

Cosco Busan 11 years on: Restoration

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Assistant Deputy Administrator

Prevention First
September 25, 2018



Potential Components of a Pollution Case Settlement

- response and assessment costs
- penalties
- natural resource damages **\$32.3 million**
- other claims
 - public entities (lost tax revenue, lost parking fees, extra staff time, etc.)
 - private claims (lost income, injury to property, etc.)



What are Natural Resource Damages?

- Compensation for natural resource injuries
- Compensation for loss of use and enjoyment



- Damages are based upon the amount of **restoration** needed to make the environment and the public whole (OPA, Lempert-Keene)

Trustees and Coordination

- Trustees – DOI (USFWS, NPS), NOAA, CDFG, CSLC



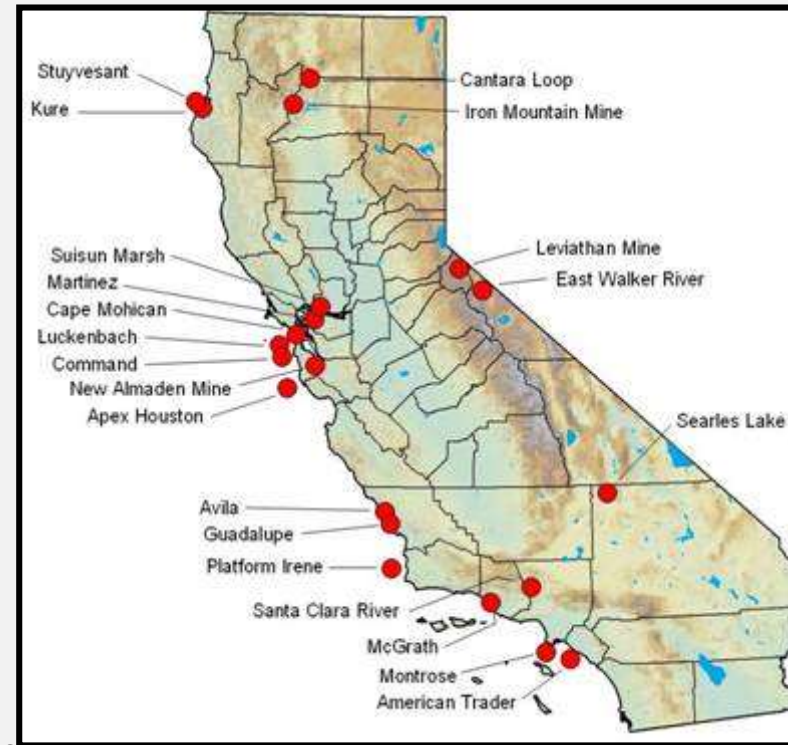
- Local Agencies – Assessment Coordination & Restoration Planning (CCSF & EBRPD)



- Public – Restoration Planning

The Process

- 1) Oil Spill
- 2) Data Collection
- 3) Public Information Meeting
- 4) Injury and Damage Quantification
- 5) Draft Restoration Plan
- 6) Public Comment Period
- 7) Final Restoration Plan
- 8) Implement Restoration Projects



← **WE ARE HERE**

Methods

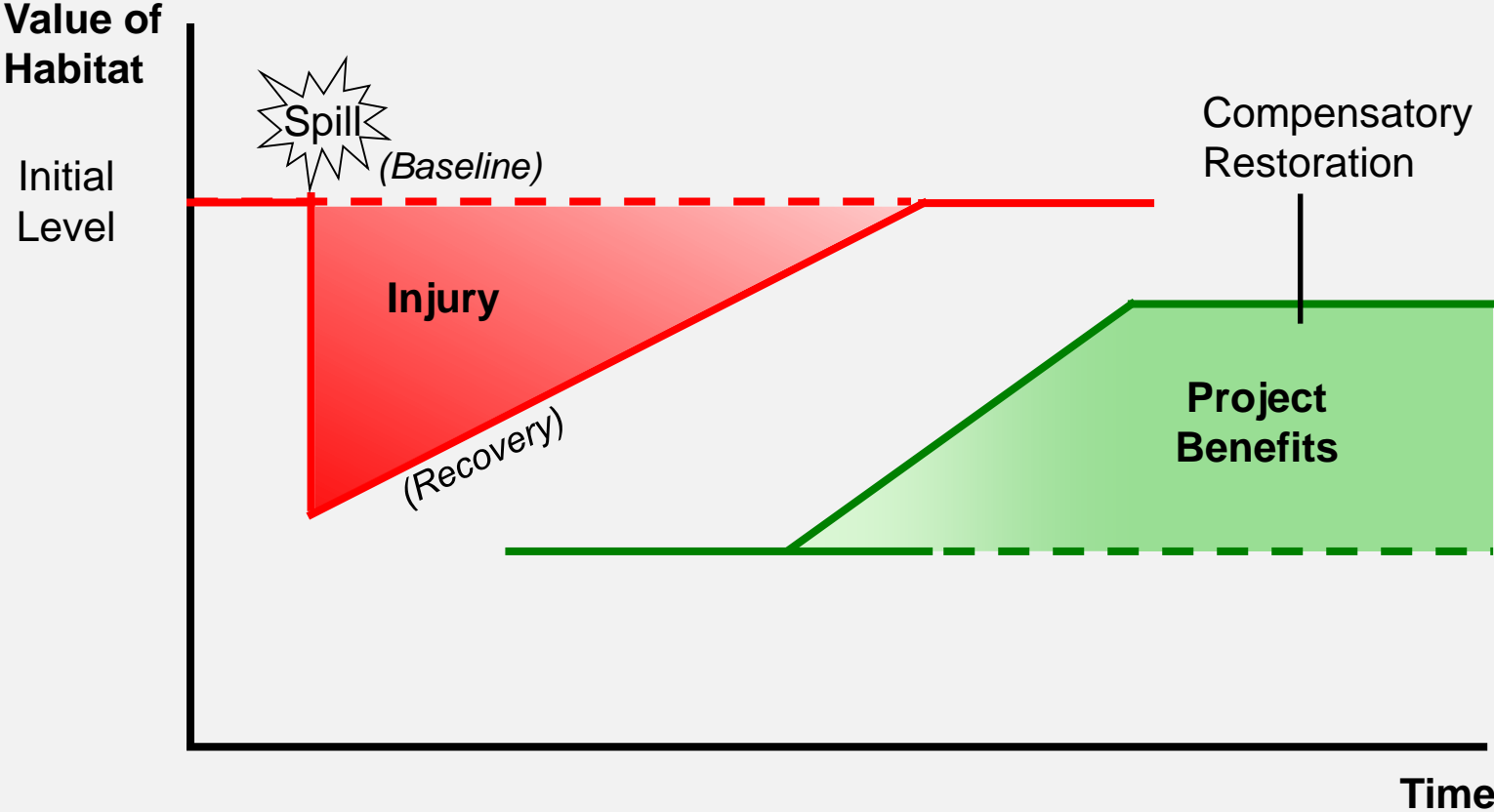
- Multi-disciplinary, multi-agency team
- Collecting data and planning NRDA tasks since Nov 7

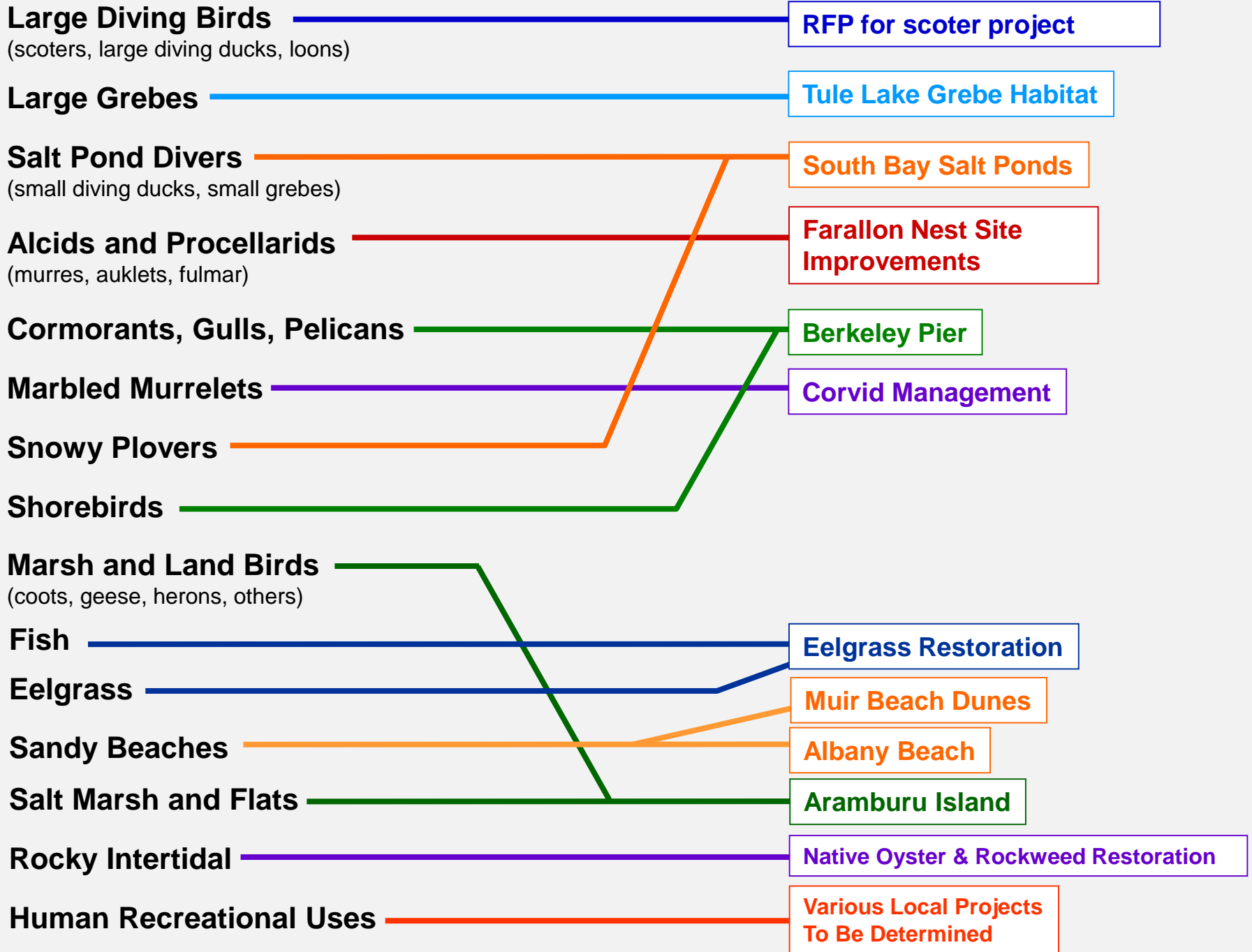
NRDAR Resource Subgroups

Team	Leader	Members	Notes
1. Birds	SEAN HANSEN	Dan Welch, Shannon Giffey, John Boyle, Matt Sten-Hampton, Greg Chalmers, Bill Reed	will be completed
2. Fish/Inverte	Patrick Butler	Michelle Goodwin-Hennessy, Greg Maasseth, Darren Fudge, Peter Sullivan, etc.	Yes, draft 11/10
3. Marine Mammals	Sarah Hixson		
4. Sandy Beach	Aick Dawson	Shannon Giffey, Susan Allen, Dennis Leach, Greg Maasseth	Yes, draft 11/10
5. Rocky Inter-Tidal	James King (USFWS)	Joe Kelleher, Ben Becker, Kristin Ward, Gary Paulick, White Conservation, Dennis Leach	
6. Salt Marsh/ Mudflats/ Lagoon	Janet Whitlock (FWS)	Laura Parsons, Janet Funnell, Kristin Ward, Dennis Leach, Greg Chalmers, Sam Barber, Marie Leach, James King	
7. Artificial Islands (Dredging/Port) Water Column	Mike Anderson (USFWS)	Chalmers - primary contact	Yes, draft 11/10
8. Eelgrass	Jan Zelo	Greg Maasseth	
9. Recreational Use	Daphne Holm (NPS)	Rob Giffey, Sam Hixson, Greg Giffey, Mark Barber, Mark Long	
10. Marine Avian	Daphne Holm	Leo Barber (USFWS)	
11. Ditch Mgmt	Tina Bence	Tina Bence, Mark Long, Dave Piro	
12. Core Mgmt	Jan Zelo (NPS)	Chris Barber, Greg Giffey, Daphne Holm, Gary Paulick, Dan Welch	

- Assessed injuries by resource category: birds, mammals, fish, shoreline habitats, eelgrass, rec use

Resource Equivalency Analysis





Injury Summary

Birds

Collected Live and Dead: 2,940

Total Estimated Mortality: **6,849**

Primary Species Impacted

Surf Scoter

Western Grebe

Eared Grebe

Common Murre

Marbled Murrelet



Shoreline Habitats (acres impacted)

Rocky Intertidal: 384

Sandy Beach: 648

Saltmarsh and Mudflats: 1,395

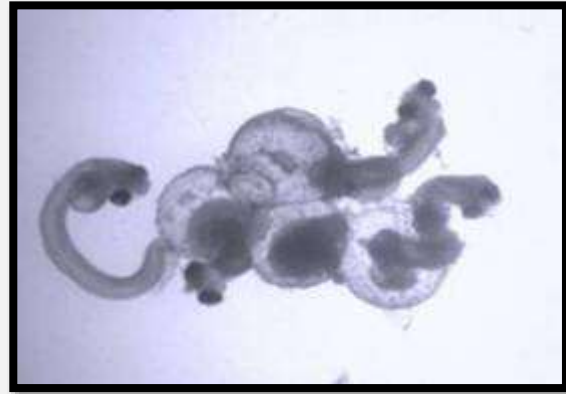
Eelgrass Beds: 940

Note: Most acres were lightly or very lightly oiled.

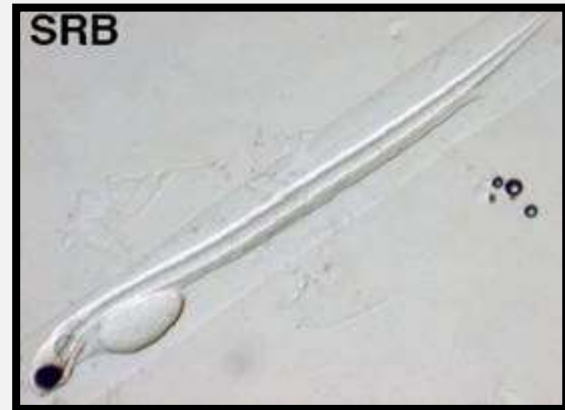


Fish

Herring Larvae inside spill zone:



Herring Larvae outside spill zone:



Estimated 14-29% of herring spawn lost in 2007-8.

No impacts detected: salmon, tidewater goby, Dungeness crab.

Recreational Use

Lost User-Days:

- fishing: 69,500
- boating: 26,600
- general shoreline use: 983,800

Value of a Lost User-Day:

- varied across time and activity, but averaged \$17.41

Total lost value: \$18.8 million



Settlement

Birds	\$5M
Habitat	\$4M
Fish/Eelgrass	\$2.5M
Recreational Use	\$18.8M
administration	<u>\$2M</u>
	\$32.3M

Restoration Summary

Bird Projects



Eden Landing Salt Pond Mgmt



Marbled Murrelet Restoration,
Humboldt Redwoods State Park



Derelict Net Removal,
Salish Sea



Berkeley Pier Bird Platforms



Egg Aversion Project, Santa Cruz Mtns

Habitat Projects



Bird and Habitat Projects



Aramburu Island Restoration

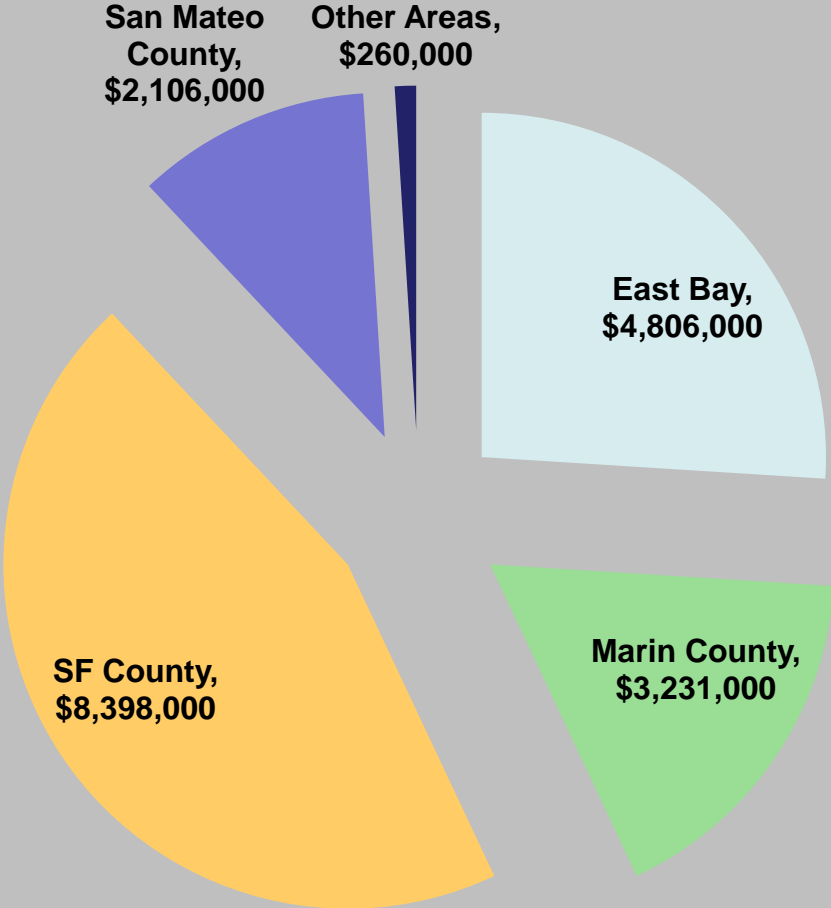


Muir Beach Dune Restoration



Eelgrass Restoration,
Marin County and East Bay

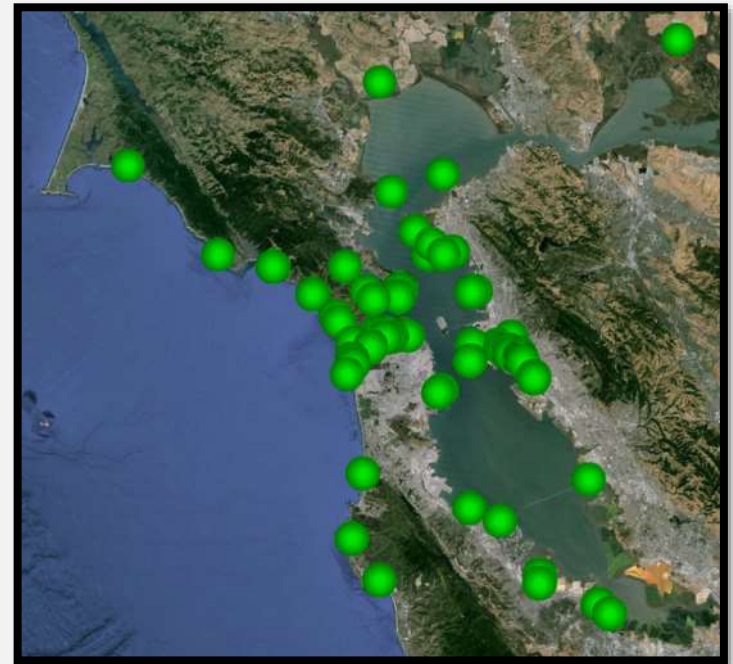
Recreation Projects



Recreation Projects



Oakland Estuary cleanup



Miller Knox Regional Park Restoration



South Rodeo Beach Access

Recreation Projects



Junior Lifeguard Program, Stinson Beach



Youth Fishing Program, Hayward Shoreline

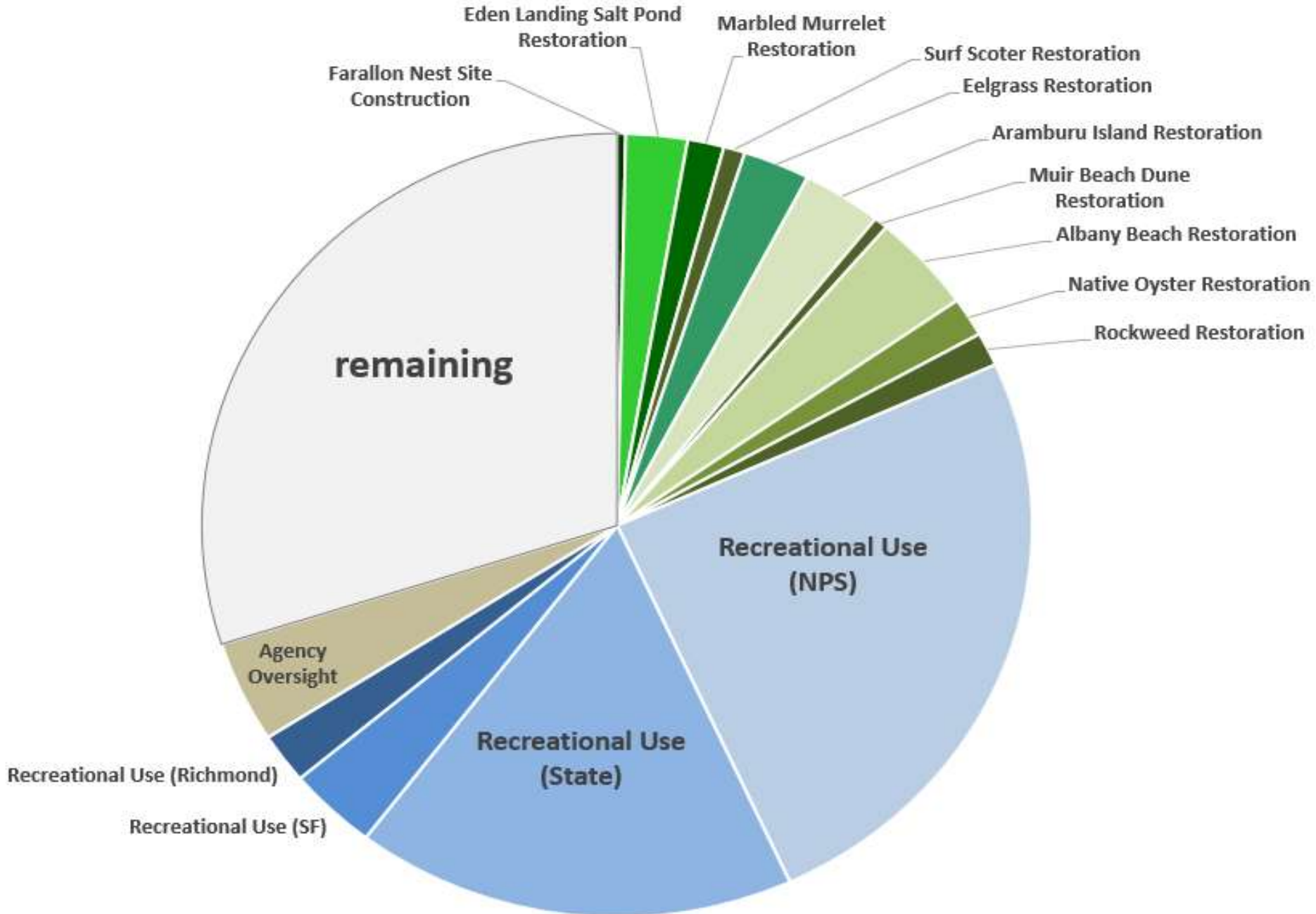


Ocean Beach Seawall Repairs, SF



Small Boat Docks,
Lake Merritt, Oakland

Restoration Fund Expenditures to Date



http://www.dfg.ca.gov/ospr/Science/cosco_busan_spill.aspx

