

# Truck Hauling Millions of Cubic Yards of Sand to Southeast Florida Beaches

Will Reilly, P.E. & Mike Neves, P.E.  
U.S. Army Corps of Engineers, Jacksonville District

Florida Shore & Beach Preservation Association  
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Beach Preservation Technology

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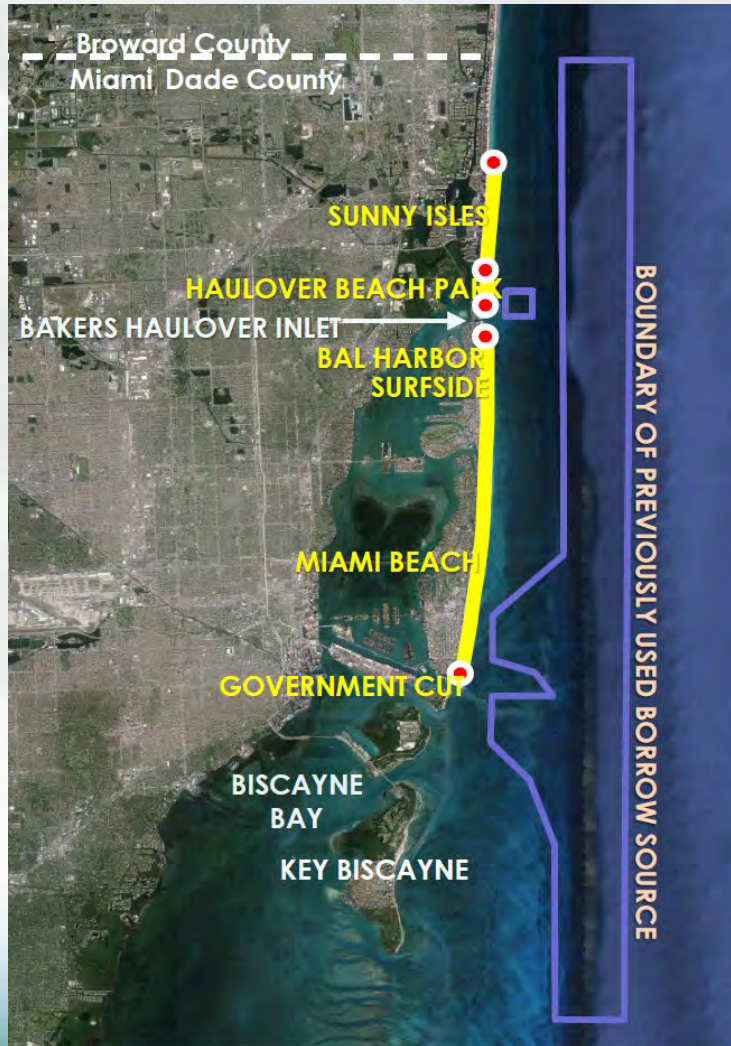




# SEDIMENT SOURCE – OFFSHORE (HYDRAULIC)



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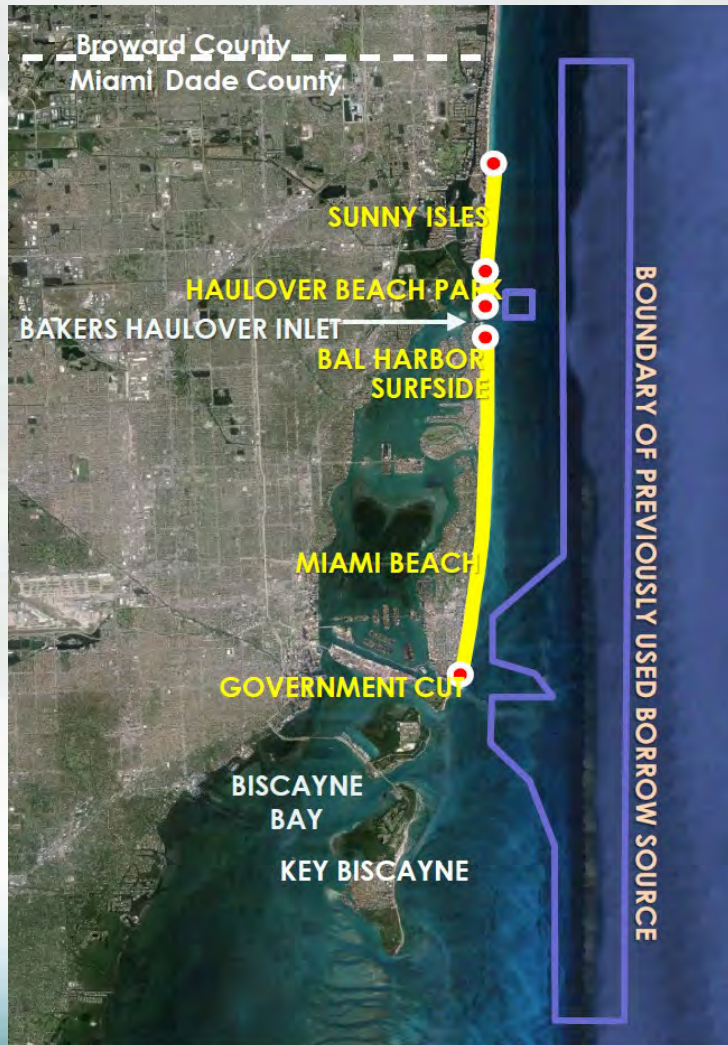
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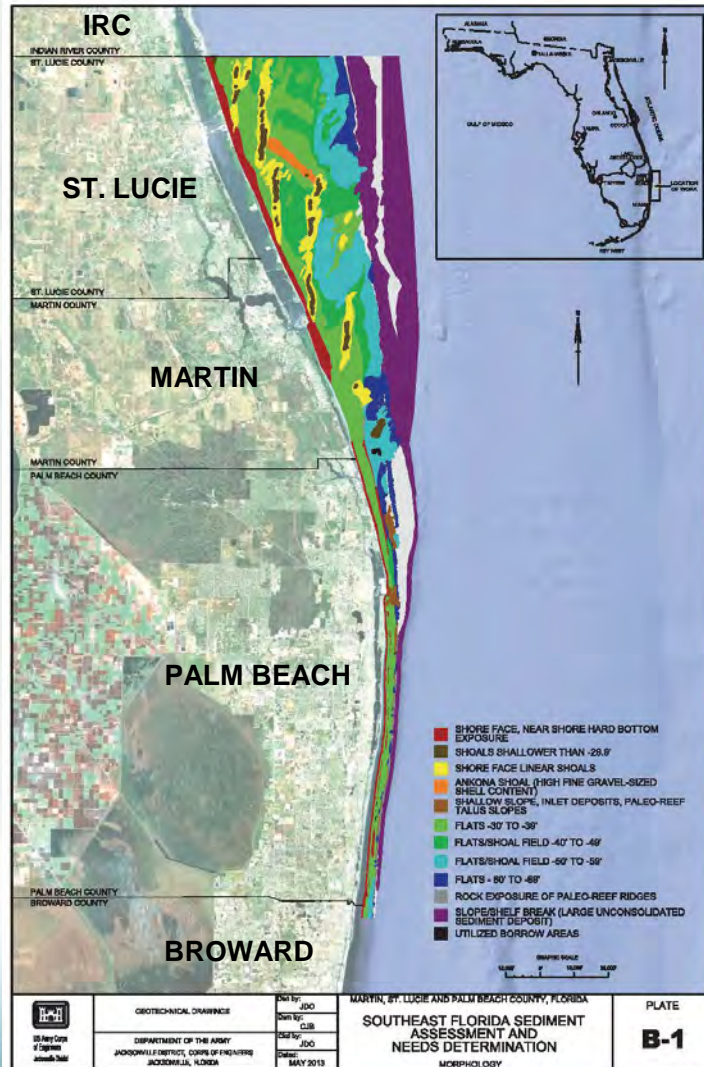


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# SEDIMENT SOURCE – OFFSHORE





# SEDIMENT SOURCES - UPLAND (TRUCK HAUL)



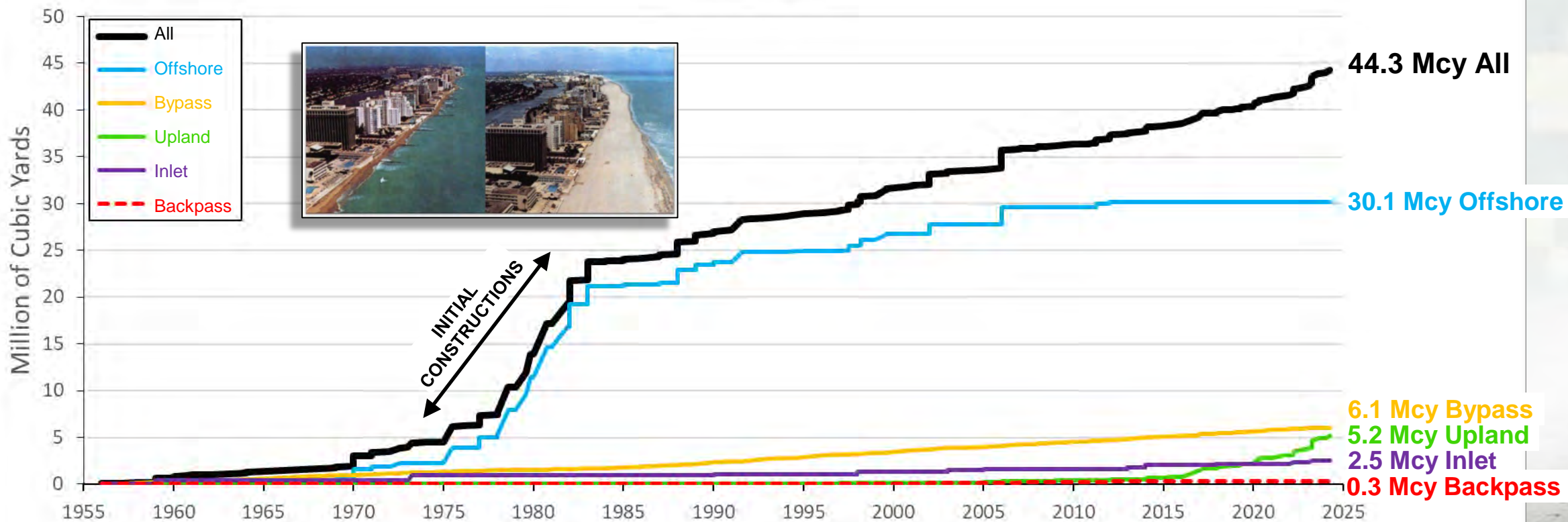
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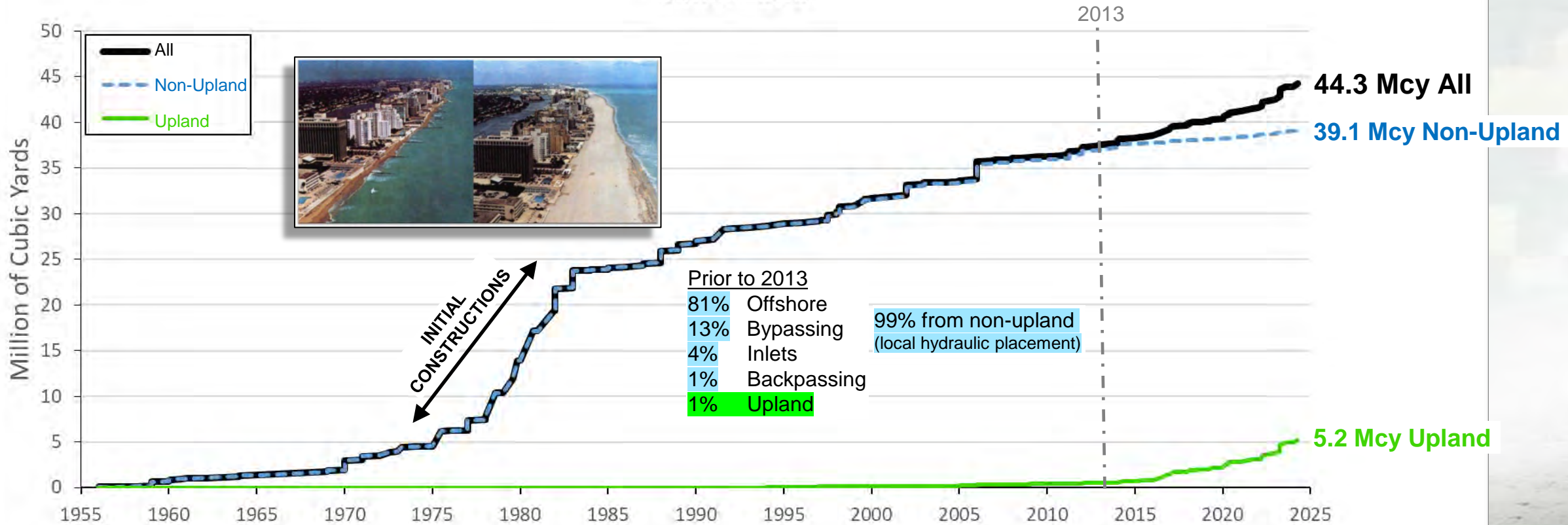
# SEDIMENT SOURCES

## Volume Placed on Broward & Miami-Dade Beaches Since 1955



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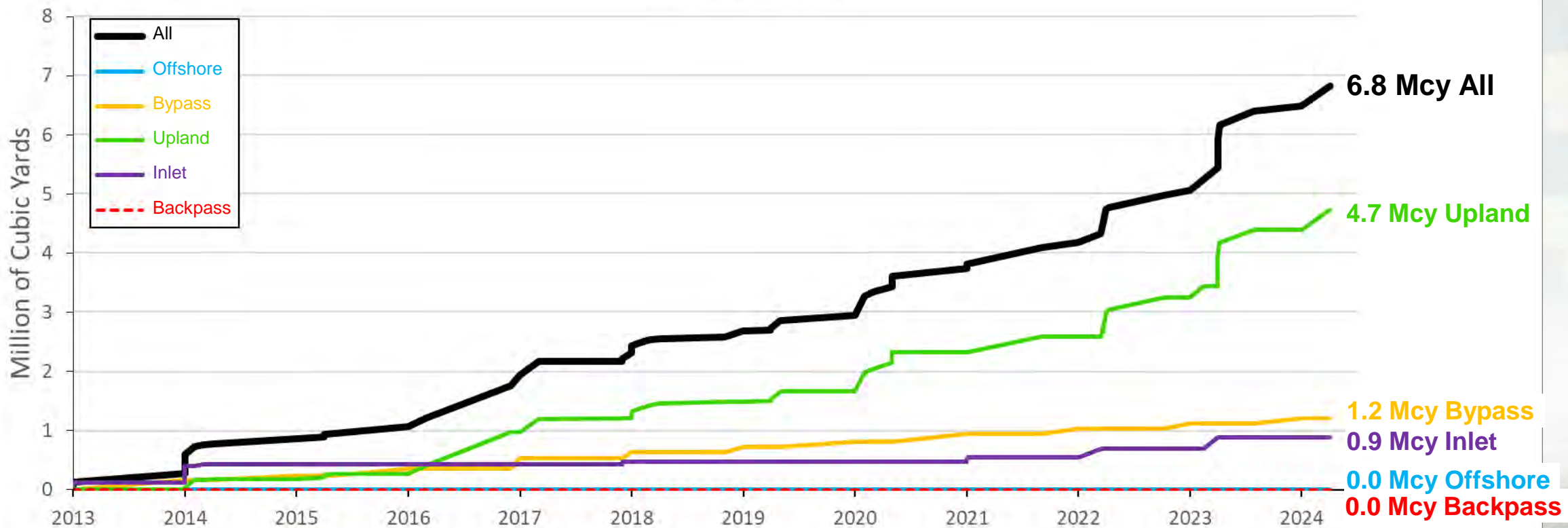


# SEDIMENT SOURCES



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## Volume Placed on Broward & Miami-Dade Beaches Since 2013



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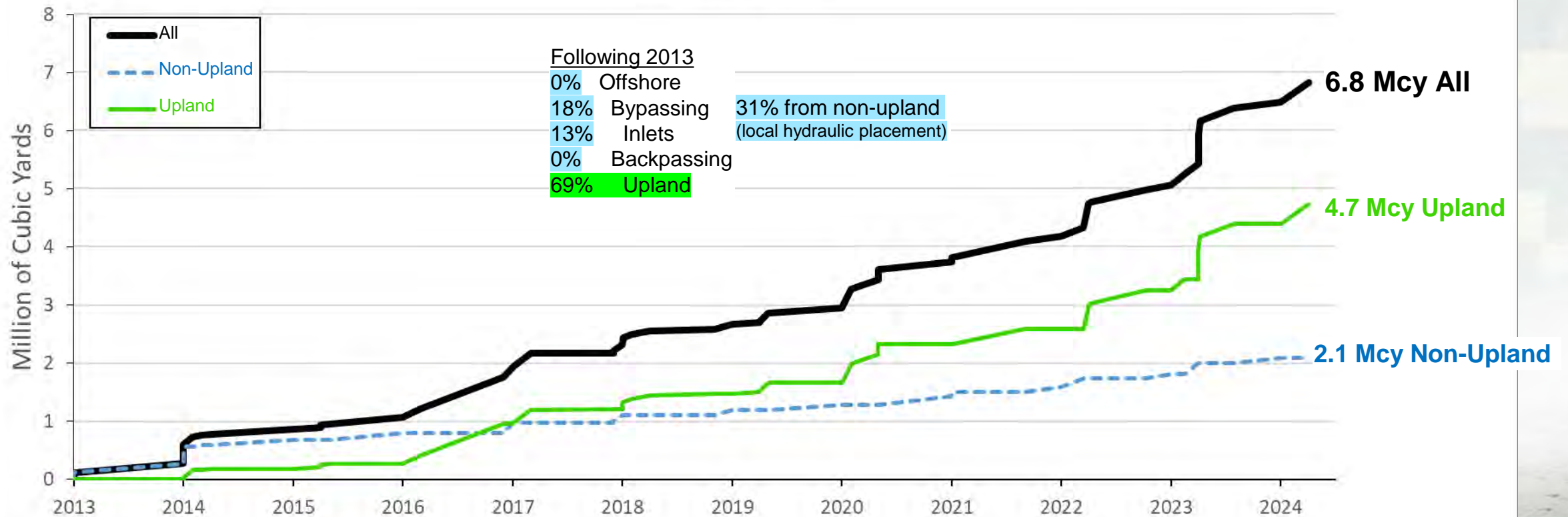


# SEDIMENT SOURCES



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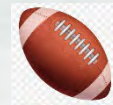
## Volume Placed on Broward & Miami-Dade Beaches Since 2013



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# TRUCK HAUL PROJECTS SINCE 2013 - STATS



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	<u>Project</u>	<u>Volume</u>
1.	2013-2014 Broward Segment II	131 Kcy
2.	2016 Broward Segment II	693 Kcy
3.	2016-2017 Miami-Dade Hotspots	233 Kcy
4.	2017-2018 Miami-Dade Sunny Isles	122 Kcy
5.	2019 Broward Segment III	135 Kcy
6.	2019-2020 Miami-Dade Surfside	325 Kcy
7.	2020 Miami-Dade Hotspots	270 Kcy
8.	2021 Miami-Dade Sunny Isles	270 Kcy
9.	2021-2022 Broward Segment II	391 Kcy
10.	2022 Miami-Dade Bal Harbour	32 Kcy
11.	2021-2023 Miami-Dade Hotspots	858 Kcy
12.	2021-2024 Broward Segment III	840 Kcy



12+1=13

4.3 Mcy

(additional 0.4 Mcy on non-Fed projects)

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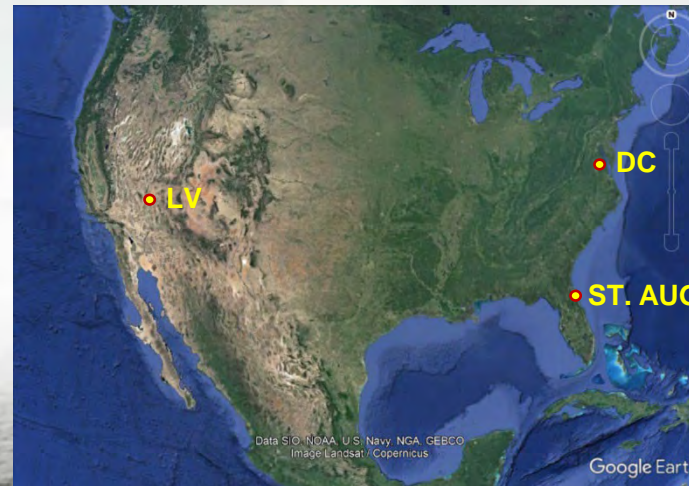
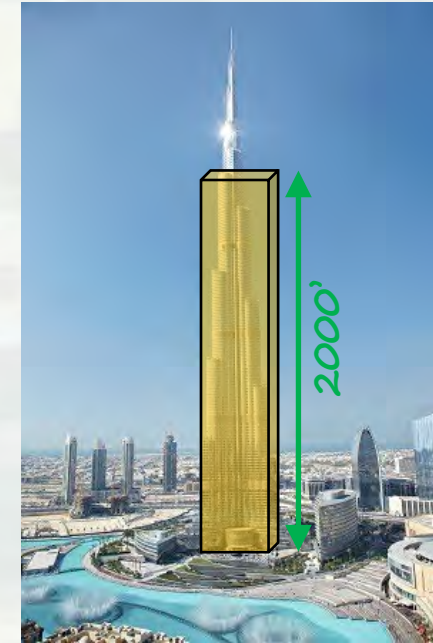


# TRUCK HAUL PROJECTS SINCE 2013 - STATS



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- **4.3 Mcy of sand placed**
  - *2,000 ft high filled over a football field*
  - *42 miles of shoreline placed (19 cy/ft)*
- **6.1 M tons of sand placed**
  - *39 X the weight of chicken wings eaten on Super Bowl Sunday*
- **\$ 212.6 M for sand**
  - *4.7 years of Patrick Mahomes' salary*
  - *\$49.50 / cy*
  - *\$40 to \$106 / cy - range of bids*
  - *\$40 to \$62 / cy - range of awards*
- **240,000 truck loads**
  - *800 miles of trucks lined up from St. Augustine to Washington DC*
- **48 M miles driven**
  - *10,000 round trips to Las Vegas*
  - *2,000 trips circumnavigating the Earth*
  - *100 round trips to the moon*





# TRUCK HAUL WORK PRODUCTION



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- 2-3 round trips per day
- 100 - 250 trucks per day
- Approx 22 tons/truck (18 cy/truck)
- 2,200 - 5,500 tons/day (1,800 - 4,500 cy/day)
- 6am -11pm trucks in staging area allowed
- 7am -7pm trucks and equipment on beach



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# TRUCK HAUL PROJECT CONSIDERATIONS



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- **Mobilization Cost**
- **Unit Cost**
- **Availability**
- **Project Planning Timeline**
- **Monitoring/Mitigation Cost**
- **Logistics/Oversight**
- **Sand Quality**
- **Placement Control**
- **Carbon Footprint**
- **Production Rate**
- **Public Disruption**
- **Staging and Access**





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**Truck haul projects have been proven to be a viable option for both small and large-scale renourishment projects.**

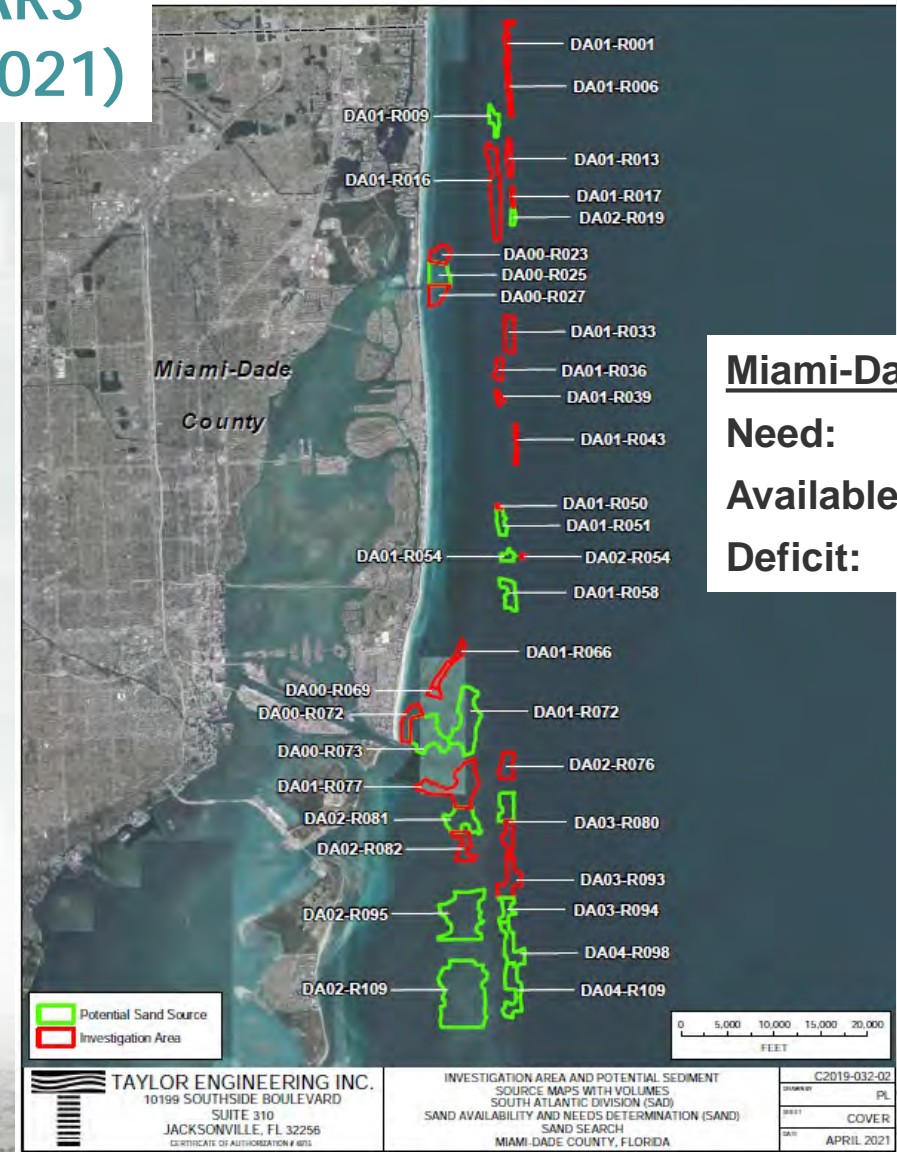
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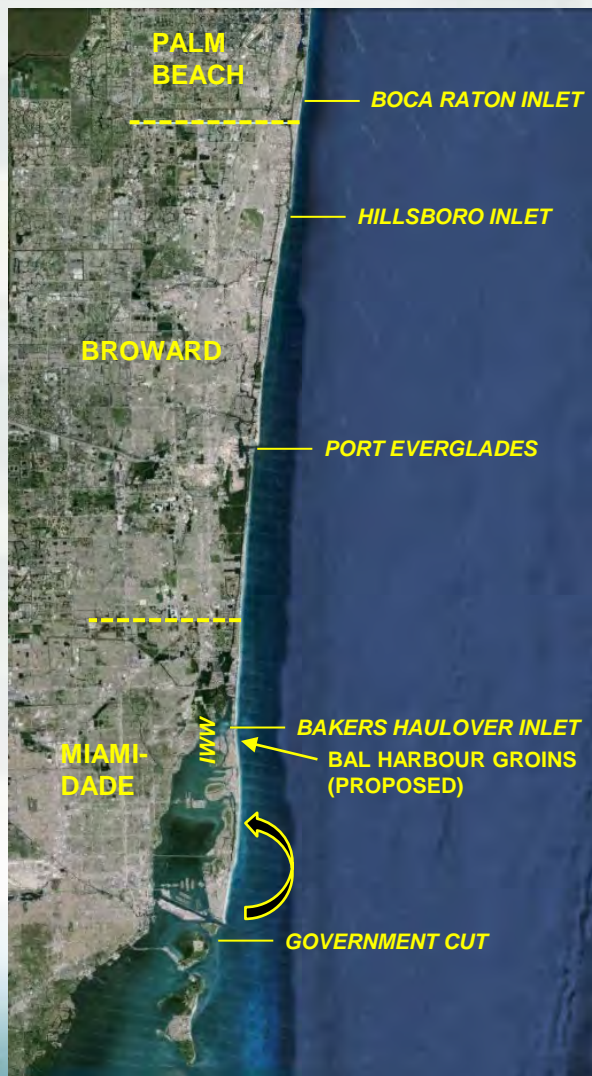


# SEDIMENT SOURCES PATH FORWARD

**NEXT 50 YEARS  
(SAND, APR 2021)**

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- **Inlets – Borrow areas, O&M BUDM, and bypassing**
  - Hybrid project with upland sand (Bal Harbour project)
- **Backpassing**
- **Offshore – Fully develop and permit identified areas**
- **Upland – Identify and permit all cost-effective compatible upland sources**
  - Sand sources of opportunity
  - Sand storage areas for emergency truck haul response
- **Sediment control structures – Bal Harbour groins**



# QUESTIONS



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- Thank you!

[William.L.Reilly@usace.army.mil](mailto:William.L.Reilly@usace.army.mil)

[Michael.P.Neves@usace.army.mil](mailto:Michael.P.Neves@usace.army.mil)



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