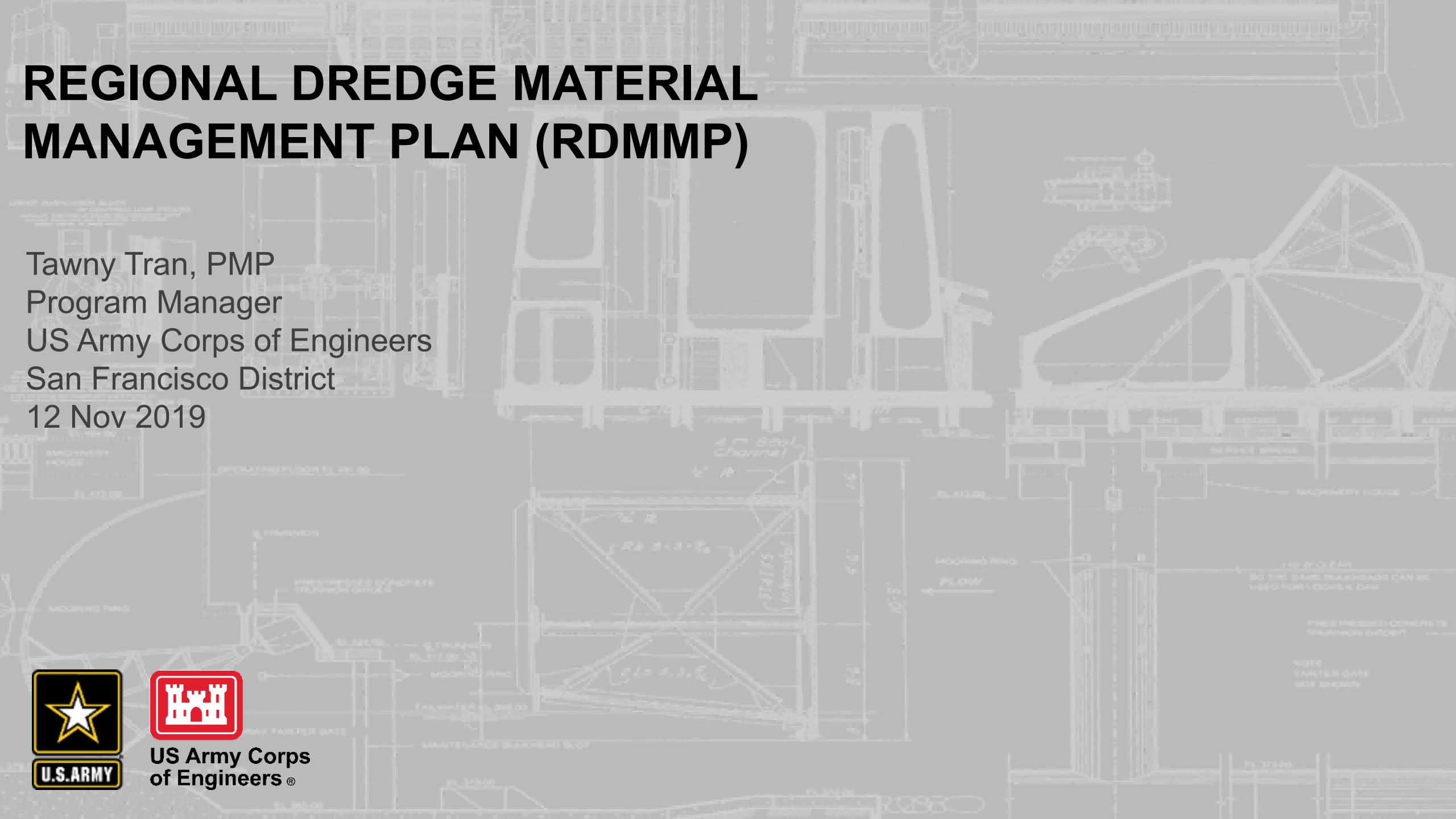


REGIONAL DREDGE MATERIAL MANAGEMENT PLAN (RDMMMP)

Tawny Tran, PMP
Program Manager
US Army Corps of Engineers
San Francisco District
12 Nov 2019



US Army Corps
of Engineers®





SAN FRANCISCO DISTRICT MISSIONS



Civil Works

Need authorization AND appropriation in 3 business lines--navigation, flood risk reduction, ecosystem restoration

- Planning Studies
- Construction Projects
- O&M for Lake Sonoma, Lake Mendocino and Federally authorized channels
- Regulatory
- Emergency Management

Military Construction

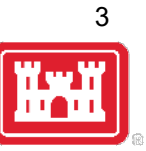
- MOTCO dredging
- Solar array at Moffett Field

Interagency and International Services

- Veterans Administration
- Golden Gate Recreation Area
- Lawrence Livermore Labs
- EPA
- USDOT Maritime Administration (MARAD)



SAN FRANCISCO DISTRICT DREDGING MISSION



- Achieve full depth within budget and environmental constraints.
- Enable maximum channel access between dredging seasons.

We have explicit Stewardship roles.

- Fiscal—Manage costs
- Environmental—comply with regulatory requirements
- Public and maritime safety—identify [and react to] high spots

Dredge Material Management Plans (DMMP) are a dredging mission requirement



REGIONAL DREDGE MATERIAL MANAGEMENT PLAN



Our DMMP should:

- Provide economic justification
- Identify 20+ years of placement capacity
- Demonstrate *Least Environmentally Damaging Practicable Alternative* (LEDPA)
- Conduct consultation, secure agency review plus provide public involvement opportunities
 - ✓ National Environmental Policy Act
 - ✓ Endangered Species Act
 - ✓ Clean Water Act
 - ✓ Coastal Zone Management Act
- Establish a base plan (least cost plan)
- Assess potential additional beneficial use





REGIONAL DMMP

12 Federal Navigation Projects

Deep Draft

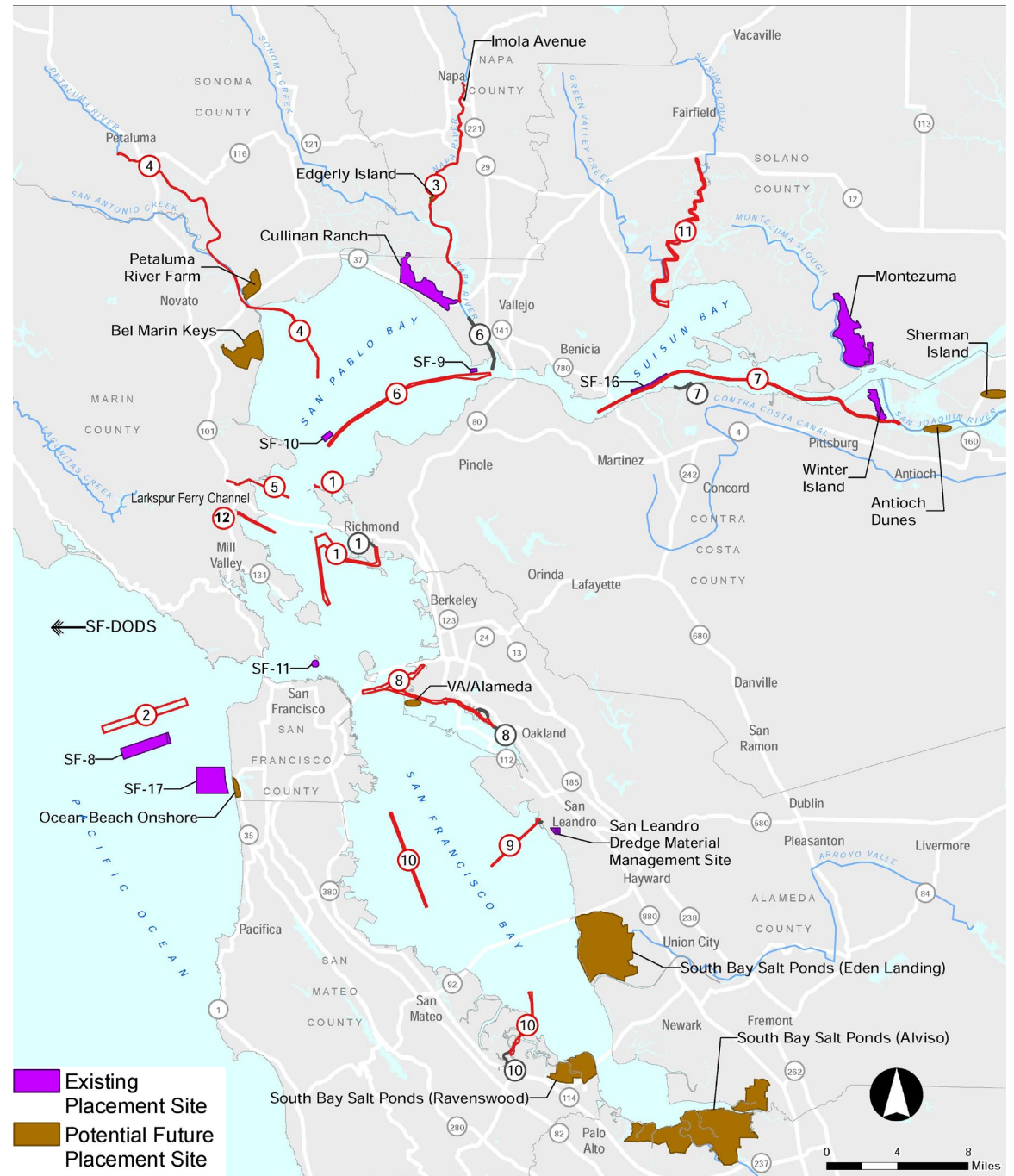
1. Richmond Harbor
2. SF Harbor
6. San Pablo Bay & Mare Island Strait
7. Suisun Bay Channel
8. Oakland Harbor
10. Redwood City Harbor

Shallow Draft

3. Napa River
4. Petaluma River
5. San Rafael Creek
9. Jack Maltester Channel
11. Suisun Slough
12. Larkspur Ferry Channel

7 Placement Sites

- SF-8 San Francisco Bar
- SF-9 Carquinez Strait
- SF-10 San Pablo Bay
- SF-11 Alcatraz
- SF-16 Suisun Bay
- SF-17 Ocean Beach Nearshore Placement & Demonstration Site
- SF-DODS San Francisco Deep Ocean Disposal





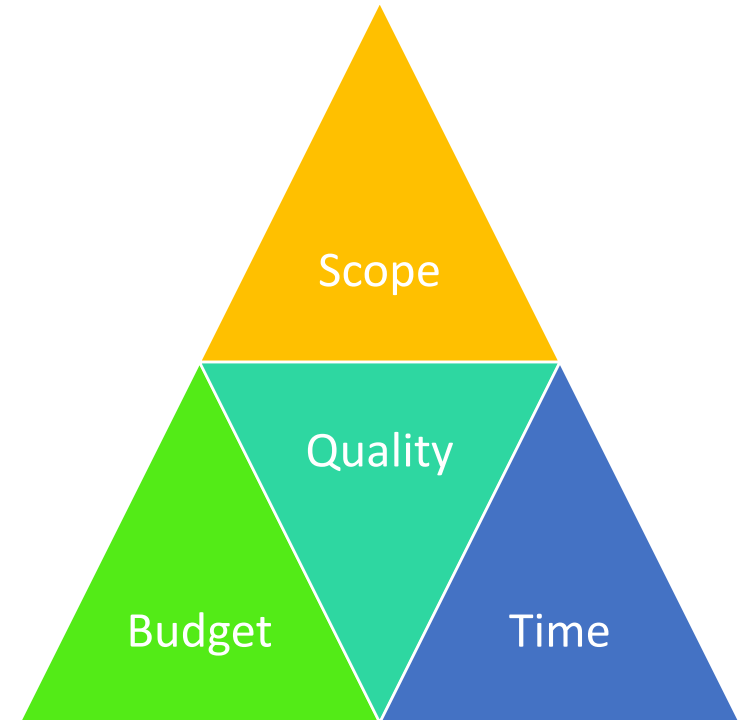
PROJECT MANAGEMENT PLAN (ROAD MAP)



The PMP serves as a guide and reference on:

- overall scope, schedule, and budget
- quality of work products
- changes to the project
- risks to project execution
- internal and external communications

This PMP is not intended to anticipate or include all possible changes to the project during execution. It is a dynamic "living" document that requires periodic update.





PROJECT MANAGEMENT PLAN TIMELINE



PMP TIMELINE





DMMP TASKS AND PRODUCTS



Draft-Final PMP:

- All comments addressed, internal review routing
- Refining science components that addressed the key concerns from charrettes:
 - ✓ Sediment Transport
 - ✓ Strategic Placement
 - ✓ Beneficial Reuse
- Parallel effort exploring improving entrainment science
- San Francisco District/ERDC literature review of past studies
- Develop scopes with ERDC to contract SFEI for support



2021 DREDGING PROGRAM



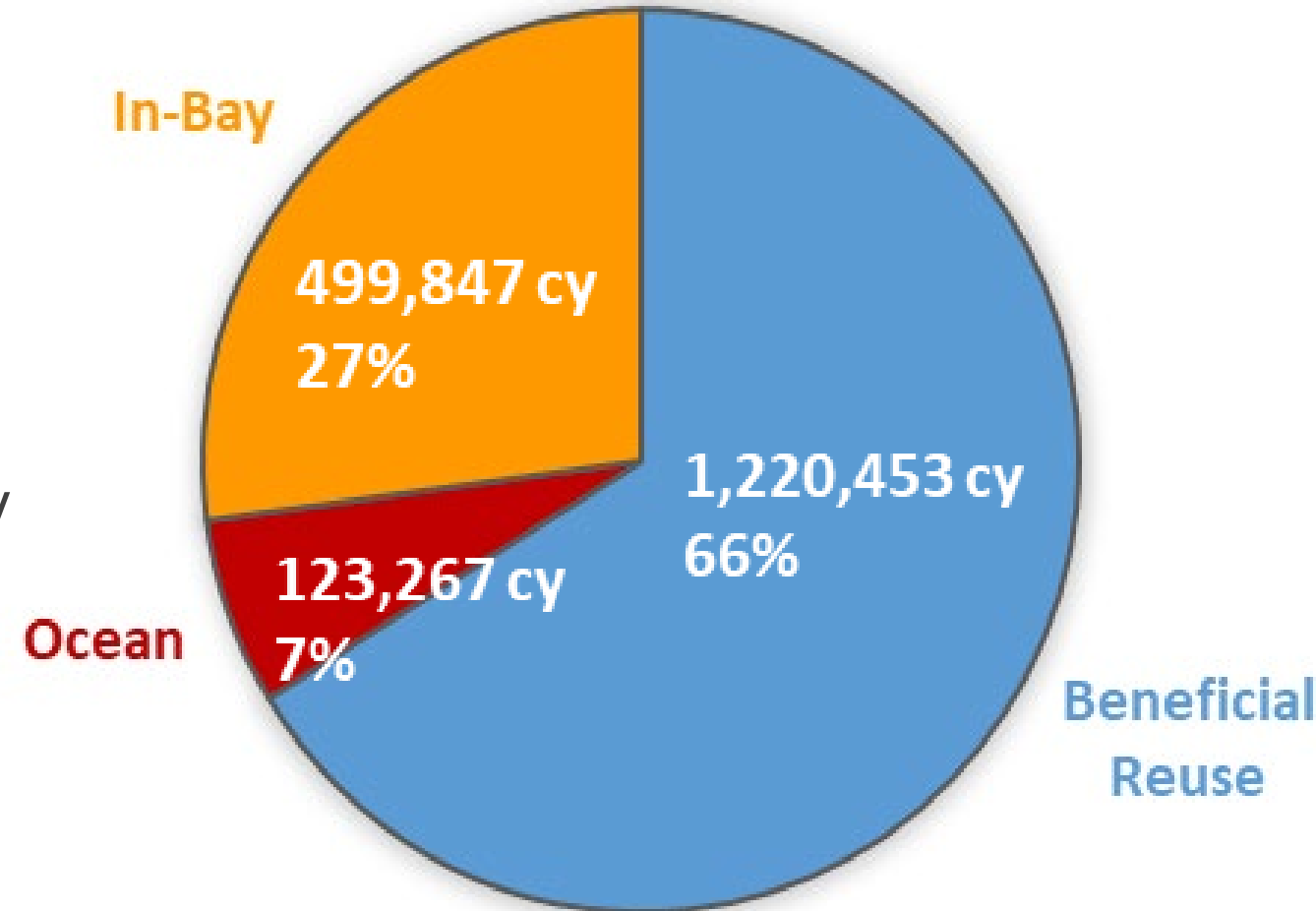


FY2019 DREDGE MATERIAL PLACEMENT



- Oakland Harbor – 807,947 cy to SF-DODS/Montezuma
- Pinole Shoal – 199,323 cy to SF-10
- Redwood City Harbor – 390,010 cy to SF-DODS/SF-11/Montezuma
- Richmond Inner Harbor – 303,656 cy to Cullinan Ranch/SF-DODS
- Suisun Bay Channel – 142,631 cy to Montezuma

•Total Dredge Volume: 1,843,567 cy



In-bay ~\$11 cy
Upland/DODS ~\$31 cy



CLOSING THOUGHTS



- RDMMP materials are posted at:
<https://www.spn.usace.army.mil/Missions/Projects-and-Programs/RDMMP>
- Post your comments at: CESPN-RDMMP@usace.army.mil