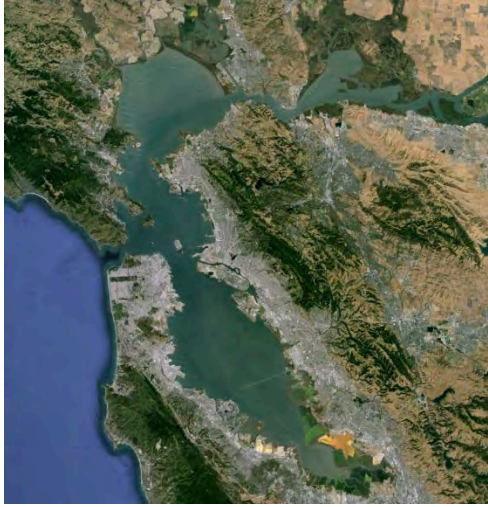
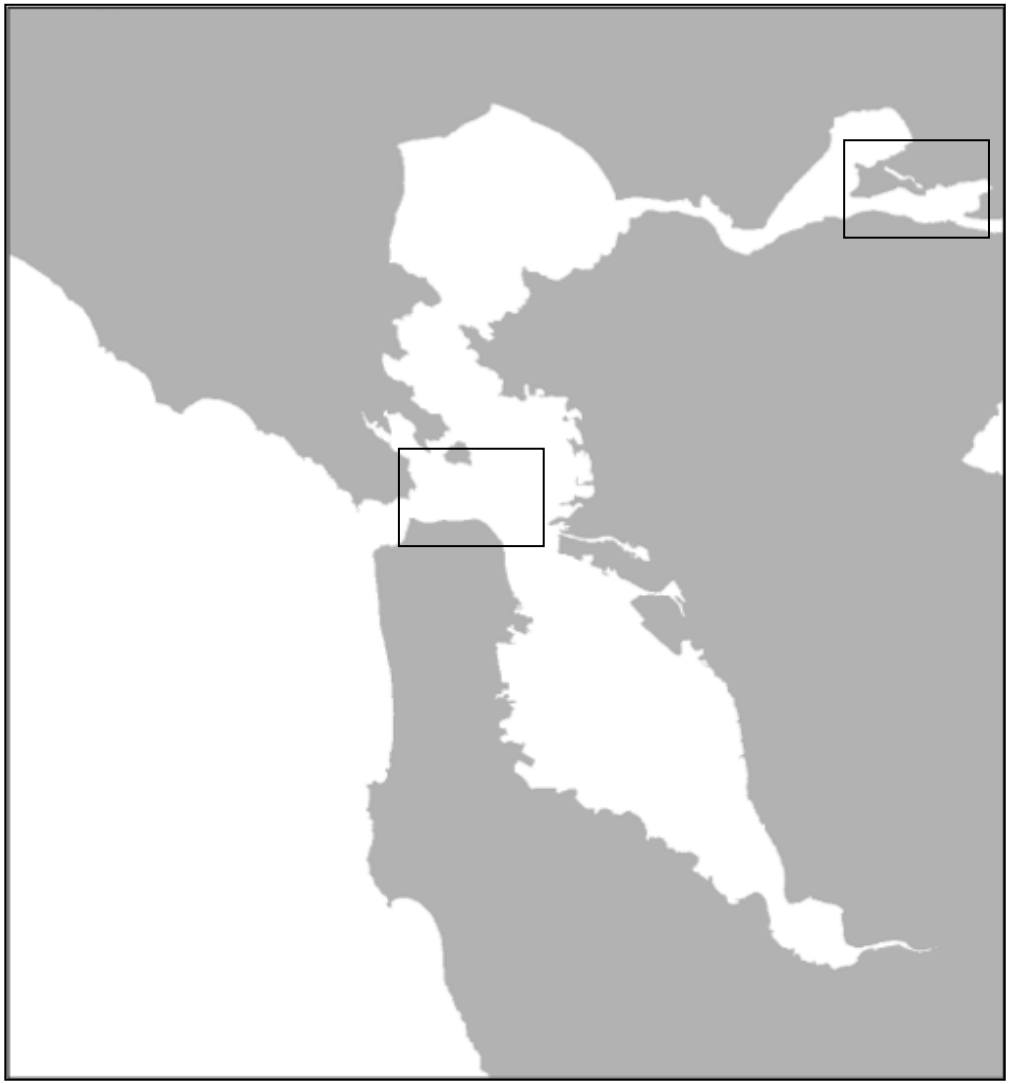


San Francisco Bay Sand Mining Staff Recommendation

April 16, 2015

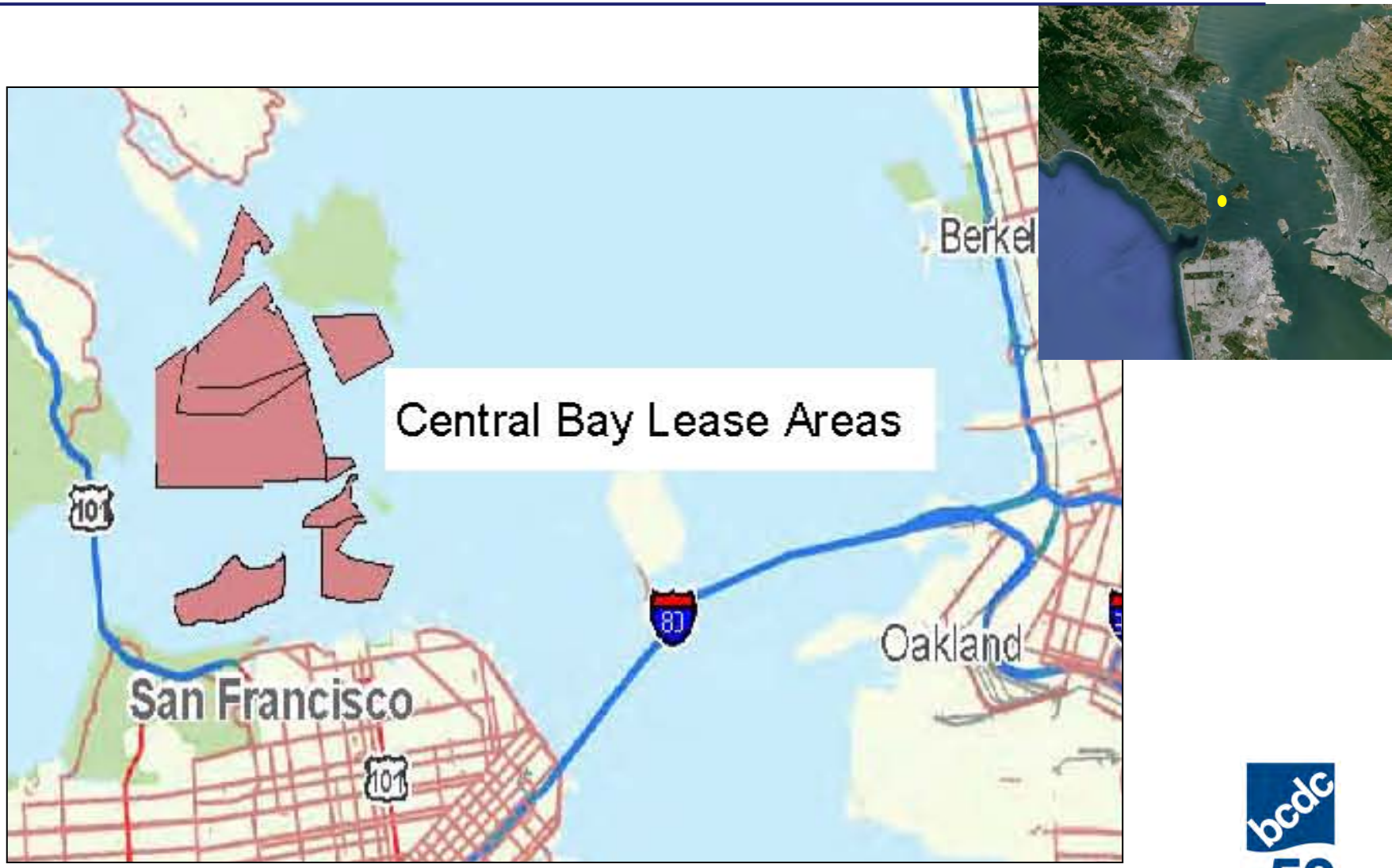
Bay Sand Mining Areas



Four Mining Applications

- Hanson Marine Operations – Central Bay (80 %)
- ~~Hanson Marine Operations – Middle Ground Shoal (2 %)~~
- Lind Marine – Middle Ground Shoal (7 %)
- Suisun Associations – Suisun Channel (13 %)

Bay Sand Mining Areas: Central Bay



Bay Sand Mining Areas: Suisun Bay

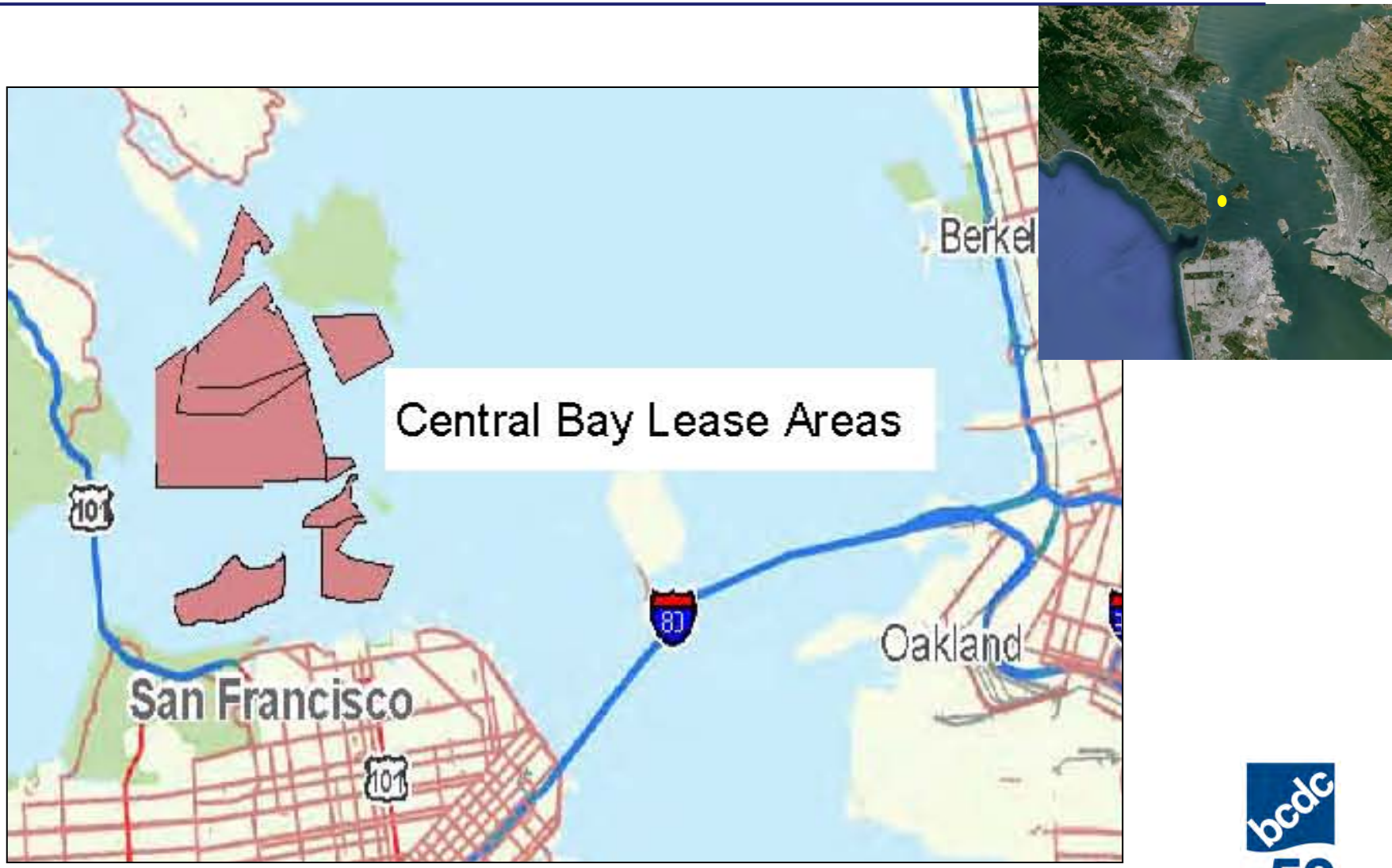
Total Mining Proposed Over Ten Years

- Total acres: 3,900
- Total proposed annual mining: 1.426 mcy (~~1.613~~ mcy)
- Proposed "peak" mining: 1.75 mcy (~~1.95~~ mcy)
- Total proposed mining: 14.26 mcy (~~16.13~~ mcy) over 10 years

Recommended Project

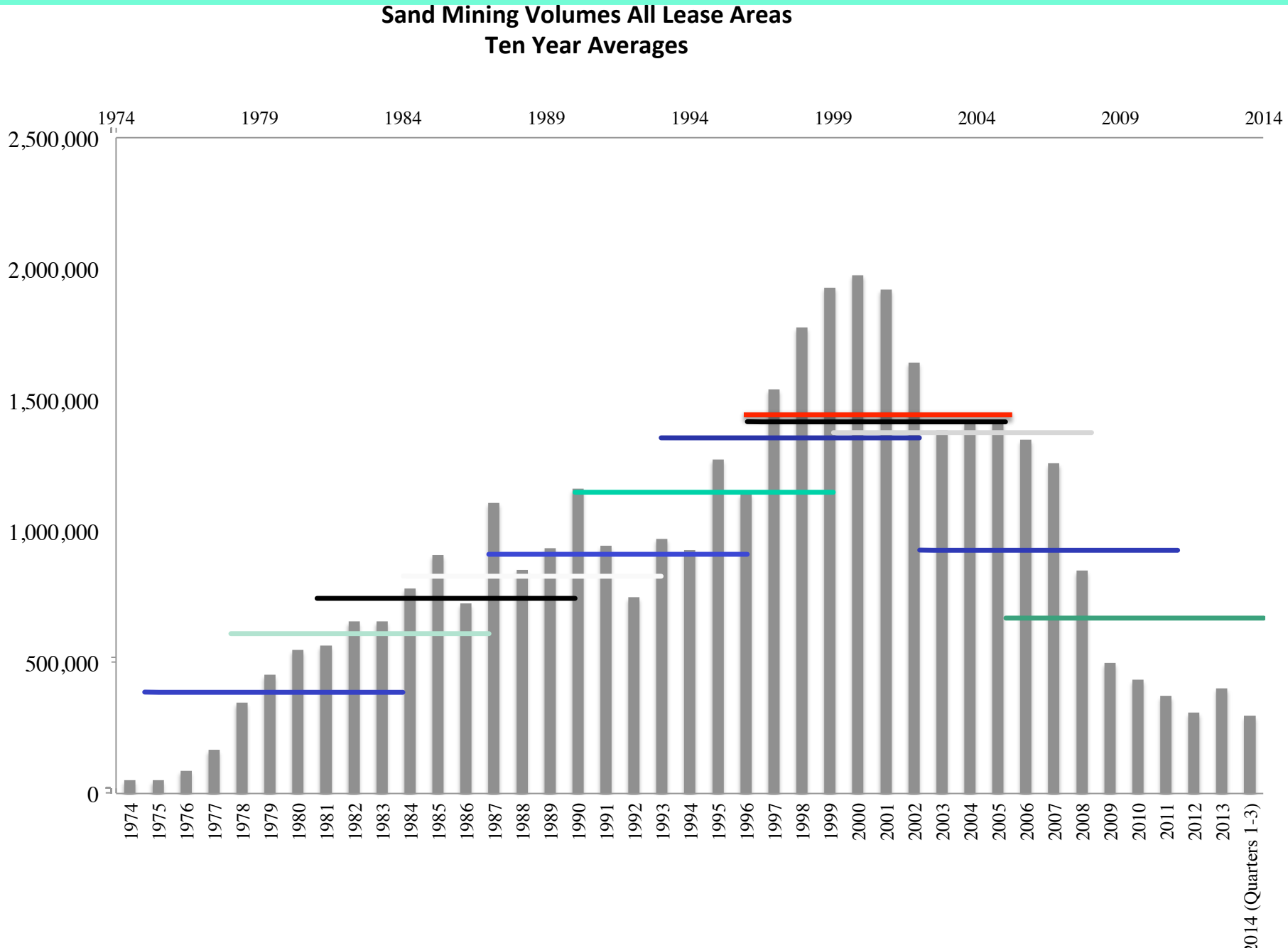
Applicant	Location	Area (Acres)	Proposed Annual Volume	Peak Years	Total Over Ten Years
Hanson	Central Bay	2,601	1.141 mcy	1.395 mcy	11.41 mcy
Lind Marine	Middle Ground Shoal	367	100,000 cy	120,000 cy	1.0 mcy
Suisun Associates	Suisun Channel	936	185,000 cy	235,000 cy	1.85 mcy

Bay Sand Mining Areas: Central Bay



Bay Sand Mining Areas: Suisun Bay

Mining History



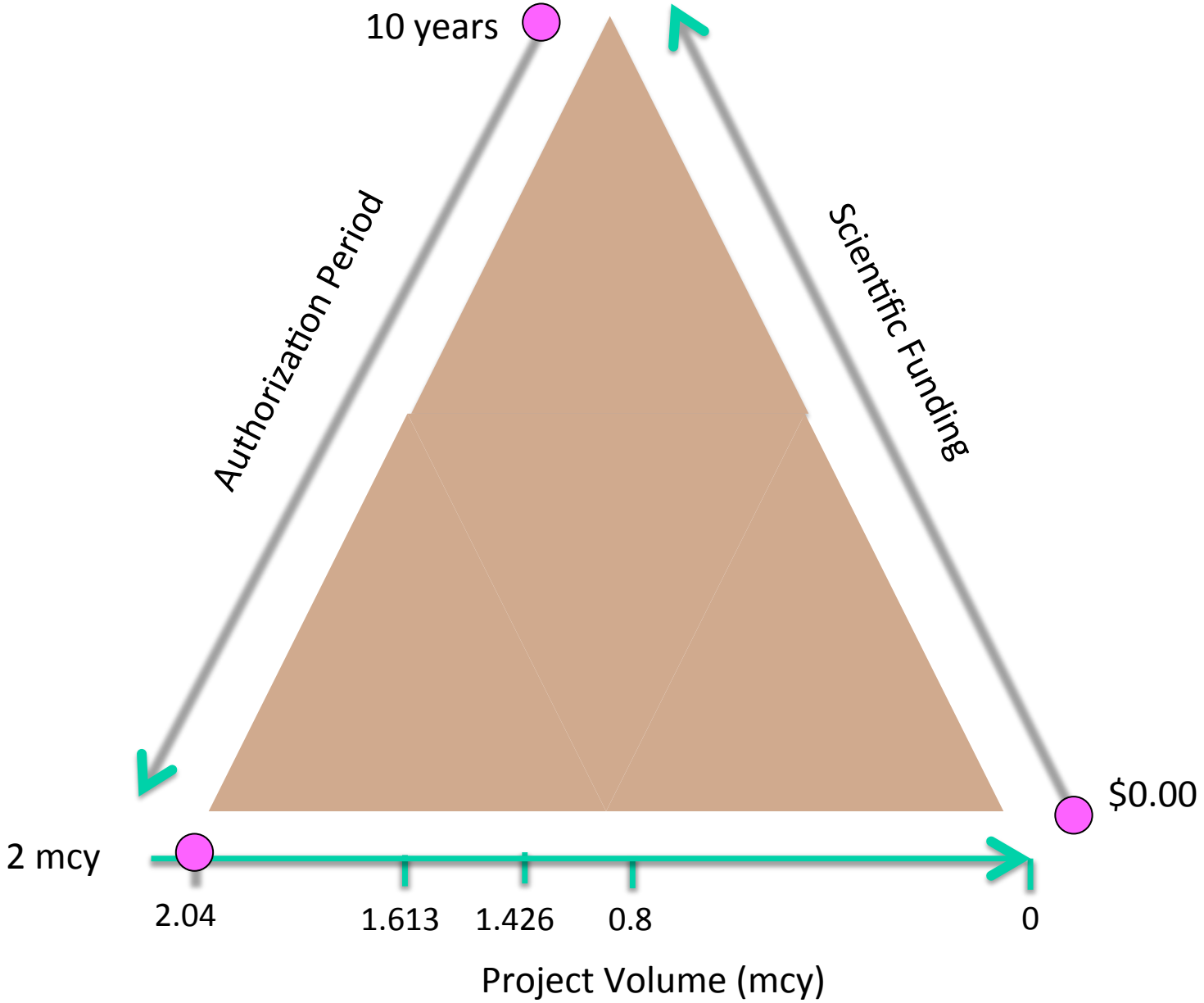
Long Term Average: 10 years

Ten Year Period	Average Volume
2005-2014	668,595 cy
2002-2011	927,239 cy
1999-2008	1,375,726 cy
1997-2006	1,442,834 cy
1996-2005	1,416,680 cy
1993-2002	1,355,749 cy
1990-1999	1,148,394 cy
1987-1996	911,841 cy
1984-1993	828,245 cy
1981-1990	743,865 cy
1978-1987	609,224 cy
1975-1984	385,691 cy

Long Term Average: 15 years

Fifteen Year Period	Average Volume
2000-2014	1,034,874 cy
1997-2011	1,317,396 cy
1994-2008	1,453,289 cy
1993-2007	1,461,406 cy
1991-2005	1,400,401 cy
1988-2002	1,315,812 cy
1985-1999	1,129,293 cy
1982-1996	919,269 cy
1979-1993	800,752 cy
1976-1990	663,289 cy

Uncertainty



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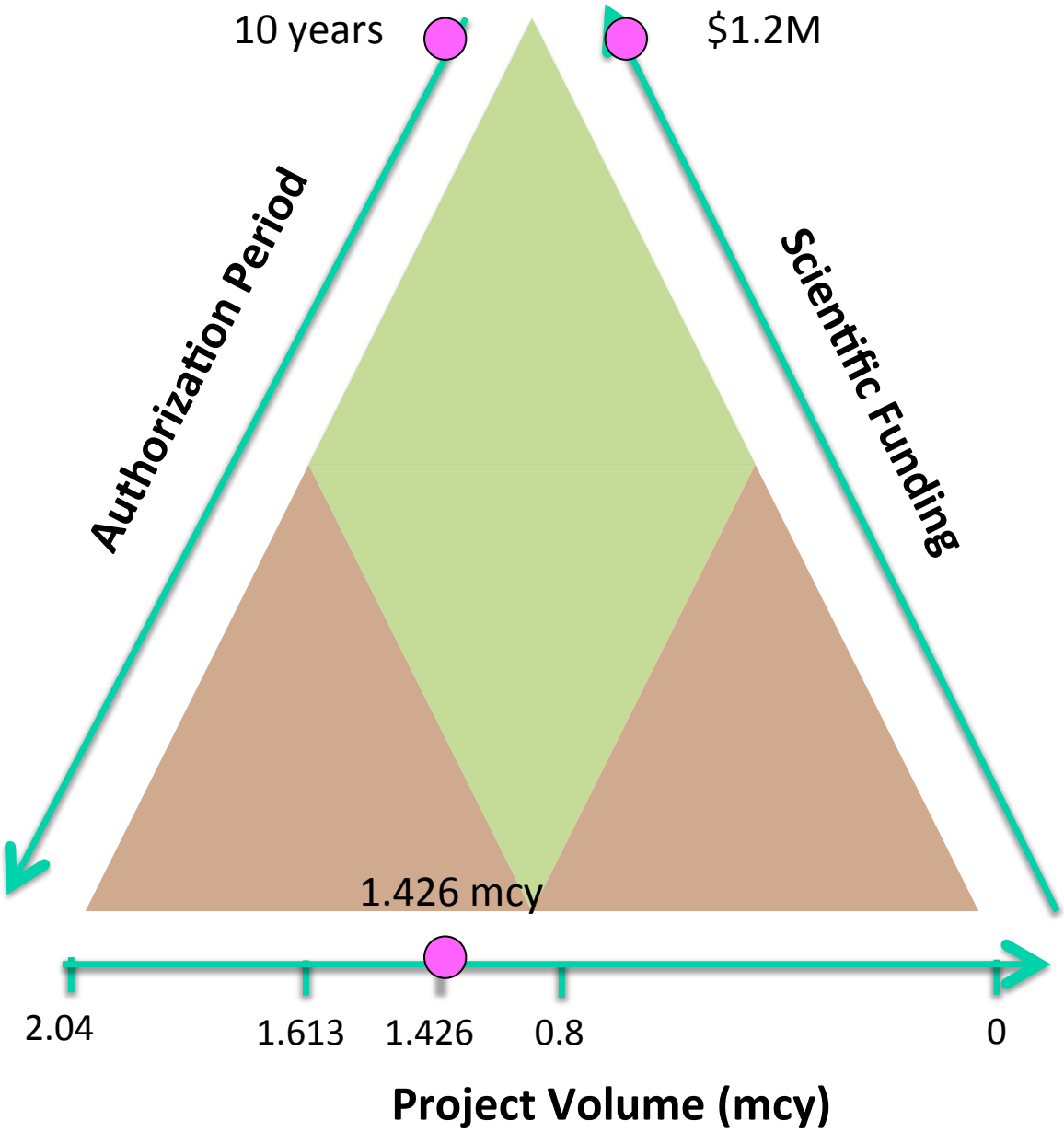
Increasing Certainty



(Not to scale)

Increasing Certainty

	2003 BCDC Authorized Volume	Requested 2013 Application	Water Board Approved	Resource Agency Biological Opinions	CEQA Reduced Project Alterative	2015 Amended Application	BCDC Staff Recommendation
Permit Length	5 years plus time extensions	10 years	10 years	10 years	NA	10 years	10 years
Total Volume	2.24 mcy	2.02 mcy	1.613 mcy	2.02 mcy	1.346 mcy	1.426 mcy	1.426 mcy
Peak Volumes	Not Requested	Not Requested	1.95 mcy	None	Not Evaluated	1.75 mcy	1.75 mcy
Additional Scientific Information/ Contribution	Bathymetric Change and mining tracking	Bathymetric Change and mining tracking	Effluent Study	Benthic Ecology Study			$1.2M for sand resource studies
Executive Director/ Commission Role	Amend or Revoke Permit	NA	NA	NA	NA	NA	Amend, Suspend or Revoke

Increasing Certainty

Type of Requirement	Special Condition	What's Required	Requiring Agency
Minimization Measures	**A:** Operations	Limits operations to those described and analyzed	CDFW, USFWS, NMFS, Water Board, and BCDC
	C: Volume Limits	Limits volume to be mined and describes peaks and averaging process	BCDC (others are greater volumes)
	E: Protection of Habitat and Species	Buffers, screening, pumping and clearing depths, water volume pumped	CDFW, USFWS, NMFS, Water Board, BCDC
	K: Navigation Safety and Hazardous substances	Provides for oil spill prevention planning and reduces hazards to navigation through USCG coordination	CDFW, Water Board, BCDC
Monitoring	**D:** Monitoring Resource Impacts	Requires bathymetric change analysis, tracking mining activity	SLC, NMFS, BCDC
	E: Protection of Habitat and Species	Designated biologist*, compliance monitoring, notification of take	CDFW*, USFWS, NMFS, BCDC
	F: Protection of Water Quality	Water Quality Certification, Self Monitoring Program, Cease Operations	Water Board, BCDC
	H: Reporting Mining Activity	Quarterly, Annual, and Tracking	SLC, CDFW, NMFS, BCDC
	J: Observe and Inspect	Allows researchers and agency representatives to observe and monitor mining activity	CDFW, BCDC

Increasing Certainty

Type of Requirement	Special Condition	What's Required	Requiring Agency
Mitigation	**E:** Protection of Habitat and Species	Mitigation credit, Contribution to Cal Recycle	SLC, CDFW, USFWS, NMFS, Water Board, BCDC
Study	**G**: Study areas of Uncertainty	Funding, Benthic Ecology,* Effluent, Technical Advisory Committees, Commission reports	NMFS, Water Board, BCDC
		Sand dynamics study,	BCDC
Limitations	**B:** Permit Duration	Limits period of project to ten years	SLC, CDFW, USFWS, NMFS, Water Board, BCDC
	I: Modify, Suspend or Revoke	When substantial impacts from mining are identified	Water Board, BCDC
	L: Property Interest	Requires renewed lease or invalidates permit	BCDC
	M: SMARA	Reclamation Plan consistent with State law	SMARA, BCDC
Commission Protections	**N & O:** Legal	Hold harmless, indemnifies and reduces Commission liability for court costs and legal fees	BCDC

* Benthic ecology study may be undertaken in Suisun if recommended by BETAC

Does the Commission Find the Proposed Projects Consistent with the McAteer Petris Act and the Bay Plan:

(1) Fish, Other Aquatic Organisms and Wildlife;

(2) Water Quality;

(3) Tidal Marsh and Tidal Flats;

(4) Subtidal Areas;

(5) Dredging;

(6) Recreation;

(7) Mitigation;

(8) Public Trust; and

(9) Navigational Safety and Oil Spill Prevention