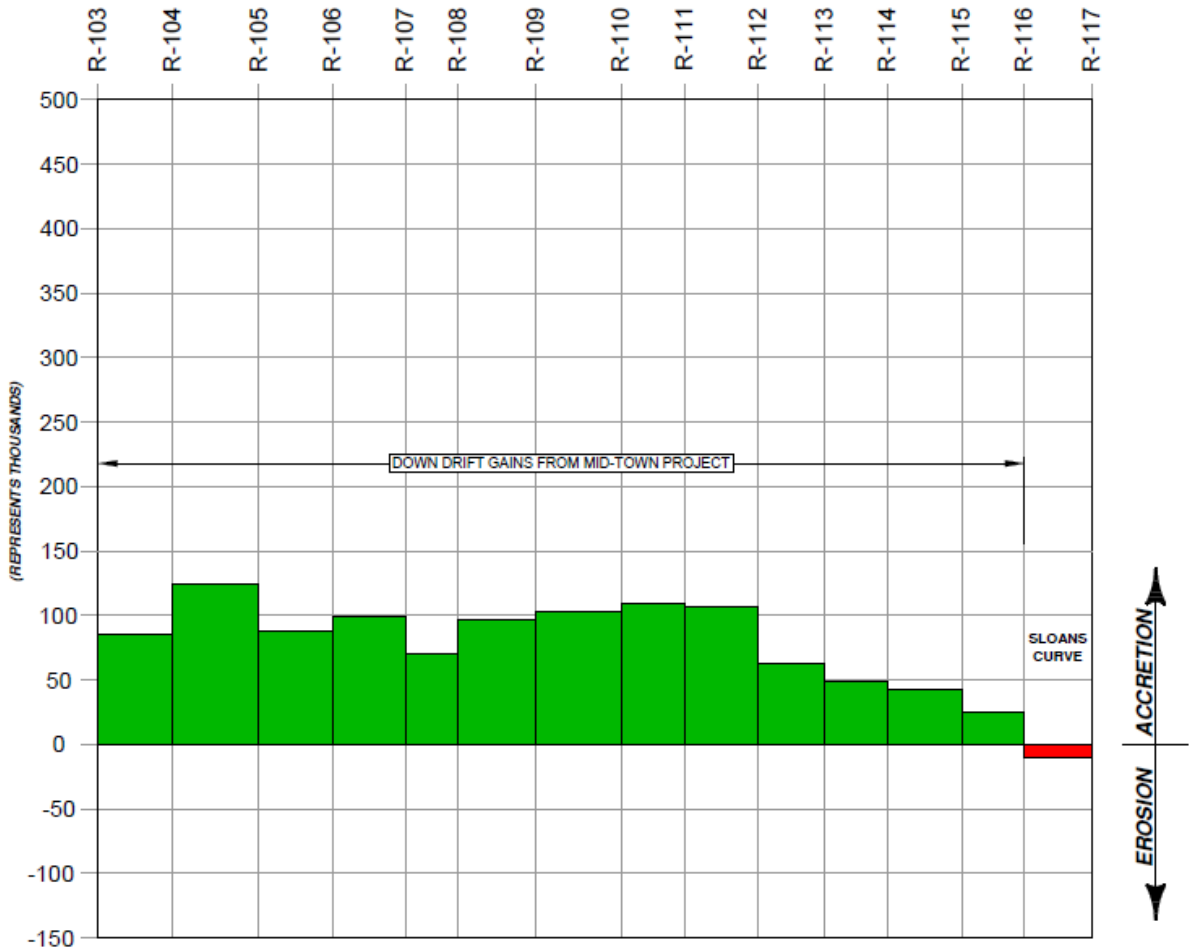
Mid-Town Nourishment

2014

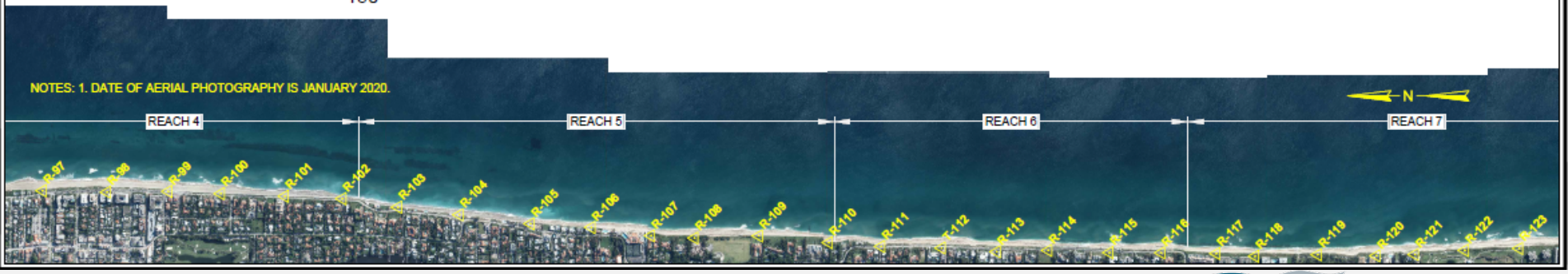


FDEP PROFILES

AUG. 1990 - AUG. 2020 VOLUME CHANGES ABOVE -26.2' NAVD
(CY)

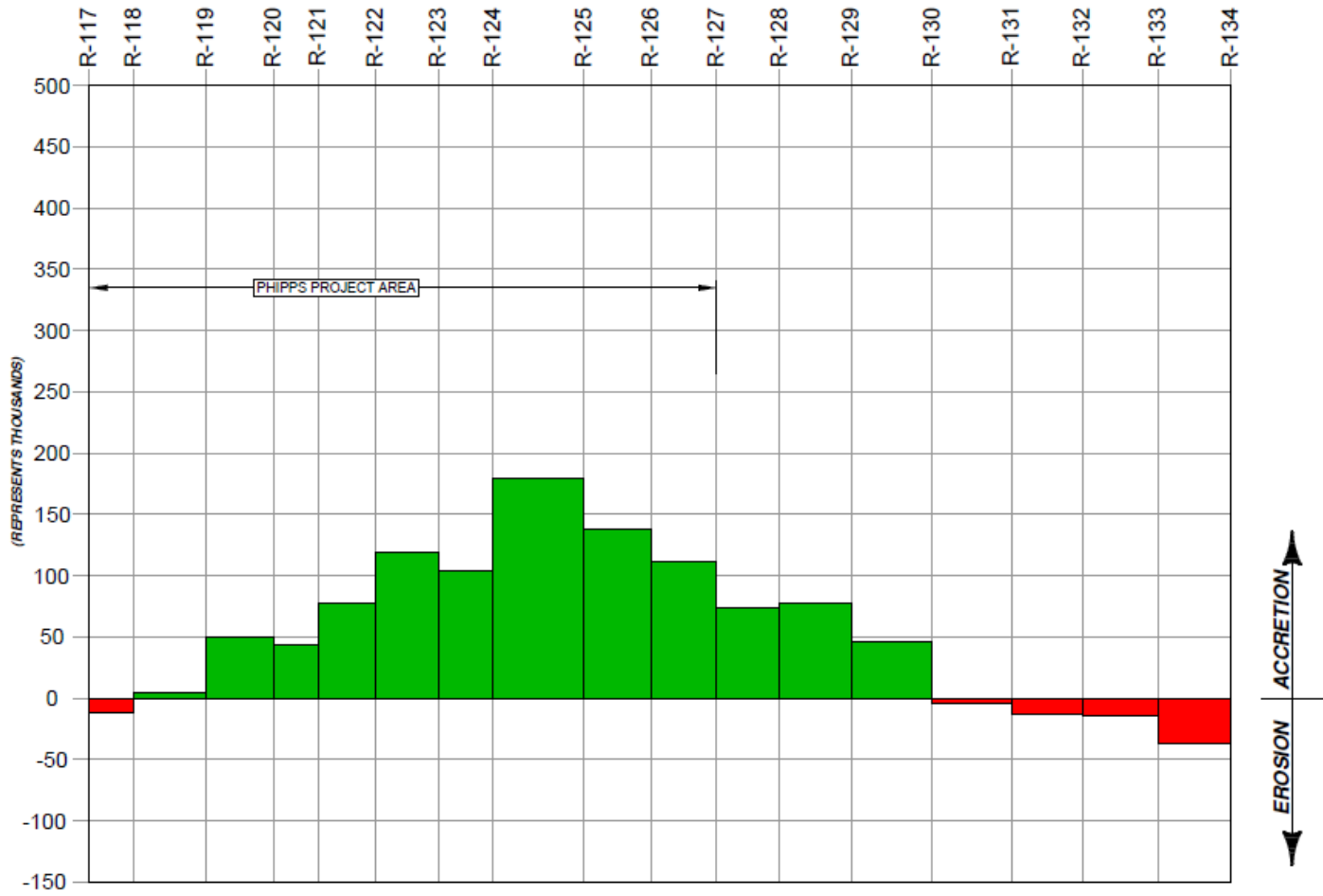


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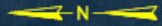


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REACH 6

REACH 7

REACH 8



Summary

- ▶ Volumetric Gains over 90+% of the total area
- ▶ Remaining issues – uneven distribution of gains
- ▶ Adaptive management is focused on volume redistribution through strategic placement and structural modifications

Thank You

