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PORT of SAN DIEGO

Moffatt & Nichol

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SAN DIEGO BAY SUSTAINABLE SHORELINES ATLAS

Sarah Richmond

CSBPA Coastal Conditions Symposium

May 12, 2026

Funding:
Department of Defense, Office of Local Defense Community Cooperation's Military Installation Resilience Program

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ECONCRETE COASTALOCK

Scaling Solutions

The Port have been actively pursuing opportunities to implement nature-based strategies.

OYSTER REEF CASTLE

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EMBARCADERO,
DOWNTOWN SAN DIEGO

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SAN DIEGO BAY NATIONAL WILDLIFE REFUGE

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CORONADO

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Nature-based Strategies

- Eelgrass
- Barrier islands
- Nearshore reefs
- Mudflats
- Tidal marshes
- Beaches
- Ecotone/embankment slopes
- Ecological armoring
- Living seawalls
- Creek-to-marsh reconnection

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Shoreline Management Units (SMUs)

San Diego Bay was segmented into 14 contiguous SMUs that share common physical and ecological characteristics, which influence the suitability of nature-based strategies.

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SMU Suitability

- **L** Limited does not mean infeasible; it indicates a constrained opportunity because: Conditions partially conflict with suitability criteria Requires significant traditional gray engineering for implementation
- **M** Moderate indicates an opportunity that is likely to perform as intended because: Conditions generally satisfy suitability criteria Strategy is viable with standard design practices
- **H** High indicates a priority opportunity because: Conditions closely align with suitability criteria Strategy is expected to perform over time at a meaningful scale

NATURE-BASED STRATEGY	SMUs 1	2	3	4	5	6	7	8	9	10	11	12	13	14
Eelgrass	H	M	M				H		H					M
Barrier Islands	H		M				H		H					
Nearshore Reefs	M	M	M				H		H		M		M	L
Mudflats							H							
Tidal Marshes			M	M	L	L	H	L	M	M	L			
Beaches	M	M	M	M	L	M	H	L	H	H	M		M	H
Ecotone / Embankment Slopes			M				H	L	M	M			L	L
Ecological Armoring	H	H	M	H	H	H	M	M	L	H	H	M	H	L
Living Seawalls			H	H	H	H	L	H	L	H	H	L	H	
Creek-to-marsh Reconnection							H							

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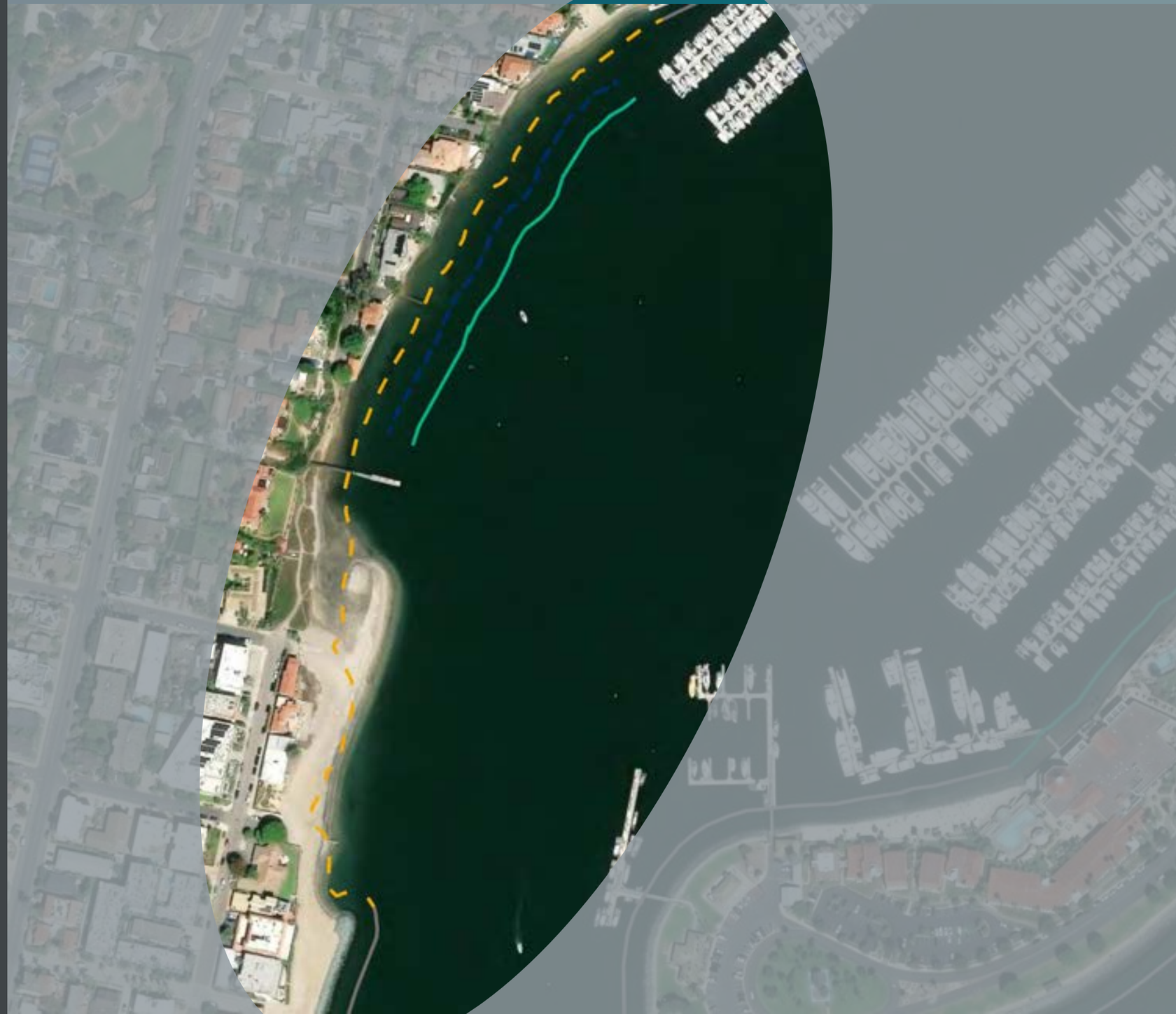
Online Tool: Kellogg Beach



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Benefits and Constraints

The relative benefits and constraints of each strategy can differentiate suitable strategies and help inform decision-making.

- L Limited
- M Moderate
- H High

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Atlas Informing Next Steps

- Port Regional Sediment Management Planning
- Site-specific Project Implementation

KELLOGG BEACH

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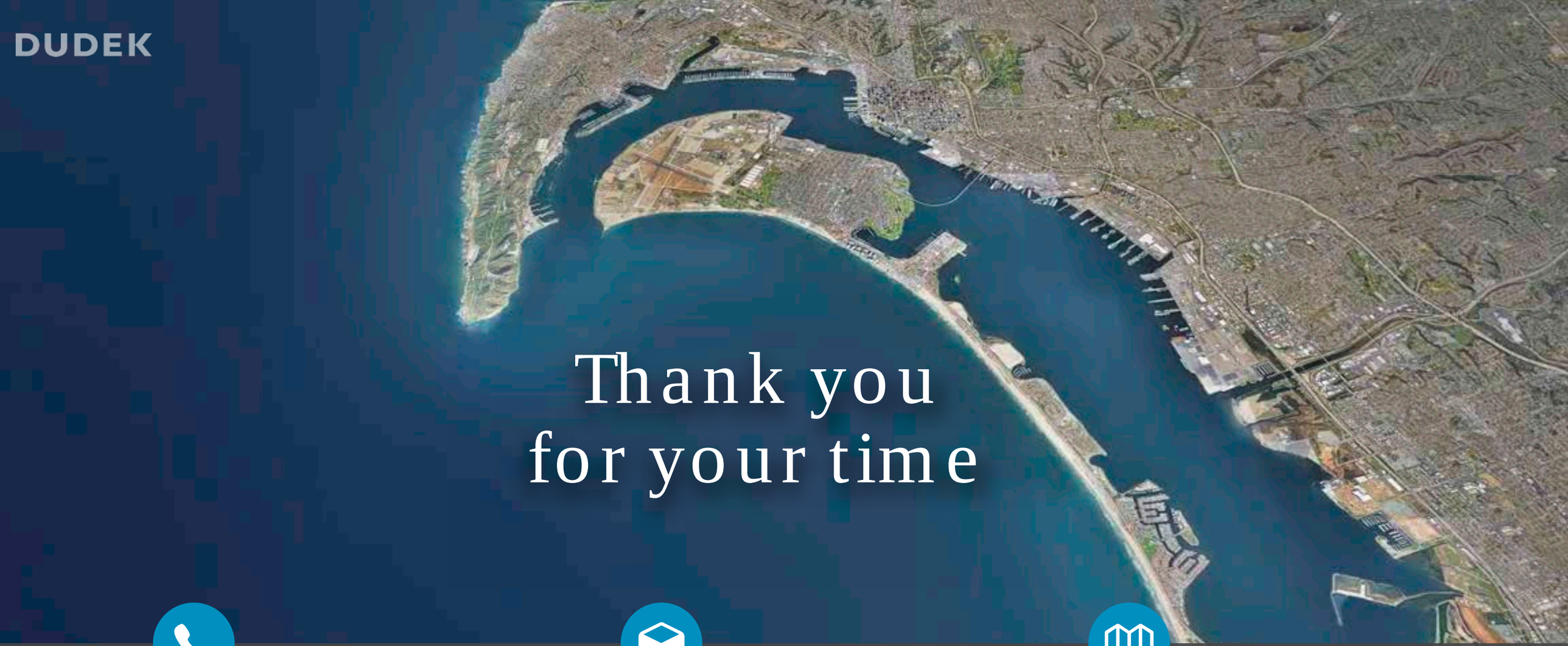

Thank you for your time

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