

CRESCENT CITY HARBOR DISTRICT

Presenter: Mike Rademaker, Harbormaster & CEO

CMANC Fall Meeting, September 9–11, 2026 · Sacramento

Crescent City: The West Coast Tsunami Magnet

#1 - EXPOSURE: Low elevation, land projects into ocean

#2 - FAR OFFSHORE
Shape of the Pacific Ocean seafloor focuses tsunamis towards California's North Coast

#3 - NEAR OFFSHORE
Continental shelf is slightly bowl-shaped trapping wave energy

#4 - COASTLINE
Del Norte County coastline focuses tsunami energy into Crescent Harbor



#5 - HARBOR SHAPE
Tsunami waves reflect and cause oscillations in the outer harbor

#6 - BOAT BASIN
Small boat basin with a narrow entrance accelerates currents entering and the hard walls cause waves to reflect





Figure Credit: Lori Dengler




TSUNAMI
HAZARD
ZONE


Crescent City
HARBOR



a different tsunami

The legal tsunami can bust the budget for decades

$5 million

Legal award to plaintiff

$2.5 million

Annual District budget

Extremely limited capital reserves



We need more crab to pay for this!

We don’t have margin for error



$2.5 million
Annual budget

We’re tiny! 150 acres of land
4,000 acres of water

Lease requirement:
Dredging was an absolute promise



Fashion
Blacksmith

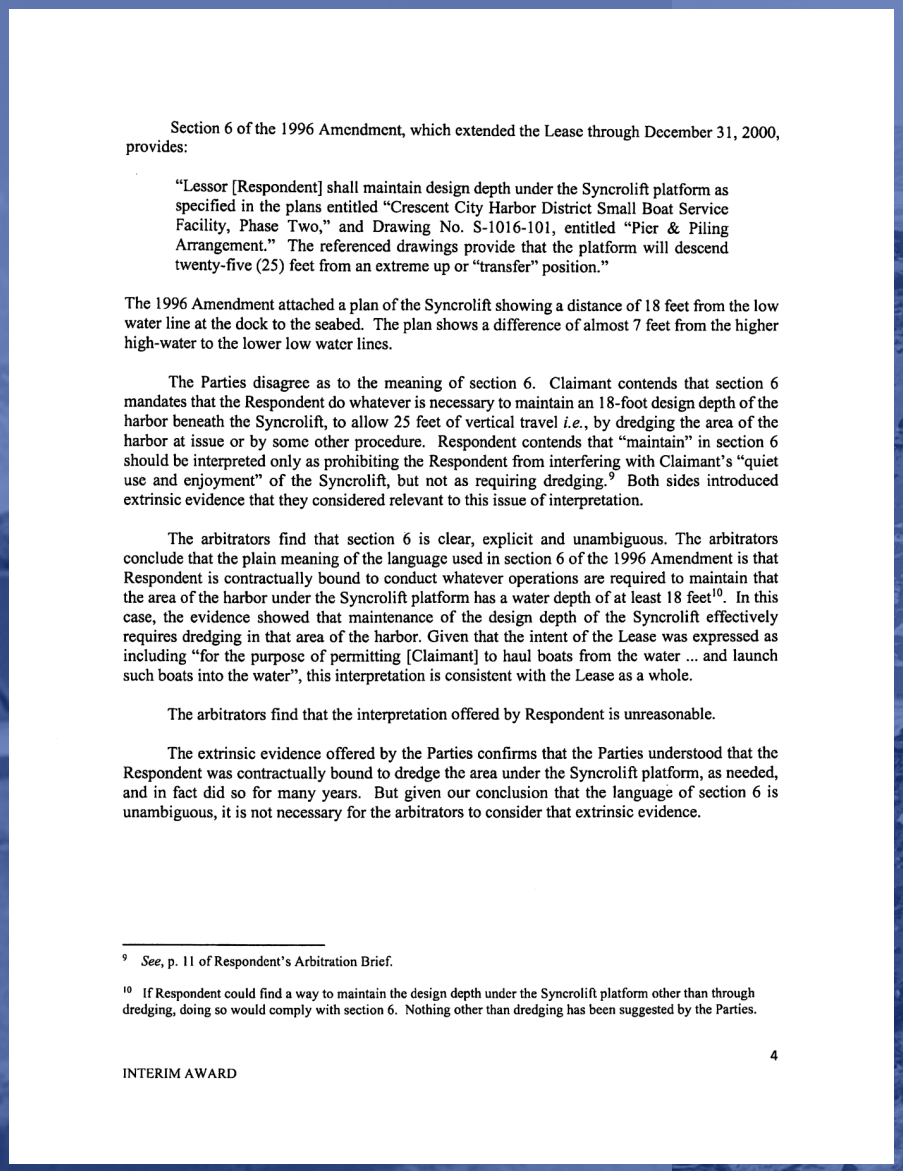
Progressive shoaling

No placement capacity

Multi-agency permitting nightmare

A boat builder depended on the syncrolift.
The lease promised a specified depth.

Five words that hit us like a sledgehammer



Section 6 of the 1996 Amendment, which extended the Lease through December 31, 2000, provides:

> "Lessor [Respondent] shall maintain design depth under the Syncrolift platform as specified in the plans entitled "Crescent City Harbor District Small Boat Service Facility, Phase Two," and Drawing No. S-1016-101, entitled "Pier & Piling Arrangement." The referenced drawings provide that the platform will descend twenty-five (25) feet from an extreme up or "transfer" position."

The 1996 Amendment attached a plan of the Syncrolift showing a distance of 18 feet from the low water line at the dock to the seabed. The plan shows a difference of almost 7 feet from the higher high-water to the lower low water lines.

The Parties disagree as to the meaning of section 6. Claimant contends that section 6 mandates that the Respondent do whatever is necessary to maintain an 18-foot design depth of the harbor beneath the Syncrolift, to allow 25 feet of vertical travel *i.e.*, by dredging the area of the harbor at issue or by some other procedure. Respondent contends that "maintain" in section 6 should be interpreted only as prohibiting the Respondent from interfering with Claimant's "quiet use and enjoyment" of the Syncrolift, but not as requiring dredging.[9] Both sides introduced extrinsic evidence that they considered relevant to this issue of interpretation.

The arbitrators find that section 6 is clear, explicit and unambiguous. The arbitrators conclude that the plain meaning of the language used in section 6 of the 1996 Amendment is that Respondent is contractually bound to conduct whatever operations are required to maintain that the area of the harbor under the Syncrolift platform has a water depth of at least 18 feet[10]. In this case, the evidence showed that maintenance of the design depth of the Syncrolift effectively requires dredging in that area of the harbor. Given that the intent of the Lease was expressed as including "for the purpose of permitting [Claimant] to haul boats from the water ... and launch such boats into the water", this interpretation is consistent with the Lease as a whole.

The arbitrators find that the interpretation offered by Respondent is unreasonable.

The extrinsic evidence offered by the Parties confirms that the Parties understood that the Respondent was contractually bound to dredge the area under the Syncrolift platform, as needed, and in fact did so for many years. But given our conclusion that the language of section 6 is unambiguous, it is not necessary for the arbitrators to consider that extrinsic evidence.

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[9] *See*, p. 11 of Respondent's Arbitration Brief.

[10] If Respondent could find a way to maintain the design depth under the Syncrolift platform other than through dredging, doing so would comply with section 6. Nothing other than dredging has been suggested by the Parties.

1996 Lease Amendment

"Lessor shall maintain design depth…"

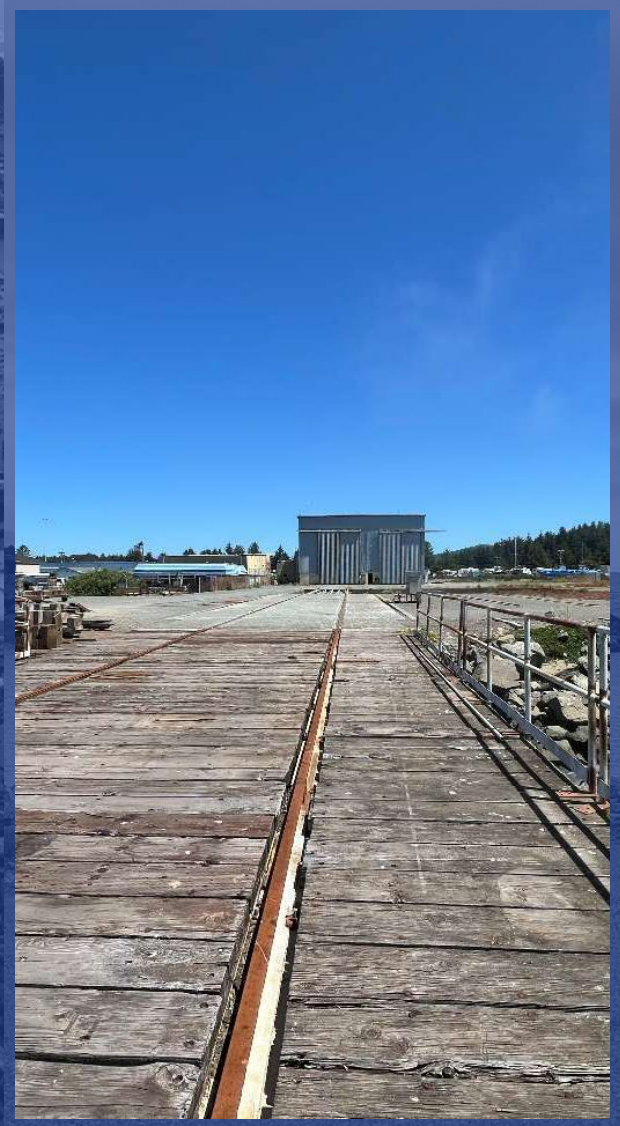
Absolute performance covenant

No regulatory contingency

The legal drafting lesson

Outcome Covenant vs. Contingency Obligation

The legal noose	How to survive
1 “**Shall** maintain design depth”	Define **target** maintenance depth instead
2 Requires **absolute** result	Impose a “**diligent-efforts**” obligation instead
3 Lacks a permit **contingency**	Premise it on a **regulatory approval**



The drafting lesson



The legal noose	How to survive
4 Contract lacks a placement contingency	Condition on lawful feasible placement
5 Undefined dispute outcome	Include a predetermined dispute remedy

Negotiate the consequences while everybody still wants the deal

A logical defense is not always a legal defense



When the defenses don’t hold

Impossibility

“Surely it can’t require the impossible.”

Illegality

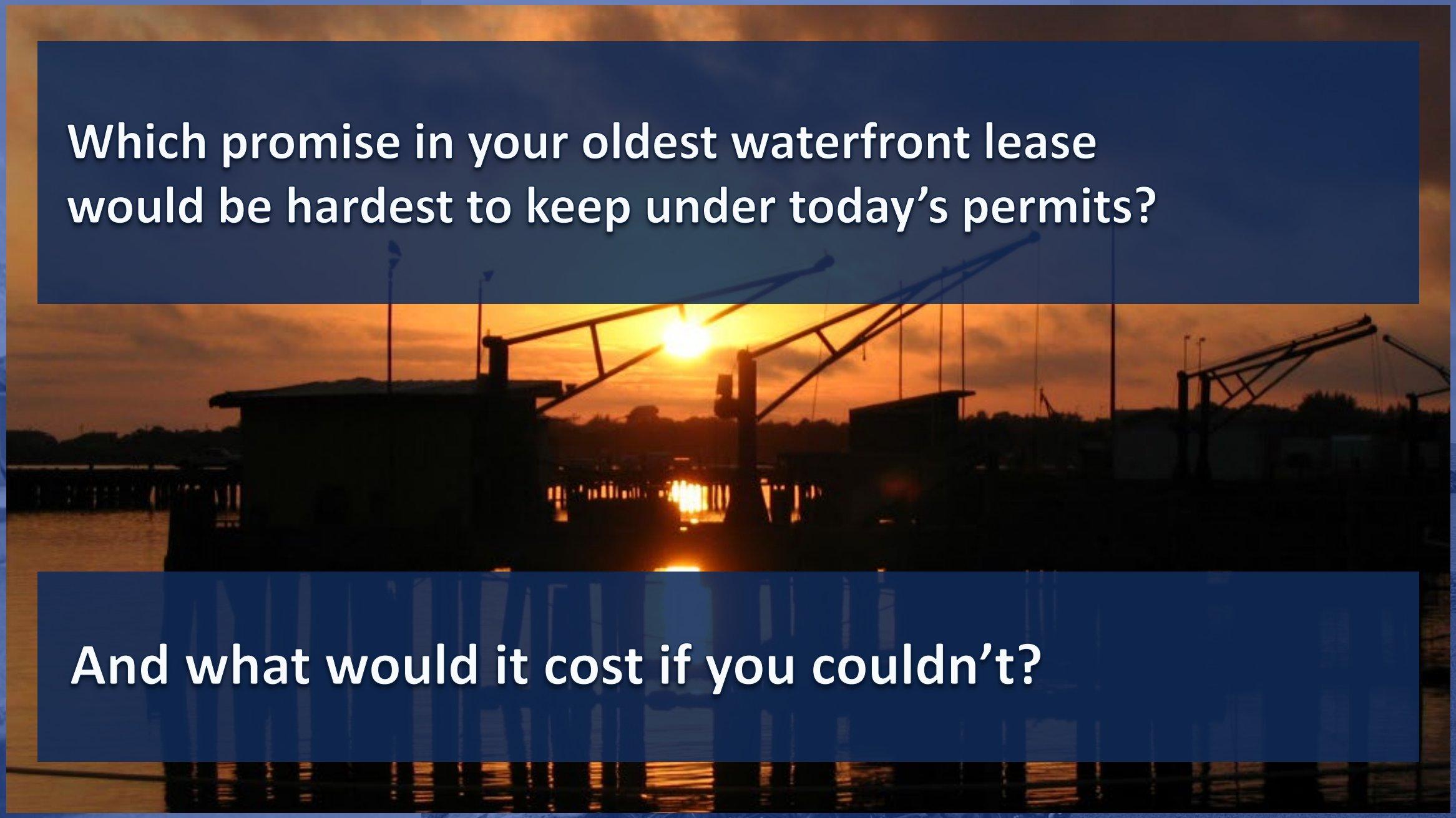
“Surely it can’t require breaking the law.”

Financial impracticability

“Surely the cost has to matter.”

Which contract clause would be hardest to keep?

Which promise in your oldest waterfront lease would be hardest to keep under today's permits?



And what would it cost if you couldn't?

Federal dredging authority can extend into eligible marinas

WRDA 2024 §1356 · 33 U.S.C. §2238e

One cycle Up to $10M federal share per project

What Congress authorized	What still needs an answer
10 total marina / berthing projects nationally	Eligibility of the local project footprint
Maintenance dredging and associated placement	Designated funding, selection and cost responsibilities

Standard local match: 25%

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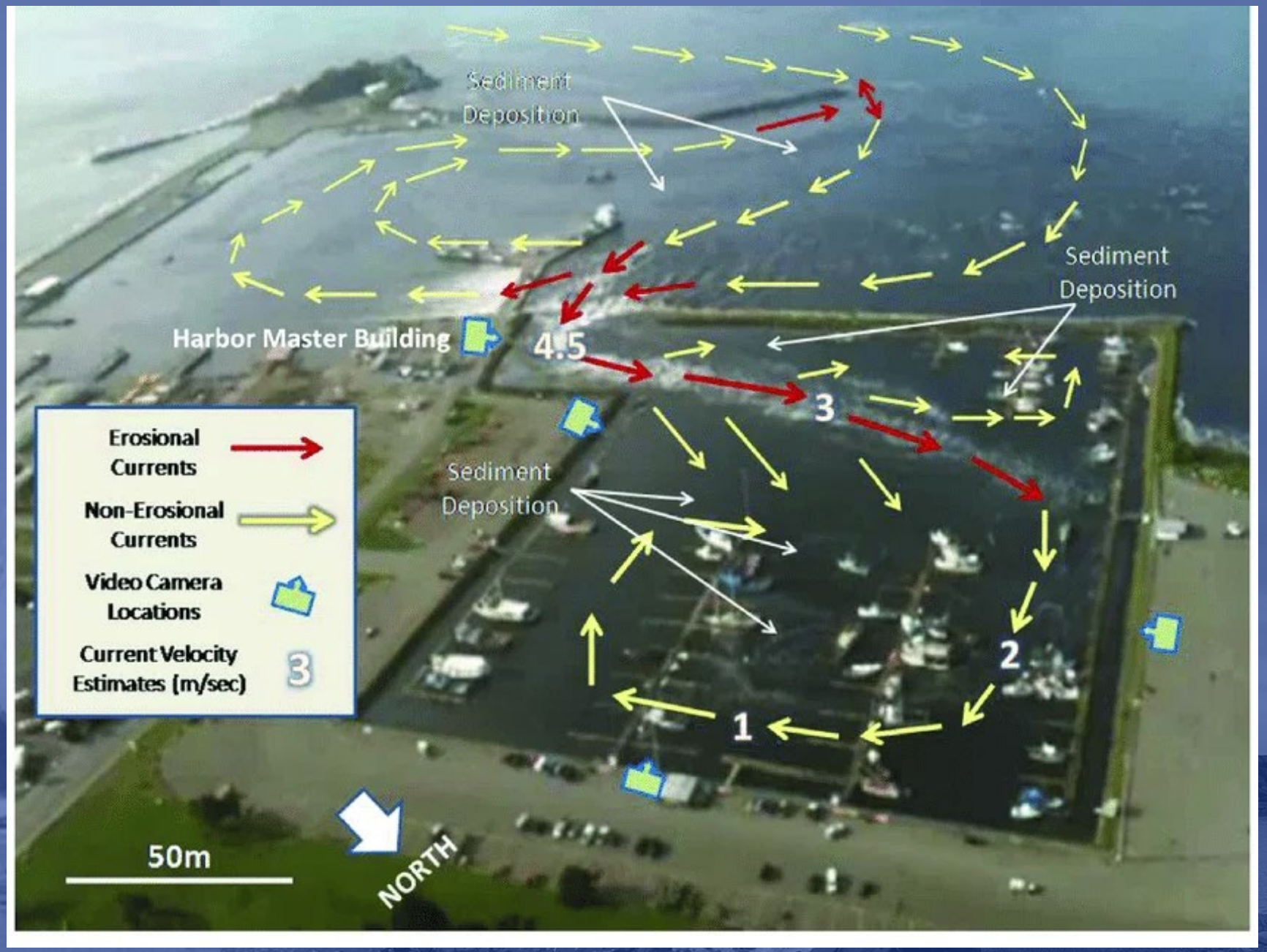
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Figure Credit: Lori Dengler



Numbers show estimated surface velocities (m/s) for the 2011 tsunami, and arrows indicate flow direction based on 14 ground-level and aerial videos taken of the event

Figure Credit: Amanda Admire

2011 Tohoku tsunami:





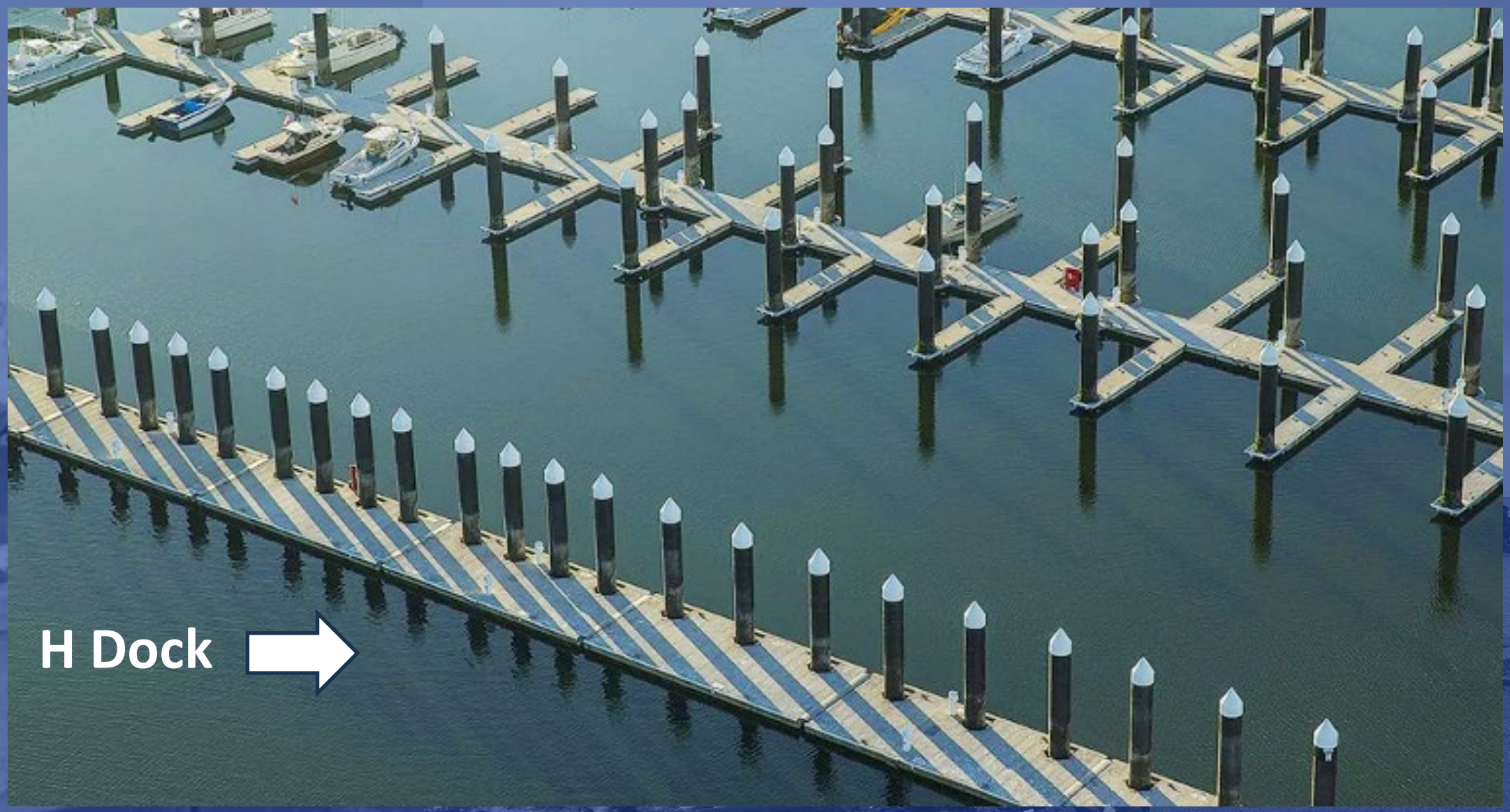
2011 Tohoku tsunami:



Reconstructed Boat Basin



The sacrificial “H” Dock



The sacrificial “H” Dock



Condition after 2025 tsunami

The sacrificial “H” Dock

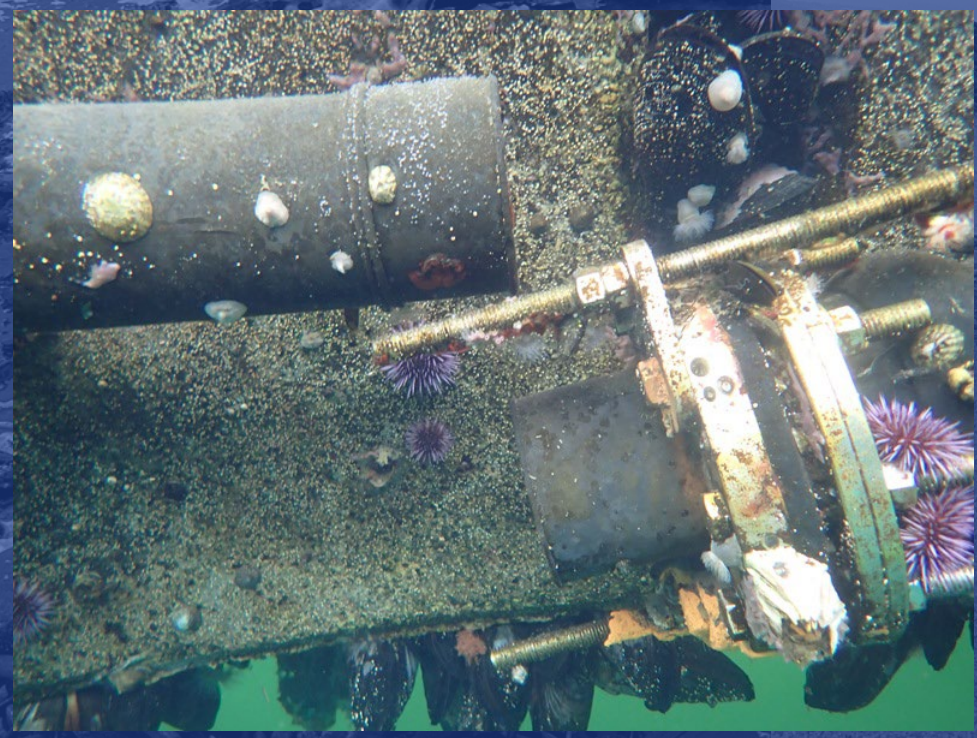


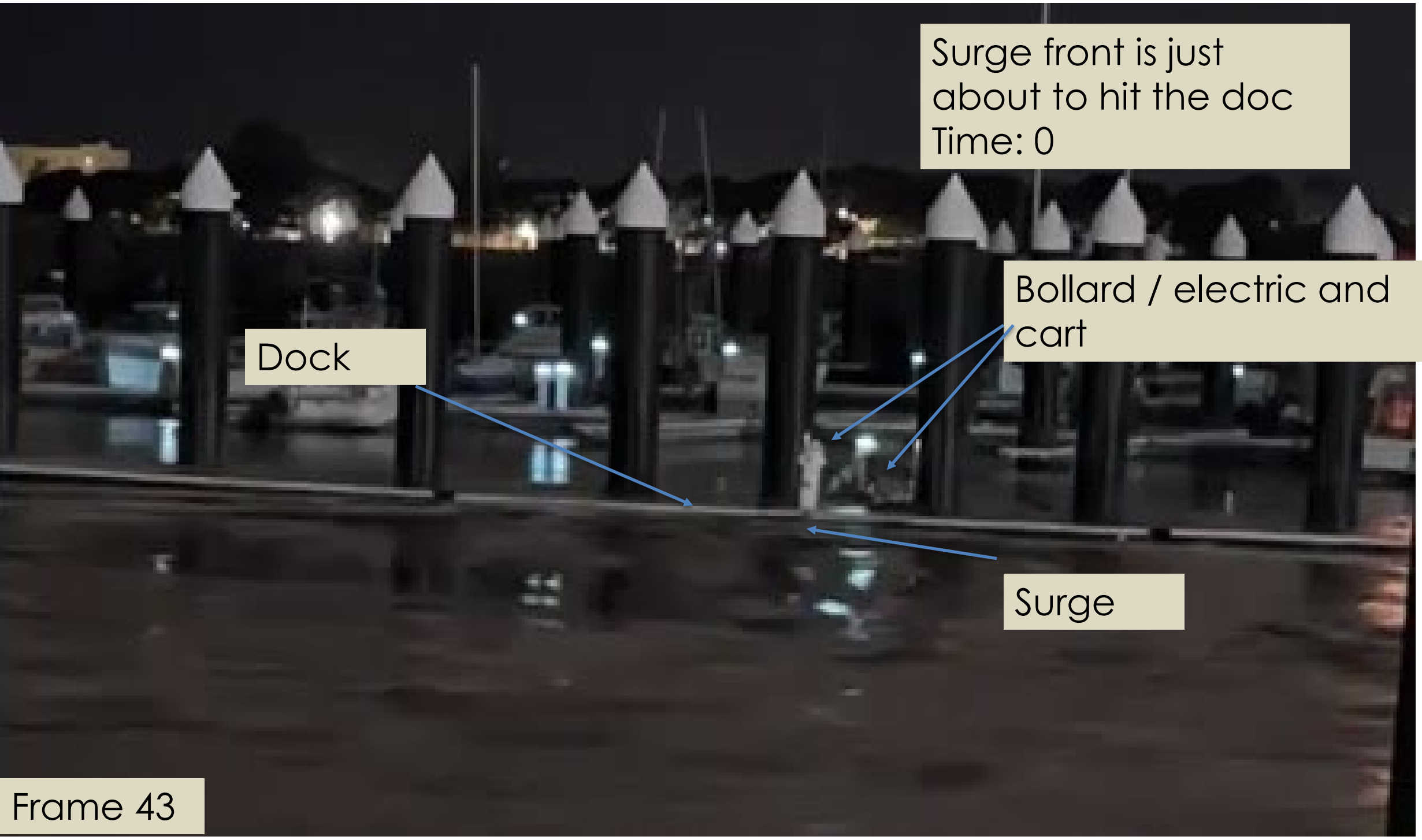
The sacrificial “H” Dock

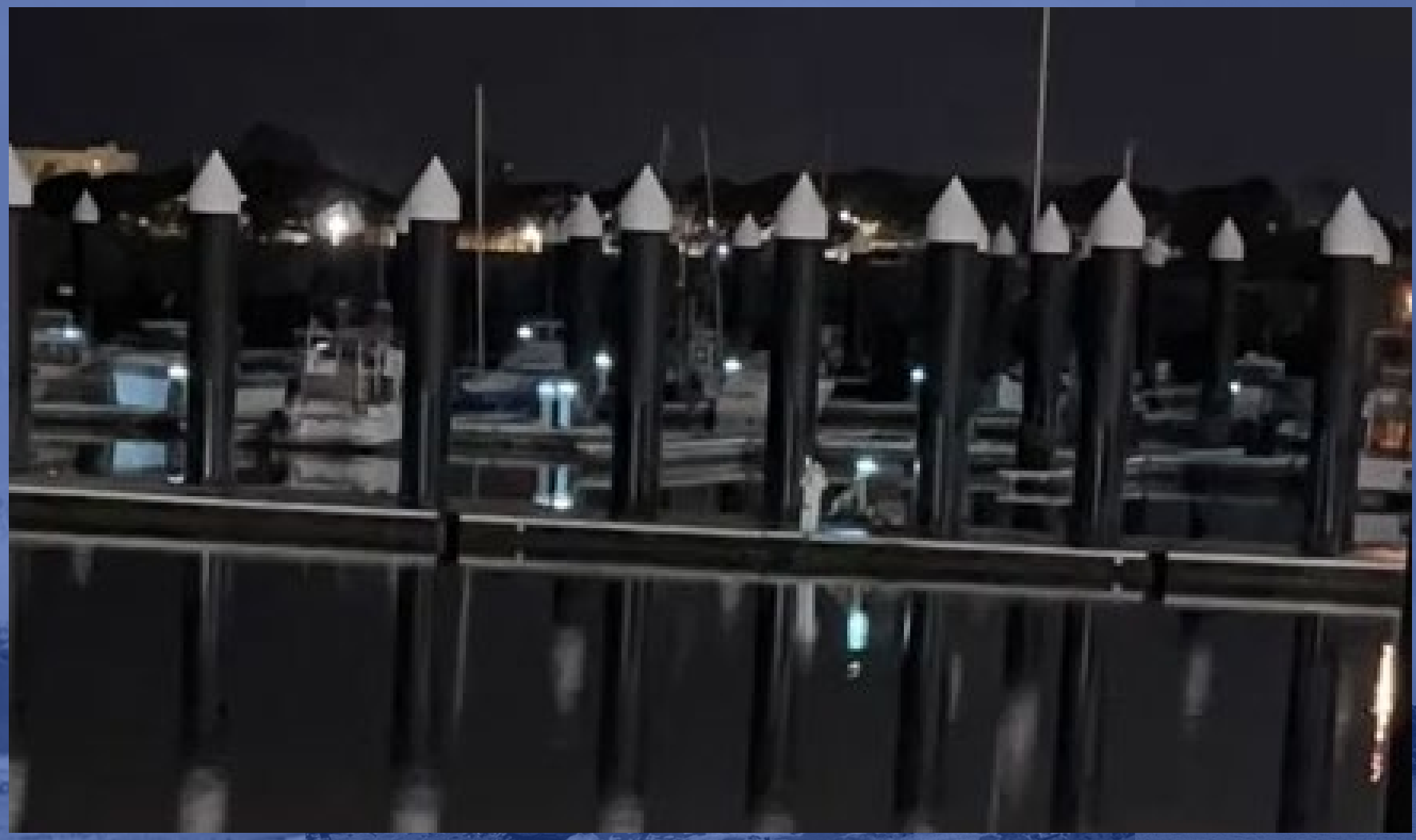
Detached potable water line



Detached fire suppression line




Surge front is just about to hit the doc
Time: 0
Bollard / electric and cart
Dock
Surge
Frame 43



Watch the small white bollard in the center of the frame. You will notice the dock moves downward before it rises at the end.




TSUNAMI
HAZARD
ZONE


Crescent
City
HARBOR



The harbor is...







building.

PIDP Seawall Grant

AWARD AMOUNT:

$15 Million

U.S. Maritime Administration



Construction of a new Seawall



Repair and renovate the seafood packing and trucking area



Replace the aged hoists atop the Seawall

New Citizens Dock Planning

AWARD AMOUNT:

$927,000.00

CALIFORNIA COASTAL CONSERVANCY



Expand Commercial Fishing



Harbor revitalization



Public Amenities

South Beach Climate Resilience Plan

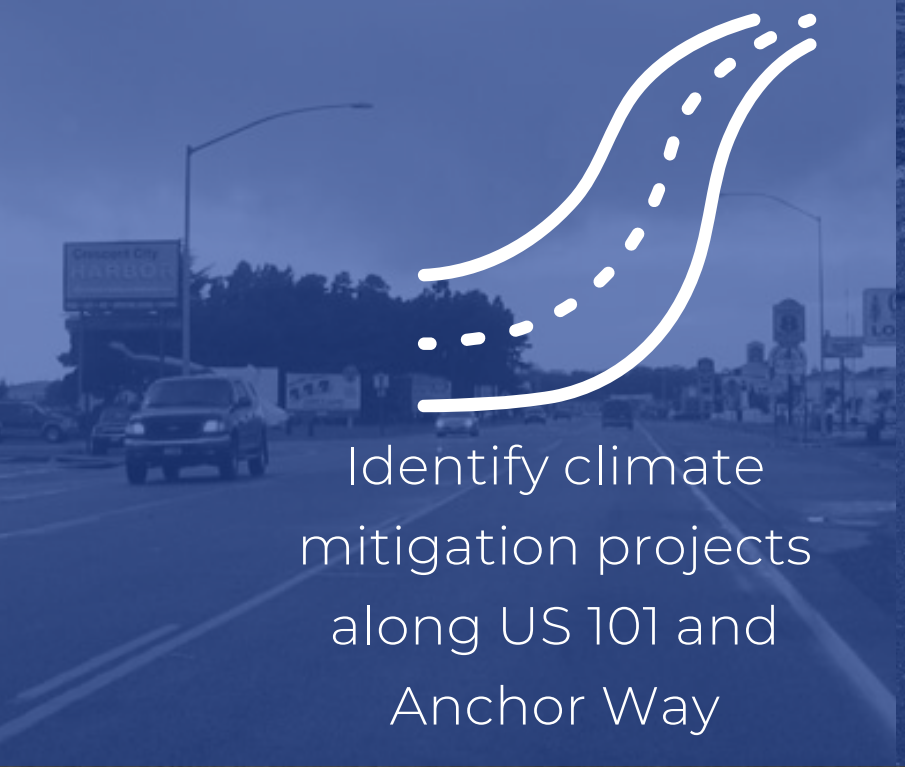
Del Norte Local Transportation Commission

AWARD AMOUNT:

$268,000

CALTRANS

ELK VALLEY Rancheria CALIFORNIA



Identify climate mitigation projects along US 101 and Anchor Way



Prepare for storm surges and sea level rise



Partner with DNLTC & Elk Valley Rancheria to prevent road closures

Hazard Mitigation Study

AWARD AMOUNT:

$1.35 MILLION

FEMA



Tsunami and storm protection



Economic Oportunities

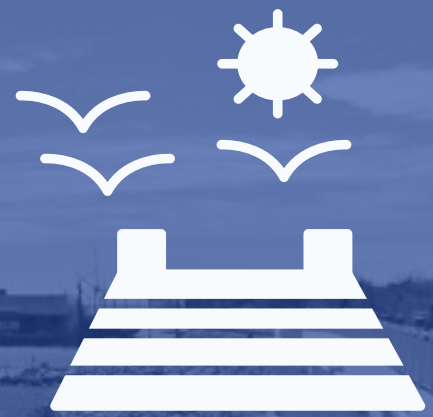


Sea level rise preparedness

Thinking Big!



Expand Commercial Fishing



Harbor revitalization



Public Amenities


Huntington
BEACH
SURF CITY USA®

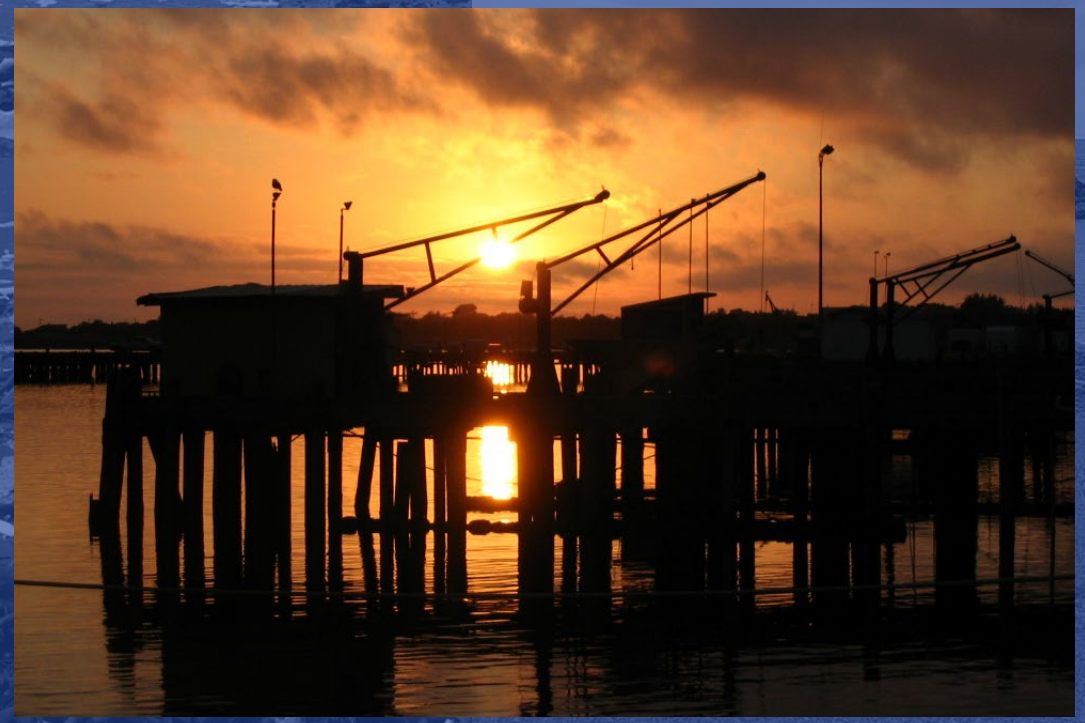

RUBY'S
SURF CITY DINER

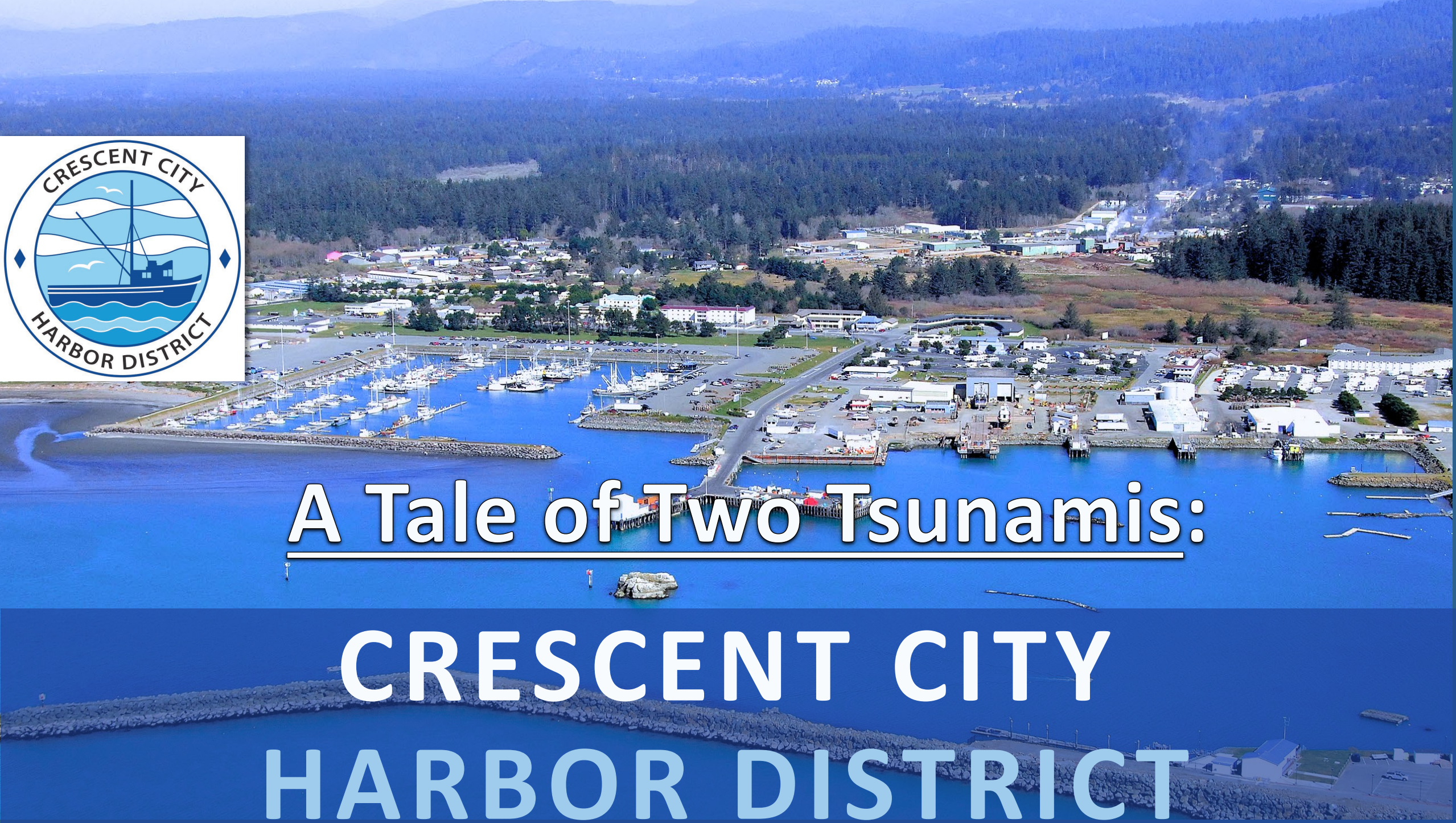


CRESCENT CITY
HARBOR DISTRICT

CRAB CITY
USA







A Tale of Two Tsunamis:

CRESCENT CITY HARBOR DISTRICT

Presenter: Mike Rademaker, Harbormaster & CEO

April 2026 Conference of the
Pacific Coast Congress of Harbormasters & Port Managers





