

**AGENDA  
REGULAR MEETING OF THE BOARD OF COMMISSIONERS  
HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT**

**DATE:** July 10, 2014

**TIME:** 6:00 p.m. Executive Session  
7:00 p.m. Regular Session

**PLACE:** Woodley Island Marina Meeting Room

*The Meeting Room is wheelchair accessible. Accommodations and access to Harbor District meetings for people with other handicaps must be requested of the Director of Administrative Services at 443-0801 24 hours in advance of the meeting.*

**1. Call to Order at 6:00 p.m.**

- a. Move to Executive Closed Session pursuant to the provisions of the California Government Code Sections 54957(b)(1) (Public Employee Performance Evaluation) and 54956.9 (Threatened Litigation).
  1. Public Employee Performance Evaluations  
Director of Administrative Services, Director of Conservation, Director of Facility Maintenance, Director of Harbor Operations and Bar Pilot, and Bar Pilot; Classified Employees per the contract with the International Longshore and Warehouse Union, AFL-CIO Local 14, Unit A.
  2. Threatened Litigation  
Administrative Settlement Agreement for Response Costs – US Environmental Protection Agency Region IX

**2. Adjourn Executive Closed Session**

**3. Call to Order Regular Session at 7:00 P.M. and Roll Call**

**4. Pledge of Allegiance**

**5. Report on Executive Session**

**6. Public Comment**

*Note: This portion of the Agenda allows the public to speak to the Board on the various issues not itemized on this Agenda. A member of the public may also request that a matter appearing on the Consent Calendar be pulled and discussed separately. Pursuant to the Brown Act, the Board may not take action on any item that does not appear on the Agenda. Each speaker is limited to speak for a period of three (3) minutes regarding each item on the Agenda. Each speaker is limited to speak for a period of three (3) minutes during the PUBLIC COMMENT portion of the Agenda regarding items of special interest to the public not appearing on the Agenda that are within the subject matter jurisdiction of the Board of Commissioners. The three (3) minute time limit may not be transferred to other speakers. The three (3) minute time limit for each speaker may be extended by the President of the Board of Commissioners or the Presiding Member of the Board of Commissioners at the regular meeting of the District. The three (3) minute time limit for each speaker may be enforced by the President of the Board of Commissioners or the Presiding Member of the Board of Commissioners at the regular meeting of the District.*

**7. Consent Calendar**

*Note: All matters listed under the Consent Calendar are considered to be routine by the Board of Commissioners and will be enacted by one motion. There will be no separate discussion of these items. If discussion is required, that item will be removed from the Consent Calendar and considered separately.*

**8. Communications and Reports**

- a. Chief Executive Officers Report
- b. Staff Reports
- c. District Counsel and District Planner Reports
- d. Commissioner and Committee Reports
- e. Other
  - Albert Lemus (by phone) – Update on New Markets Tax Credit program

## **Agenda for July 10, 2014 Regular Board Meeting**

### **9. Unfinished Business**

- a. Second Reading and Adoption of FY 2014/15 Budget.

### **10. New Business**

- a. Consideration of approval of administrative contracts for Director of Administrative Services, Director of Conservation, Director of Facilities Maintenance, Director of Harbor Operations and Bar Pilot, and Bar Pilot.
- b. Consideration of Permit and Agreement to Operate a Charter Service with Silver Star Sportfishing LLC dba *Silver Star Sportfishing*.
- c. Consideration of legal services with Nixon Peabody for a yet to be formed nonprofit organization that will be the New Markets Tax Credit qualified borrower.
- d. Consideration of accounting services with Novogradac & Company for financial consulting for New Market Tax Credit program.
- e. Consideration of release of RFP for leases for the Humboldt Bay Mariculture Pre-Permitting Project.
- f. Consideration of adopting Resolution No. 2014-08, a Resolution Adopting an Initial Study with a Mitigated Negative Declaration and Adopting a Mitigation Monitoring and Reporting Program for the Humboldt Bay Water Trails Project.
- g. Consideration of Humboldt Bay Water Trails Project CEQA Documents (SCH #2014052065) for Adoption.

### **11. Administrative and Emergency Permits**

### **12. Adjournment**

# Humboldt Bay Harbor,

9a

## Recreation and Conservation

### District

# SECOND READING AND ADOPTION FY 2014/15 BUDGET

	SUMMARY OF 2014-15 BUDGET		
	GENERAL	MARINA	TOTAL
REVENUE	\$11,900,297	\$976,700	\$12,876,997
OPERATING EXPENSES	\$1,666,410	\$512,290	\$2,178,700
NON-OPERATING EXPENSES (Capital Expenses, Debt Pmt)	\$8,852,890	\$446,686	\$9,299,576
EXCESS REVENUES OVER(UNDER) EXPENSES	\$1,380,997	\$17,724	\$1,398,721
DEDUCT SINGLE-USE REVENUES (WIM Dredge Surchg/Float Replace	\$0	(\$170,000)	(\$170,000)
TOTAL BUDGET BALANCE	\$1,380,997	(\$152,276)	\$1,228,721

## REVENUE

				<u>2014-15 Proposed Budget</u>				
	<u>2012-13</u>	<u>2013-14</u>	<u>2013-14</u>					
Line #	<u>Actual Audited</u>	<u>Budget</u>	<u>Projected</u>	<u>General</u>	<u>Marina</u>	<u>TOTAL</u>	<u>% of Total</u>	
	<b><u>Revenue</u></b>							
R1	Tax Revenue	\$ 932,115	\$ 880,000	\$ 880,000	\$ 792,000	\$ 88,000	\$ 880,000	6.8%
R2	Sales & Permits	\$ 13,536	\$ 15,000	\$ 16,608	\$ 1,500	\$ 15,100	\$ 16,600	0.1%
R3	Harbor Surchg	\$ 57,696	\$ 97,028	\$ 97,028	\$ 97,028	\$ -	\$ 97,028	0.8%
R4	Pilotage Tariff	\$ 59,430	\$ 61,294	\$ 61,294	\$ 61,294	\$ -	\$ 61,294	0.5%
R5	Slip Rents	\$ 482,293	\$ 533,222	\$ 506,280	\$ -	\$ 525,000	\$ 525,000	4.1%
R6	Trans Rental	\$ 63,105	\$ 76,424	\$ 50,464	\$ -	\$ 51,000	\$ 51,000	0.4%
R7	WIM Dredge Srchg	\$ 69,843	\$ 104,322	\$ 101,974	\$ -	\$ 102,000	\$ 102,000	0.8%
R8	WIM Float Replace	\$ -	\$ 69,548	\$ 67,654	\$ -	\$ 68,000	\$ 68,000	0.5%
R9	WIM Electrical	\$ 13,753	\$ 80,000	\$ 45,040	\$ -	\$ 80,000	\$ 80,000	0.6%
R10	Fields Landing	\$ 105,737	\$ 159,300	\$ 116,952	\$ 175,000	\$ -	\$ 175,000	1.4%
R11	Redwood Dock/Berth 1	\$ 23,866	\$ 50,000	\$ 26,340	\$ 131,000	\$ -	\$ 131,000	1.0%
R12	Redwood Terminal 2 /Berth 2	\$ -	\$ 227,600	\$ -	\$ 2,400,000	\$ -	\$ 2,400,000	18.6%
R13	Rents	\$ 160,958	\$ 160,000	\$ 206,266	\$ 150,000	\$ 35,000	\$ 185,000	1.4%
R14	Tideland Leases	\$ 162,118	\$ 175,572	\$ 146,690	\$ 210,000	\$ -	\$ 210,000	1.6%
R15	Late Fees/Int	\$ 11,254	\$ 12,000	\$ 15,672	\$ 3,075	\$ 12,600	\$ 15,675	0.1%
R16	Other Revenue	\$ 56,931	\$ 55,000	\$ 29,129	\$ 5,000	\$ -	\$ 5,000	0.0%
R17	Interest	\$ 7,760	\$ 20,000	\$ 19,946	\$ 20,000	\$ -	\$ 20,000	0.2%
R18	Grant Revenue	\$ 933,427	\$ 2,739,500	\$ -	\$ 295,000	\$ -	\$ 295,000	2.3%
R19	Cap. Exp. Loan	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	0.0%
R20	New Mkts Tax Credits	\$ -	\$ -	\$ -	\$ 5,100,000	\$ -	\$ 5,100,000	39.6%
R21	Borrowed Funds	\$ -	\$ 700,000	\$ -	\$ -	\$ -	\$ -	
R22	Coast Seafoods Loan	\$ -	\$ -	\$ -	\$ 1,250,000	\$ -	\$ 1,250,000	9.7%
R23	Brownfields Grant	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000	1.9%
R24	TIGER Grant	\$ -	\$ -	\$ -	\$ 959,400	\$ -	\$ 959,400	7.5%
R25	<b>Total Revenue</b>	<b>\$ 3,173,822</b>	<b>\$ 6,215,810</b>	<b>\$ 2,387,337</b>	<b>\$ 11,900,297</b>	<b>\$ 976,700</b>	<b>\$ 12,876,997</b>	<b>100.0%</b>

## OPERATING EXPENSES

Line #				2014-15 Proposed Budget			% of Total	
	2012-13 <u>Actual Audited</u>	2013-14 <u>Budget</u>	2013-14 <u>Projected</u>	<u>General</u>	<u>Marina</u>	<u>TOTAL</u>		
	<b><u>EXPENSES</u></b>							
E1	Salaries/Wages	\$ 702,209	\$ 749,919	\$ 723,018	\$ 620,500	\$ 109,500	\$ 730,000	33.5%
E2	Commish Fees	\$ 25,200	\$ 25,200	\$ 25,200	\$ 25,200		\$ 25,200	1.2%
E3	Cntrct Temp Serv	\$ 20,089	\$ 3,000	\$ 16,000		\$ 3,000	\$ 3,000	0.1%
E4	Auto Value	\$ 705	\$ 700	\$ 147	\$ -	\$ -	\$ -	0.0%
E5	Payroll Burden	\$ 324,063	\$ 367,905	\$ 358,216	\$ 306,000	\$ 54,000	\$ 360,000	16.5%
E6	Advert/Promotion	\$ 5,014	\$ 7,000	\$ 2,200	\$ 3,500	\$ 3,500	\$ 7,000	0.3%
E7	Automotive	\$ 28,572	\$ 27,000	\$ 20,868	\$ 24,000	\$ 7,000	\$ 31,000	1.4%
E8	Communications	\$ 11,530	\$ 14,000	\$ 14,126	\$ 5,460	\$ 8,540	\$ 14,000	0.6%
E9	Conference/Mtgs	\$ 27,350	\$ 26,000	\$ 26,000	\$ 25,000	\$ 3,000	\$ 28,000	1.3%
E10	Dues/Subs	\$ 32,248	\$ 29,000	\$ 32,572	\$ 29,000	\$ 5,000	\$ 34,000	1.6%
E11	Elect/Gov. Fees	\$ 25,056	\$ 45,000	\$ 45,000	\$ 20,000	\$ 5,000	\$ 25,000	1.1%
E12	Insurance	\$ 50,186	\$ 84,365	\$ 84,365	\$ 72,500	\$ 12,500	\$ 85,000	3.9%
E13	Office Expense	\$ 63,934	\$ 41,000	\$ 41,000	\$ 25,000	\$ 16,000	\$ 41,000	1.9%
E14	Oper Supplies	\$ 6,230	\$ 7,000	\$ 7,000	\$ 1,500	\$ 5,500	\$ 7,000	0.3%
E15	Security Guards	\$ 90,417	\$ 40,000	\$ 56,272	\$ -	\$ -	\$ -	0.0%
E16	Legal Services	\$ 31,883	\$ 50,000	\$ 50,000	\$ 42,400	\$ 10,600	\$ 53,000	2.4%
E17	Accounting/Audit	\$ 27,452	\$ 31,000	\$ 31,000	\$ 25,000	\$ 6,000	\$ 31,000	1.4%
E18	District Planner	\$ -	\$ -	\$ 35,000	\$ 60,000	\$ -	\$ 60,000	2.8%
E19	Prof/Outsd Servcs	\$ 104,244	\$ 60,000	\$ 60,000	\$ 118,350	\$ 13,150	\$ 131,500	6.0%
E20	Utilities	\$ 221,450	\$ 125,000	\$ 210,340	\$ 30,000	\$ 190,000	\$ 220,000	10.1%
E21	Maintenance Exp	\$ 91,452	\$ 80,000	\$ 89,362	\$ 30,000	\$ 60,000	\$ 90,000	4.1%
E22	Fields Lndng Exp.	\$ 44,134	\$ 35,000	\$ 64,428	\$ 45,000	\$ -	\$ 45,000	2.1%
E23	Shelter Cove Exp	\$ 21,756	\$ 25,000	\$ 27,036	\$ 25,000	\$ -	\$ 25,000	1.1%
E24	King Salmon Exp	\$ 646	\$ 2,000	\$ 150	\$ 2,000	\$ -	\$ 2,000	0.1%
E25	Redwood Dock/Berth 1 exp	\$ 21,348	\$ 22,000	\$ 3,000	\$ 35,000	\$ -	\$ 35,000	1.6%
E26	Terminal 2/Berth 2	\$ -	\$ 215,400	\$ 228,671	\$ 80,000	\$ -	\$ 80,000	3.7%
E27	Int/FeeExpense	\$ 11,649	\$ 10,000	\$ 15,672	\$ 16,000	\$ -	\$ 16,000	0.7%
E28	Grant Expense	\$ 543,410	\$ 739,500	\$ 457,844	\$ -	\$ -	\$ -	0.0%
E29	Equity Line Loan		\$ 30,000	\$ -	\$ -	\$ -	\$ -	0.0%
E30	<b><u>TOTAL OPERATING EXPENSES</u></b>	<b>\$ 1,977,168</b>	<b>\$ 2,891,989</b>	<b>\$ 2,724,487</b>	<b>\$ 1,666,410</b>	<b>\$ 512,290</b>	<b>\$ 2,178,700</b>	<b>100.00%</b>



## NON-OPERATING EXPENSES

### CAPITAL EXPENDITURES

		2012-13	2013-14	2014-15 Proposed Budget		
Line #	<b>CAPITAL EXPENDITURES</b>					
		<u>Actual Audited</u>	<u>Budget</u>	<u>General</u>	<u>Marina</u>	<u>TOTAL</u>
NOE1	WI Facility Improvmt	\$ 164,684	\$ 56,500	\$ -	\$ 96,000	\$ 96,000
NOE2	Dredging Expenses	\$ -	\$ -	\$ 50,000	\$ 50,000	\$ 100,000
NOE3	FL Boat Yard		\$ 45,500	\$ 60,000	\$ -	\$ 60,000
NOE4	Marine Term Impr	\$ 42,975	\$ 35,000	\$ 150,000	\$ -	\$ 150,000
NOE5	Harbor Improvmt		\$ -	\$ 80,000	\$ -	\$ 80,000
NOE6	Property Acquisition	\$ 35,000	\$ 350,000	\$ -	\$ -	\$ -
NOE7	Property Improvement		\$ 2,220,000	\$ 6,845,900	\$ -	\$ 6,845,900
NOE8	Rec Enhance		\$ 10,000	\$ 40,000	\$ -	\$ 40,000
NOE9	Cons Enhance	\$ 60,140	\$ -	\$ -	\$ -	\$ -
NOE10	Auto/Operating Equip	\$ 310,020	\$ 6,000	\$ 150,000	\$ 150,000	\$ 300,000
NOE11	Office Equipment	\$ 14,304	\$ -	\$ 5,000	\$ 5,000	\$ 10,000
NOE12	<b>TOTAL CAPITAL EXPENDITURES</b>	<b>\$ 627,123</b>	<b>\$ 2,723,000</b>	<b>\$ 7,380,900</b>	<b>\$ 301,000</b>	<b>\$ 7,681,900</b>

### DEBT PAYMENTS

		2012-13	2013-14	2013-14 Proposed Budget		
	<b>DEBT PAYMENTS</b>					
		<u>Actual Audited</u>	<u>Budget</u>	<u>General</u>	<u>Marina</u>	<u>TOTAL</u>
NOE13	Cal Boating Loan	\$ -	\$ 99,366		\$ 99,366	\$ 99,366
NOE14	Deepening Loan	\$ 211,257	\$ 214,303	\$ 215,162		\$ 215,162
NOE15	Elect.Mtr. Loan Pmt		\$ 38,400	\$ -	\$ 46,320	\$ 46,320
NOE16	Forklift Loan Pmt	\$ -	\$ -	\$ 6,828	\$ -	\$ 6,828
NOE17	Coast Seafood Repay	\$ -	\$ -	\$ 1,250,000	\$ -	\$ 1,250,000
NOE20	<b>TOTAL DEBT PAYMENTS</b>	<b>\$ 211,257</b>	<b>\$ 313,669</b>	<b>\$ 1,471,990</b>	<b>\$ 145,686</b>	<b>\$ 1,617,676</b>

## NARRATIVE FOR FY 2014/15 BUDGET

### REVENUE

#### **R1 - Tax Revenue**

Estimated income received from County of Humboldt - District's portion of property taxes paid to County.

#### **R2 - Sales and Permits**

General - Estimated income from permit fees.

Marina - Estimated income from coin-operated showers, washers, and dryers, vending machines, ice machine, liveaboard inspection fees, and forklift fees.

#### **R3 - Harbor Surcharge**

Anticipated revenues to be generated by Harbor Improvement Surcharge.

#### **R4 - Pilotage Tariff**

Anticipated revenues to be generated by Bar Pilot services.

#### **R5 - Slip Rentals**

Marina - Estimated income from the rental of slips at the Marina. For the FY2014/15, slip rentals for flupsy use will be introduced.

#### **R6 - Transient Rentals**

Marina - Estimated income from the rental of transient slips at the Marina.

#### **R7 - WIM Maintenance Dredging Surcharge**

Charge assessed toward future maintenance dredging of Woodley Island Marina. Revenue from this fee transferred directly to Woodley Island Marina Maintenance Dredge Cash Designation.

#### **R8 - WIM Float Replace**

Charge for all tenants/transients of Woodley Island Marina deposited into a fund designated specifically for dock/float replacement. Revenue from this fee will be transferred directly to Woodley Island Marina Float Replacement Cash Designation.

#### **R9 - WIM Electrical**

Revenue received from the metering of electrical use by Woodley Island Marina tenants.

#### **R10 - Fields Landing**

Revenue received from storage (boats and trailers) utilities, forklift, and equipment rentals, building space rent, and Travelift haul out fees and usage. A new revenue source is the lease for yard and building space to Zerlang & Zerlang Marine Services.

#### **R11 - Redwood Dock/Berth 1**

Revenue received from building space rent/terminal lease/wharfage and dockage. Additional revenue for FY 2014/15 to be received from increased dock use/forklift fees, unloading live crab, building lease (seafood company) and the installation of a fuel dock. Additional buildings used for storage of crab pots.

#### **R12 - Redwood Terminal 2/Berth 2**

Revenue estimated to be received from the tenants of this property: Taylor Mariculture, DG Power, Energistycs, Inc. and others. Also, \$50,000 is estimated for the sale of surplus equipment from the upland property and from the sale of the boiler (\$2,000,000).

**R13 - Rents**

Money to be received by the District for rents and concessions as follows: Café Marina Restaurant; Office Space; and work yard rent on Woodley Island. Additionally, a storage area on Woodley Island for trailers has been designated and will be available from May 1 – September 30.

For FY 2014/15, expanded storage area (\$15,000), cold storage (\$10,000), revenue from building/area to freeze/package fish and small boat/kayak rack rentals will be explored.

**R14 - Tideland Leases**

Money to be received by the District for tidelands leases held throughout the Humboldt Bay area. Additional mariculture leases will be added in 2015/16.

**R15 - Late Fees and Interest on Delinquent Accounts**

Late fees and interest collected on delinquent accounts.

**R16 - Other Revenue**

Revenue received from Coast Seafoods for gallonage fees as a condition of their tideland lease, Secretariat Services for Harbor Safety Committee, Chevron's payment for the PORTS O&M costs, other government agencies and miscellaneous operating and non-operating revenue. Also monies anticipated to be received for support of fire boat operation and maintenance.

**R17 - Interest**

Interest earned by the District on monies presently deposited in the Humboldt County Treasury.

**R18 - Grant Revenue**

Monies received from grant-funded projects expected to be received in FY 2014/15; anticipated grant (\$40,000) for Shelter Cove fish carcass freezer, solid waste separator and sewer collector; EDA planning grant for Redwood Terminal 2 (\$155,000) and CDBG planning grant for Redwood Terminal 2.

**R19 - Capital Expenditure Loan**

Monies borrowed in FY 2012/13 to finance the dock electrical meters for Woodley Island Marina.

**R20 - New Markets Tax Credits**

Monies acquired for asset purchase and improvements..

**R 21 – Borrowed Funds**

No monies anticipated to be borrowed other than those funds already itemized in other line items of this budget.

**R22 – Coast Seafoods Loan**

Monies borrowed from Coast Seafoods Company to pay for the trucking of the liquors from Redwood Terminal 2.

**R23 – Brownfields Grant**

Monies received for the cleanup of the Redwood Terminal 2 property.

**R24 – TIGER Grant**

Monies received for the planning and permitting pertaining to the Samoa Industrial Waterfront Transportation Access Plan.



**EXPENSES**

**E1 - Salaries and Wages**

Salaries and wages paid to Harbor District employees. Includes the addition of two (2) Harbor Maintenance Worker 1.

**E2 - Commissioners Fees**

Fees paid for the service of Commissioners on the Board.

**E3 - Contract Temporary Services**

Expenses paid for additional temporary services as needed.

**E4 - Payroll Burden**

Payroll Burden consists of employer-paid taxes and employer-paid benefits and insurances provided for in the District's Personnel Policy. The Employer Contribution Rate for PERS for FY 14/15 is 10.682%.

**E5 – Auto Value** – No expenses for FY 2014/15

**E6 - Advertising and Promotion**

General - Allocation for the printing of legal notices in the local newspapers required by laws and permit procedures of the State and the District. This line item also funds the printing and distribution of notices to inform the public of special interest items concerning the District's meeting and projects. There is also an amount included for the publication and for additional port, Marina and District marketing and promotional materials.

Marina – Allocation for the printing of notices, newsletters, Marina advertisements etc. to inform the Marina tenants and/or the general public of items which may be of special interest to them.

**E7 - Automotive Expense**

Cost of maintaining and fueling the District's automobiles, vessels, electric trucks, security vehicles, forklift, and other operating equipment.

**E8 - Communications**

Telephones and Cell Phones - This amount includes the costs for the FAX, modem, E-mail and Website hosting, offsite Web link, wifi and cell phones.

**E9 - Conferences & Meetings**

Approves travel expenses for attendance at the following up to the total budget amount: (4) CMANC conferences; (3) CAPA conferences; (1) California Maritime Leadership Symposium; (3) legislative trips to Sacramento and Washington DC; (1) CSDA training conference, (4) Pacific Coast Congress of Harbor Masters, (2) Northern Area Port Security meetings, (4) Conservation-related meetings; and (2) safety seminars in order to maintain discounted Workers Compensation premiums. \$2,000 has been allocated to the Economic Development Committee for necessary meeting expenses. Additional conferences or travel that would exceed the budget require individual approval by the Board.

**E10 - Dues & Subscriptions**

This category includes dues for membership in the following organizations: California Marine Affairs and Navigation Conference, California Association of Port Authorities, California Special District Association, Association of California Water Agencies, Pacific Coast Congress of Harbor Managers and Port Masters, California Association of Harbor Masters and Port Captains, Fishing News, Pacific Fishing, Costco and various other subscriptions. Dues/Subscription costs vary by a variety of factors and amounts shown are estimated. Dues and subscriptions expenses that would exceed the budget require individual approval by the Board of Commissioners.

**E11 - Elections and Fees Paid to Other Governmental Entities**

There are no Board seats slated for election for the District in FY 2014/15.

**E12 - Insurance**

The Special Districts Risk Management Authority (SDRMA) policy combines several of the individual property, liability, bonds and other miscellaneous policies into one, plus the Marina Operator's Liability policy. SDRMA reported there will be no increase in the base rate for Property/Liability and Workers Compensation policies for FY 2013/14. There will be a decrease in the Workers Comp experience modification from 173% to **129% for 2014/15, which equates to an**

**approximate \$7,000 decrease in annual premiums.** The CAPA excess insurance through AON Risk Services is still in order. The District's Fireboat and Port Security/Work boat are insured through Poseidon Insurance. Insurance for Redwood Terminal 2 is also included. Insurance expenses that would exceed the budget require individual approval by the Board of Commissioners.

**E13 - Office Expense**

Expenses include office supplies, postage and other expenses necessary for the operation of the office.

**E14 - Operating Supplies**

Expenses for janitorial supplies.

**E15 – Security Guards** – No expenses for FY 2014/15.

**E16 - Legal Services**

Fees paid to District Counsel Paul Brisso for work in connection with the Woodley Island Marina and to do District legal work to draw up ordinances, permits, agreements, leases etc. between the District and other agencies/entities, attend Commissioner meetings and all other general legal and litigation work needed by the District. Also included are legal services associated with the purchase of the Freshwater Tissue Company property. This category includes a 6% increase.

**E17 - Accounting/Auditing Services**

Fees paid for the services of District Treasurer Mark Wetzel for service in a controllership capacity, supervision of bookkeeping functions, statements and reports and monitoring all District cash transactions. Fees paid to independent accounting firm to perform the District's annual certified audit.

**E18 - District Planner Services**

Fees paid for the services of District Planner George Williamson for service in all aspects of planning associated with District projects.

**E19 - Professional/Outside Services**

Excess Liability Insurance broker fees (\$10,000) split between CAPA ports. Administrative Fee costs for BNY Mellon loan for Harbor Deepening Project. This account also includes funds for website revision, appraisal services, engineering and environmental consultant services required that have not been covered in any other category. Professional services will be hired to assist with Ordinance revision, asset inventory and Personnel Policy revision (\$5,000); \$29,000 to Stern Brothers for bond and long term debt refinancing; \$37,500 to Weist Law for bond counsel services; \$100,000 for dredge permitting.

**E20 - Utilities**

Expenses for electricity, gas, water, sewer and refuse for the District office, Marina docks, lights, office spaces, and buildings. This expense will be offset by the revenue received through the installation of water and electrical meters.

**E21 - Maintenance Expense**

Estimated expenses for repairs and maintenance to Marina docks, light fixtures, compressor, miscellaneous equipment, facilities and roof repairs to the main building, as well as other District facilities. Also includes all tools less than \$2,500 and annual maintenance agreements on office equipment. Maintenance on Berths 1 & 2 (\$30,000), repairs to 60kV substation (\$200,000) and outfall pipe (\$40,000) have been added.

**E22 - Fields Landing Expense**

This is to cover any expenses of the District for the repair and maintenance of the District's Fields Landing property including storm water filters, repairs to buildings and yard lighting. Also included are insurance, utilities, water, sewer, refuse, and telephone service.

**E23 - Shelter Cove Expense**

Expenses/miscellaneous items needed for the repair and maintenance of the District's facilities at Shelter Cove (includes Insurance Expense). Also includes repairs to breakwater, roads, fencing and fish cleaning station.

**E24 - King Salmon Expense**

Estimated expenses for maintaining the King Salmon Beach area, including replacing signage and vegetation maintenance.

**E25 - Redwood Marine Terminal/Berth 1 Expense**

Estimated expenses for maintaining the Redwood Dock/Berth 1 property (planking, roadway upgrade, power).

**E26 - Redwood Terminal 2/Berth 2 Expense**

Estimated expenses for maintaining the Redwood Terminal 2/Berth 2 property, utilities and minor repairs.

**E27 – Interest/Fee Expense**

**E28 - Grant Expense**

Expenses associated with grant-funded projects expected to occur in FY 2014/15.

**E29 – Equity Line Loan – No expenses in 2014/15**

**CAPITAL EXPENDITURES**

**NOE1 - Woodley Island Facility Improvement**

Estimated expense for the purchase of replacement floats (\$50,000), tenant restroom upgrades (\$10,000), gangway gates (\$3,000), wildlife area trail (\$3,000), expansion of storage area (\$10,000) and addition of 1-20' cold storage van. The purchase of 2 kayak racks and development of an area in the work yard to freeze and package fish are being considered.

**NOE2 - Woodley Island Marina Dredging**

Estimated expenses in preparation of the next dredge cycle, which will occur in approximately 5-6 years. \$100,000 is estimated for dredge permitting.

**NOE3 - Fields Landing Boat Yard**

Estimated expenses for capital improvements to the Fields Landing Boat Yard, including fence expansion (\$20,000) and installation of a lower dock next to Travelift pier (\$5,000), improvement of the Sea Scouts building for dredge equipment storage (\$5,000) increased lighting/security cameras (\$5,000) and purchase of a back hoe (\$25,000).

**NOE4 - Marine Terminal Improvement**

Estimated expenses required for a forklift, backhoe and hoist (\$30,000 total) to use at the Redwood Marine Terminal Berth 1, additional decking (\$15,000), power and lights (\$20,000), fencing (\$10,000) and installation of a fuel dock (\$75,000).

**NOE5 - Harbor Improvement**

Payments for harbor improvement projects such as channel deepening, shoreline protection, shoal abatement and navigation aid improvement. King Salmon Fisherman's Channel dredging (\$50,000), sea wall repair (\$30,000) and designation of a Port Authority dock (\$5,000).

**NOE6 - Property Acquisition**

None anticipated in FY 2014/15.

**NOE7 - Property Improvement – Redwood Terminal 2**

Expenses associated with the Redwood Terminal 2 property and paid from New Markets Tax Credits revenue, including but not limited to: new main electrical power (\$400,000), domestic water (\$500,000), industrial water and fire protection (\$300,000), sewer connections and leach field improvements (\$100,000), warehouse, shop and office roof, door and outside wall repairs/improvements (\$700,000), road and cargo storage area improvements (\$100,000), development of flupsy marina (\$300,000). Also included: \$200,000 NMTC costs; \$100,000 deposits for NMTC transaction (to be reimbursed and reflected in Revenue); \$255,000 planning services paid for by EDA and CDBG grants; \$55,000 Harbor District grants match; \$250,000 cleanup paid for by Brownfields grant; \$1,200,000 trucking services paid for by Coast Seafoods Loan and \$6,500 interest at 3.5% for 6 months on Coast Seafoods Loan and TIGER Grant funds of \$959,400 for planning and permitting pertaining to the Samoa Industrial Waterfront Transportation Access Plan.

**NOE8 - Recreational Enhancements**

Estimated expense to purchase a fish carcass freezer, solid waste separator and sewer collector to use at the fish cleaning station in Shelter Cove.

**NOE9 - Conservation Enhancements**

Estimated expenses for capital improvements related to conservation enhancements at facilities other than Woodley Island.

**NOE10 - Auto/Operating Equipment**

Estimated expenses for the upgrade of the dredge and dredge work boat.

**NOE11 - Office Equipment**

Estimated expenses for upgrading District computers.

**DEBT PAYMENTS**

**Cal Boating Loan**

Monies borrowed to build Woodley Island Marina and dry stack storage

**Deepening Loan**

Bond payments to pay for the deepening of Humboldt Bay's bar and entrance channel.

**Electric Meter Loan Payments**

Monthly payments on the Woodley Island Marina electric meter loan.

**Forklift Loan Payments**

Monthly payments on the Redwood Terminal 2 Forklift.

**Coast Seafoods Repayment**

Repayment of loan to Coast Seafoods for the trucking of the liquors from Redwood Terminal 2 to KapStone.

**CASH DESIGNATIONS**

**Woodley Island Facility Improvement**

Funds set aside for major Marina and upland construction, rehabilitation, improvement or expansion projects.

**Woodley Island Marina Dredging**

Funds set aside annually to pay for maintenance dredging of Woodley Island Marina every 7-10 years. A \$0.75 per foot surcharge will be assessed for FY 2014/15.

**Woodley Island Marina Float Replacement**

Funds set aside annually to pay for marina float replacement. A \$0.50/ per foot surcharge will be assessed for FY 2014/15.

**Fields Landing Boat Yard**

Funds set aside for future maintenance projects on the Boat Building and Repair Facility in Fields Landing such as future repaving of the yard.

**Marine Terminal Improvements**

Funds set aside for construction, rehabilitation, improvement or expansion projects at the Redwood Dock Marine Terminal (including Berths 1 & 2 and warehouses and upland dredge disposal site), and Fields Landing Terminal.

**Harbor Improvements**

Funds set aside for harbor improvement projects such as channel deepening, shoreline protection, shoal abatement and navigation aid improvement.

**Recreational Enhancements**

Funds set aside for recreational facility construction, rehabilitation, improvement or expansion projects including funds set aside for acquisition of additional recreational facilities and for planning expenses related to the Samoa Shops complex.

**Conservation Enhancements**

Funds set aside for the acquisition, construction, restoration, rehabilitation or expansion of conservation areas.

**Mariculture Management Fund**

Each year the District shall reserve 25% of the tideland revenue from mariculture operations on tidelands leased as a part of the District's mariculture expansion project. These funds are reserved for future expenses related to permitting and environmental compliance for mariculture activities on District tidelands.

**Emergency**

Funds available for expenses related to recovery from emergencies.



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HUMBOLDT BAY HARBOR, RECREATION  
AND CONSERVATION DISTRICT

PERMIT AND AGREEMENT TO  
OPERATE A CHARTER SERVICE

Startare Drive  
Woodley Island Marina  
P.O. Box 1030  
Eureka, CA 95501

PERMITTEE:  
**Luke Cochran**  
**Silver Star Sportfishing LLC**  
**dba *Silver Star Sportfishing***  
**P.O. Box 235**  
**Myers Flat, CA 95554**

This Permit and Agreement is executed in triplicate at Woodley Island Marina, Eureka, California, between HUMBOLDT BAY HARBOR, RECREATION AND CONSERVATION DISTRICT, hereinafter referred to as "District", and **Luke Cochran**, Silver Star Sportfishing LLC, dba ***Silver Star Sportfishing*** hereinafter referred to as "**Luke Cochran.**"

**WHEREAS**, **Luke Cochran** is the Lessee of Slip Number 09, Float D, at the Woodley Island Marina for a vessel, pursuant to a Berthing Permit and Rental Agreement for the Woodley Island Marina, a copy of which is attached hereto and incorporated by reference as Exhibit "A" hereto; and

**WHEREAS**, on or about July 20, 2012, **Luke Cochran** made a written application to the District for a Permit from the District to operate the business ***Silver Star Sportfishing*** on a vessel moored at Slip Number 09, Float D at the Woodley Island Marina; and

**WHEREAS**, on March 14, 2013, a request to renew the permit for one year was received in the Harbor District office; and

**WHEREAS**, on July 03, 2014, a request to renew the permit for one year was received in the Harbor District office; and

**WHEREAS**, Ordinance Number 9, Section 6.78, subparagraph a of the District prohibits any commercial endeavor or charter service for hire without a special permit from the District.

**AFTER REVIEW AND CONSIDERATION** thereof by the Board of Commissioners of the District of the application of **Luke Cochran**:

**THE PARTIES, THEREFORE, AGREE AS FOLLOWS:**

1. District shall permit **Luke Cochran, *Silver Star Sportfishing***, to operate the business ***Silver Star Sportfishing*** for the purpose of charter service at the Woodley Island Marina. The charter services shall consist primarily of sport fishing. Diving or diving instruction from or on said vessel shall not be allowed and shall be prohibited at all times at any locations within or without the boundaries of Woodley Island Marina while **Luke Cochran** operates the business of charter services from the Woodley Island Marina.
2. The term of this Permit and Agreement shall be for one (1) year commencing July 27, 2014 and terminating on July 26, 2015. District or **Luke Cochran** may terminate this Permit and Agreement by giving sixty 60 days written notice of termination to the other party. District may terminate this Permit and Agreement with **Luke Cochran** with or without cause or reason by giving **Luke Cochran** sixty 60 days written notice of termination and **Luke Cochran** shall terminate their business, as defined in Paragraph 1, 60 days from the date of personal service of said written notice of termination or sixty 60 days from the date of deposit or the written notice of termination deposited, enclosed in a sealed envelope with postage thereon fully prepaid, in the United States mail, and addressed to **Luke Cochran**, at P.O. Box 235, Myers Flat, CA 95554. In the event **Luke Cochran** are in default of any of the provisions of the Berthing Permit and Rental Agreement for the Woodley Island Marina, a copy of which is attached hereto as Exhibit "A", and **Luke Cochran's** Berthing Permit is terminated pursuant to said Agreement, this Permit and Agreement to operate a Charter Service shall terminate forthwith on the date of termination of **Luke Cochran's** Berthing Permit and Rental

Agreement for the Woodley Island Marina without the requirement of the hereinabove set forth sixty 60 day notice of termination provisions.

3. In addition to the monthly rental payable by **Luke Cochran** to the District pursuant to the Berthing Permit and Rental Agreement for the Woodley Island Marina, a copy of which is attached hereto as Exhibit "A", **Luke Cochran** shall pay District the sum of Two hundred fifty dollars and no cents (\$250.00) per year, however all rates may be changed pursuant to paragraph 3 of the Berthing Permit and Rental Agreement for Woodley Island Marina which provides that the District may change or increase the rates by giving thirty (30) days notice.
4. On or prior to the date of the Agreement, to wit: July 27, 2014, **Luke Cochran** shall purchase and maintain throughout the term of the Permit and Agreement Commercial General Liability insurance covering **Luke Cochran** pursuant to the terms of this Permit and Agreement. Said insurance policy of "protection and indemnity insurance" insuring **Luke Cochran** from liability for bodily injury, death, or property damage as a result of their operation and shall name District as an additional insured and provide District, prior to July 01 each year, with a Certificate of Insurance stating the amount of the insurance and proof that the District is an additional named insured, and the agreement of said insurance company that District shall be notified forthwith of the event of non-payment of the premium or termination of said insurance policy. The amount of insurance shall be One Million Dollars and no cents (\$1,000,000.00) per occurrence. In the event said liability insurance policy referred to in Paragraph 4 is cancelled or terminated, **Luke Cochran** shall forthwith cease and stop their **Silver Star Sportfishing** business at District's premises at the Woodley Island Marina and shall not resume operations until said liability insurance policy is fully reinstated and in full force and effect.
5. **Luke Cochran** shall, prior to commencing operation of **Silver Star Sportfishing**, obtain any and all necessary permits, if applicable, including

but not limited to City of Eureka business license and California Department of Fish and Wildlife licenses.

6. **Luke Cochran** agrees that neither the Humboldt Bay Harbor, Recreation and Conservation District, nor its Board of Commissioners, nor any Officer of the District shall be liable to any extent for the injury or damages to any person or property or for the death of any person arising out of or connected with **Luke Cochran**, and **Luke Cochran** shall indemnify and hold harmless District, its Commissioners, and Officers free and harmless from any liability for any such injury, death or damages. In addition, **Luke Cochran** agrees to hold harmless, indemnify, and hold District non-responsible for any of **Luke Cochran's** operations according to the provisions of paragraphs 11, 13, and 19 of the Berthing Permit and Rental Agreement for Woodley Island Marina, a copy of which is attached hereto as Exhibit "A" and incorporated by reference as though set forth in full.
7. **Luke Cochran** at all times shall comply and shall obtain compliance of Lessees' family, agents, employees, business visitors, and invitees of all laws, ordinances, rules and regulations, including Ordinance No.9, the Woodley Island Marina Rules and Regulations, and those of local, state, and federal government.
8. **Luke Cochran** at all times shall ensure that walkways and finger piers are not obstructed in any manner. No tires, ropes, canvas, or other material shall be nailed or attached to finger piers, docks, and piles without the written approval of the District. No person shall throw, discharge, or deposit from any vessel or from the shore or float or in any other manner, any fish or shellfish parts into or upon the waters of the Woodley Island Marina or upon the banks, walls, sidewalks, or parking areas within the boundaries of the Woodley Island Marina. No person shall place or leave dead animals, fish, shellfish, bait, or other putrefying matter on or along seawalls, harbor structures, floats, piers, sidewalks, or parking areas within the boundaries of the Woodley Island Marina. Vessel must be kept free of trash and waste

product so as not to attract seagulls, sea lions, harbor seals, and other animals. All trash and waste product shall be properly disposed of each day.

9. **Luke Cochran** may place a sign on the vessel the size of which must be approved by the District's Chief Executive Officer. **Luke Cochran** may place a directional sign for incoming traffic onto Woodley Island Marina in an area approved by the Chief Executive Officer. Type and size of all signs are to be approved by the Chief Executive Officer of the District and, shall reasonably conform in size, shape, and colors of the signs heretofore existing on Woodley Island and the Woodley Island Marina.
10. This Permit and Agreement is not transferable or assignable by **Luke Cochran** without approval in writing by the District. Any transfer of assignment or attempted transfer or assignment of this Permit by **Luke Cochran** shall be null and void.
11. This Permit and Agreement is non-exclusive and District retains the right to enter into agreements with and grant permits to other persons or business for the same purposes as set forth in this Permit and Agreement.
12. The covenants and conditions herein contained shall apply to and bind the heirs, legal representatives, successors, and assigns of all of the parties hereto; and all of the parties hereto shall be jointly and severally liable hereunder.
13. Time is of the essence of this Permit and Agreement and of each and every covenant, term, and condition, and provision hereof.
14. **Luke Cochran** is hereby notified by the District that this Permit and Agreement to Operate ***Silver Star Sportfishing*** in conjunction with the Berthing Permit and Rental Agreement for a vessel at the Woodley Island Marina or property interests created herein, if any, may be subject to a possessory interest tax or property taxation if created pursuant to Sections 107 to 108 of the California Revenue and Taxation Code and that **Luke Cochran** and/or the party in whom the possessory interest is vested may be subject to the payment of property taxes levied upon such interests. **Luke**



**Cochran** agrees and acknowledges that they have actual notice pursuant to Section 107.6 of the California Revenue and Taxation Code and that **Luke Cochran** may be required to pay a possessory interest tax as a result of this Permit and Agreement to operate a charter service in conjunction with the Berthing Permit and Rental Agreement for the vessel for Woodley Island Marina. **Luke Cochran** hereby acknowledge that they have actual knowledge of the existence of a possessory interest tax and have read the provision of Section 107 to 108 of the California Revenue and Taxation Code. **Luke Cochran** agrees to and shall pay all possessory interest taxes levied by any governmental agency by reason of this Permit and Agreement and their Berthing Permit and Rental Agreement for their vessel, for Woodley Island Marina.

**EXECUTED on, \_\_\_\_\_, 2014, by authority of the Board of Commissioners of the HUMBOLDT BAY HARBOR, RECREATION, AND CONSERVATION DISTRICT.**

**RECREATION,  
DISTRICT**

\_\_\_\_\_  
**RICHARD MARKS, President  
Board of Commissioners  
HUMBOLDT BAY HARBOR,  
AND CONSERVATION**

**Luke Cochran, dba, *Silver Star Sportfishing***, as Permittee in this Permit and Agreement hereby accepts and agrees to all terms and conditions herein above set forth.

Dated: \_\_\_\_\_, 2014

By \_\_\_\_\_  
**LUKE COCHRAN, Owner  
*Silver Star Sportfishing LLC*  
*dba Silver Star Sportfishing***



10c+d

Transmittal

To:	Jack Crider, Chief Executive Officer	From:	Albert Lemus & Liliana Monge
Company:	Humboldt Bay, Harbor Recreation & Conservation District	Company:	Lowe Enterprises – Real Estate Group
Subject:	NMTC Subcontractors	Date:	July 1, 2014

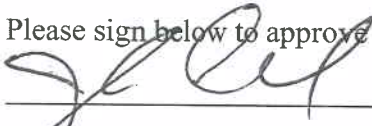
FOR REVIEW & APPROVAL

Pursuant our Professional Services Contract, dated May 23, 2014, Section 4, Third Party Professional Services, which states, "If and when Lowe concludes that it is advisable that the District retain third party professional services, such as bond advisor, legal and accounting services, in order to more thoroughly evaluate or otherwise facilitate the financing described in this Contract, Lowe shall so advise District and shall make referrals to such third party providers." To that end, Lowe has attached the following letters for your review and approval.

- Novogradac & Company – to prepare NMTC financial model
- Nixon Peabody – special NMTC counsel - \$2,500 retainer required

Going forward we will forward all invoices to your accounting department, within 24 hours of receipt, for your review and approval.

Please sign below to approve the aforementioned, and process the appropriate retainers/fees.

  
 \_\_\_\_\_  
 (Signature)

7/1/14  
 \_\_\_\_\_  
 (Date)

CEO  
 \_\_\_\_\_  
 (Title)

## Humboldt Bay Harbor District New Market Tax Credit Accounting & Legal Counsel Interviews

Firm Name/ Interviewees	Background / NMTC Experience	Process Explanation (key Points)	Amount of Travel/ Cost of Services
<b>Accounting Firms</b>			
Novogradac & Company LLP  Bryan Hung	Has worked with Lowe Enterprise, involved in Pt Hueneme, SOQ featured financial forecast insights	Conveyed financial model knowledge– able to explain to Board, looks for gap financing, deal must be sustainable - offers nonprofit audits/ returns ongoing	Most work from office, travel as needed Cost Est \$30K
Cohn Resnick  Joel Resnick	Working on NMTCs since 2003, offers services adapted to participant needs, good relationship with US Treasury no SOQ	Good NMTC understanding – will prepare flow charts for client, conveyed understanding of need to create value for new nonprofit & to accommodate all interests involved in deal, acknowledged involvement in 2-3 deals that didn't work.	Most work from their office, minimal travel as needed Cost Est \$ 25-30K
<b>Legal Counsel</b>			
Weist Law (WL) Cameron Weist  + Kutak Rock LLP (KR) Micah Halverson & Carol Mihalic	WL working with N. CA entities – Arcata HWMA Del Norte Co KR worked for various NMTC closes 1 deal/month avg. SOQ WL only	Importance of getting 'Qual C's' formed correctly. Differentiates infrastructure costs from bldg. improvmts. Knowledge of 'nuances' of tax issues, had good response for 'too good to be true' question	Most work from their office, can coord. travel with other clients Cost Est \$ 80-125K
Nixon Peabody  Michael Goldman Sonia Nayak Ruth Stillman (Env)	Have closed hundreds of NMTC deals, rep's investors & borrowers, involved in Pt Hueneme	Understanding/exper working on contaminated sites, have env law specialist, understand what investors will want to know about site condition to be comfortable investing, acknowledge investor selection as key decision	Most work from their office, minimal travel as needed Cost Est \$75-100K
Bocarsly Emden Cowan.....  Eugene Cowan	100 or so NMTC deals ½ for investors ½ for borrowers, understand risk & reward, worked with Lowe, SOQ	Understands need to keep board informed, explained difference between initial interest only 7 yrs & subsequent amortization - rents at 7 yrs must cover P&I.	Most work from their office, minimal travel as needed Cost Est \$60-80K
Burke Williams Sorensen  Ruben Duran	involved in Pt Hueneme was City Atty for Desert Hot Sprngs, public governance expertise, sent follow-up info	Understands importance of keeping board & community informed, discussed looking forward for wind down after 7 yrs & amortization impacts	Most work from their office, minimal travel as needed Cost Est \$ 0.75 point on QEI

10e

## Humboldt Bay Mariculture Pre-Permitting Project

### *Request for Proposals*

**Request for Proposals Release Date: 07/14/2014**

**Proposals Must Be Received by: 09/05/2014**

**Email Completed Proposals to: Jack Crider, Humboldt Bay Harbor District CEO  
([jcrider@humboldtbay.org](mailto:jcrider@humboldtbay.org))**

#### **Background**

The Humboldt Bay Harbor, Recreation and Conservation District (District) and City of Eureka are tideland trustees for portions of Humboldt Bay, California. The District is in the process of acquiring environmental permits to conduct mariculture (shellfish and/or macro-algae) operations at specific sites in the bay. The permitting process is expected to be complete in 2015. Once the sites are permitted, they will be leased to private culturists. The District is requesting proposals from culturists to lease and culture the sites once they are permitted. The sites and potentially allowable culture methods are described in Attachment A (Project Description).

It is possible that the project description, including the sites, will be modified based on permit conditions or responses to this Request for Proposals (RFP). It is expected that, after the close of this RFP period, and when permits are received, the District and RFP responders will refine the details of proposed culture methods and locations. There is no guarantee that any proposal will be accepted.

The District will host a tour of the mariculture sites and answer questions regarding the project on 08/15/2014. Please email Adam Wagschal ([awagschal@harveyecology.com](mailto:awagschal@harveyecology.com)) by 8/11/2014 if you plan to attend.

#### **Request**

As more thoroughly described in Attachment A, mariculture sites will be permitted for specific species and culture methods, with thresholds set for aspects of the culture operations (such as the overall benthic footprint). The District is requesting proposals for leasing the parcels depicted in Attachment B. RFP responders can propose to lease multiple parcels.

Proposals should include the following information separately for each parcel being considered:

- Parcel proposed for lease (see Table 1 and Attachment B).
- Proposed annual lease payments (the minimum required costs are shown in Table 1).
- Proposed species to be cultured, consistent with the project description (Attachment A).
- Proposed culture methods, consistent with the methods and thresholds described in Attachment A.
- Any proposed expectations of the District and/or City of Eureka during the term of the lease (for example, any proposed improvements to adjacent District properties).

Proposals should also contain the following information:

- Statement describing the experience and qualifications of the operators who would conduct the proposed mariculture.
- Three professional references in the mariculture industry (include name, email and phone number).

### Minimum Parcel Costs

The minimum annual cost, to be paid in monthly payments, for each parcel (Table 1) are based on an assessment of existing fees, plus an increase to cover the District and City of Eureka’s administrative costs and to build a fund to maintain (e.g., renew) permits at the sites.

**Table 1. Minimum annual cost for each parcel (Attachment B depicts parcel boundaries).**

Parcel	Acres	Cost per Acre	Total Cost
Intertidal 1-A	38.7	\$124	\$4,799
Intertidal 1-B	59.8	\$124	\$7,415
Intertidal 2-A	65.8	\$124	\$8,159
Intertidal 2-B	65.7	\$124	\$8,147
Intertidal 2-C	56.9	\$124	\$7,056
Intertidal 2-D	58.9	\$124	\$7,304
Intertidal 2-E	57.7	\$124	\$7,155
Intertidal 2-F	59.2	\$124	\$7,341
Intertidal 3-A	13.6	\$124	\$1,686
Intertidal 4-A	12.5	\$124	\$1,550
Intertidal 4-B	12.8	\$124	\$1,587
Intertidal 4-C	6.0	\$124	\$744
Intertidal 4-D	6.5	\$124	\$806
Intertidal 4-E	12.1	\$124	\$1,500
Subtidal 1-A	1.0	\$347	\$347
Subtidal 1-B	1.5	\$347	\$521
Subtidal 1-C	1.4	\$347	\$486
Subtidal 2-A	3.1	\$3,145	\$9,750
Subtidal 2-B	2.5	\$3,145	\$7,863
Subtidal 2-C	1.3	\$3,145	\$4,089
Subtidal 2-D	1.6	\$3,145	\$5,032
Subtidal 3-A	2.2	\$6,285	\$13,827
Subtidal 3-B	1.5	\$6,285	\$9,428
Subtidal 3-C	1.6	\$6,285	\$10,056
Subtidal 3-D	1.4	\$6,285	\$8,799
Subtidal 3-E	2.0	\$6,285	\$12,570



### **Proposal Selection Process and Criteria**

Proposals will be reviewed by a panel consisting of District staff and Commissioners. The following criteria will be used to evaluate proposals:

- 1) Proposed annual lease payments (Table 1 depicts the minimum costs).
- 2) Qualifications to successfully conduct the proposed mariculture activities.
- 3) Consistency of proposal with the project description (Attachment A).
- 4) Potential investments and contribution to the local economy including creation of jobs.
- 5) Proposer's expectations of the District and/or City of Eureka during the term of the lease (for example, any proposed improvements to adjacent District properties).

### **General Terms**

Leases for the parcels would have a five year term with potential for renewal if lessees are fulfilling all lease obligations. Subleasing of parcels will not be allowed.

### **Disclaimers**

- 1) The permitting process for the sites described in this RFP is underway. It is uncertain when permits will be secured. Additionally, allowable uses and site configurations may change during the permitting process.
- 2) Portions of each site may not be suitable for mariculture. It is the responsibility of RFP responders to determine the potential mariculture value of each site and structure their proposals accordingly.
- 3) The District may request additional information related to proposals.
- 4) The District reserves the right not to award any leases based on this RFP and to re-request proposals at their sole discretion.

Attachment A  
Humboldt Bay Mariculture Pre-  
Permitting Project  
Draft Project Description



**H. T. HARVEY & ASSOCIATES**  
*ECOLOGICAL CONSULTANTS*

**Humboldt Bay Mariculture Expansion Project  
Draft Project Description**

Prepared for:

**Humboldt Bay Harbor, Recreation and Conservation District**

601 Startare Drive

Eureka, CA 95501

p (707) 443-0801

Prepared by:

**H. T. Harvey & Associates**

5 May 2014



## Section 1.0 Introduction / Project Structure

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The Humboldt Bay Mariculture Pre-Permitting Project (Project) is an economic development project of the Humboldt Bay Harbor, Recreation and Conservation District (Harbor District or District), primarily funded by the Humboldt County Headwaters Fund. The Project will result in an expansion of commercial mariculture activities in Humboldt Bay, and is being undertaken to create jobs and improve the local economy.

As part of the Project, the District will obtain all the necessary regulatory approvals to allow mariculture activities at specific sites in Humboldt Bay, California. Once the Project's Environmental Impact Report (EIR) is finalized and all other regulatory approvals are gained, the District will grant leases to private aquaculturists for discrete portions of the Project's pre-permitted sites. For sites leased through the Project, the Harbor District will issue a standardized tideland lease for mariculture (Hereafter 'Lease'). Leases will be the mechanism by which the District ensures that all activities occurring under the Project are fully compliant with the EIR and all other regulatory terms and conditions for the pre-permitted sites. The Leases will:

- a) Include a map and legal description of the leased area, and allow the lessee to conduct specific mariculture activities within that area, and
- b) Incorporate the full suite of regulatory requirements that each private aquaculturist must comply with in order to operate under the EIR and other regulatory approvals; and
- c) Describe the mechanisms by which the District will oversee culture activities to ensure that operations are consistent with all regulatory requirements including regular reporting by lessees to the Harbor District; and
- d) Describe the process by which the Harbor District will address failures to meet lease requirements, including cancelling leases and requiring the removal of all cultured organisms and related equipment if lease conditions are not met.

As described below, there are three general intertidal culture methods and three general subtidal culture methods that will be allowable at the leased sites. Mariculture activities under the Project must not exceed specific thresholds related to (1) the surface area and volume occupied by culture activities, (2) amount of culture equipment in contact with the bay bottom (benthic footprint), (3) farm worker activities, and (4) biomass of cultured animals. Other terms and conditions that must be followed will be identified during the Project's environmental analysis and regulatory approval process.

Prospective lessees will be required to provide a site specific description of their proposed activities (a "culture description") to the Harbor District. The culture description must clearly demonstrate that (1) the general methods proposed are consistent with those in the standardized Lease and this EIR, and (2) the thresholds established in this EIR will not be exceeded by the culture activities. The following steps will be taken to ensure compliance with lease requirements.

Step 1. The culture descriptions provided by prospective Lessees will be reviewed by Harbor District staff to ensure that they are consistent with Lease requirements (and therefore with the EIR and other associated regulatory requirements).

Step 2. Harbor District staff will visit the culture sites to assess the proposed culture layouts and further ensure consistency with Lease requirements.

Step 3. If it is determined that the proposed activity is consistent with Lease requirements, and any other Harbor District requirements, then the District will enter into a Lease with the Lessee, and the Lessee may implement their culture activities as proposed.

Step 4. Harbor District staff will visit the culture sites during and immediately after each site is “planted” and at least annually thereafter to ensure compliance with all Lease requirements. A standard inspection report will be developed and utilized to document these visits.

Step 5. Each Lessee will provide an annual report to the Harbor District. This report will describe the culture site’s current status of operations, production, culture methods and relationship to the thresholds described below.

In the event that culture activities are at any point found to be out of compliance with Lease requirements, the Harbor District will require immediate action to achieve compliance with the Lease, and the District will reserve the right to revoke the Lease and require the removal of all cultured organisms and related equipment.



## Section 2.0 Project Description

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### 2.1 Objective

The overall objective of the Project is to permit areas in Humboldt Bay for mariculture in order to facilitate expansion of commercial mariculture activities, create jobs and improve the local economy.

### 2.2 Project Sites

The project consists of 4 intertidal sites where culture of Kumamoto oysters (*Crassostrea sikamea*) and Pacific oysters (*C. gigas*) could occur and 3 subtidal sites where culture of Kumamoto oysters, Pacific oysters and Manila clams (*Tapes philippinarum*) could occur. Additionally, at the subtidal sites, culture of native red macroalgae (Rhodophyta) could occur (for example, culture of *Chondracanthus*, *Gracilaria*, *Palmaria* and *Porphyra*). The sites were identified based on the following general criteria:

1. Good potential for successful mariculture based on input from local aquaculturists.
2. Minimize environmental effects:
  - a. Avoid marine mammal haul-out areas.
  - b. Avoid eelgrass beds by locating sites at higher elevations where eelgrass is absent or sparse.
3. Avoid existing tidelands leases.
4. To the extent possible, the vertices of each culture site are positioned on full “degree-minute-second” coordinates. This will make it easier to identify site boundaries in the field and to survey the sites.

The proposed sites are depicted in Figures 1-9<sup>1</sup>. Spatial coordinates for each site are provided in Appendix A.

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<sup>1</sup> The aerial imagery used in Figures 1-9 was collected by NOAA Coastal Services Center in 2009.



Figure 1. Intertidal Culture Sites



**Figure 2. Intertidal Culture Site 1 (Intertidal 1) is 98.5 Acres**

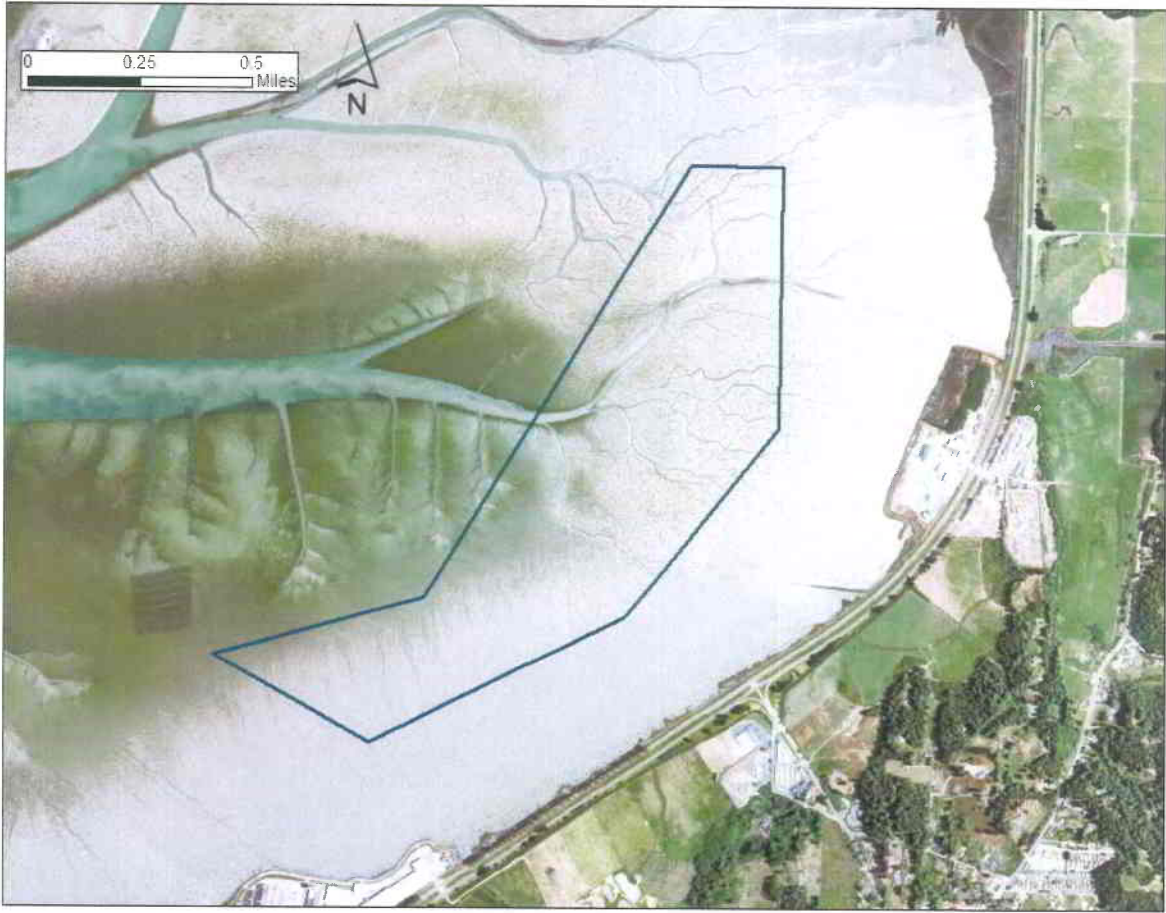


Figure 3. Intertidal Culture Site 2 (Intertidal 2) is 364.0 Acres





Figure 4. Intertidal Culture Site 3 (Intertidal 3) is 13.6 Acres



Figure 5. Intertidal Culture Site 4 (Intertidal 4) is 49.9 Acres





Figure 6. Subtidal Culture Sites



Figure 7. Subtidal Culture Site 1 (Subtidal 1) is 3.9 Acres



Figure 8. Subtidal Culture Site 2 (Subtidal 2) is 8.6 Acres



Figure 9. Subtidal Culture Site 3 (Subtidal 3) is 8.7 Acres

## 2.3 Project Description Overview

The continued success of mariculture in Humboldt Bay will require adaptation of culture methods as new technologies are developed. New methods can result in higher production, improved product quality and reduced environmental effects. To allow for adaptation of culture methods, the following process was used to develop the project description:

1. For each site, a project layout was developed based on the following culture methods. These methods represent the general types of culture that would occur under the project.
  - a. For intertidal sites:
    - i. Rack-and-Bag
    - ii. Cultch-on-Longline
    - iii. Basket-on-Longline
  - b. For subtidal sites:
    - i. Floating Upwelling Systems (FLUPSYs) or Pump Systems
    - ii. Rafts
    - iii. Macroalgae Longline
2. The following culture characteristics were assessed. These culture characteristics are related to specific environmental effects of mariculture (Table 1).
  - a. Levels of activity by farm workers
  - b. Water surface area occupied by culture equipment and cultured organisms
  - c. Volume of culture equipment and cultured organisms
  - d. Area of culture equipment in contact with bay bottom (benthic footprint)
  - e. Maximum biomass of shellfish soft tissue that could be present at any given time
3. Based on the culture characteristics of each method, thresholds were established for the Project. Under the Project, culture can occur within each site as long as it (1) does not exceed these culture characteristic thresholds; (2) follows other terms and conditions established by the Project's regulatory approvals; and (3) does not result in any environmental effects that were not considered under the Project. If there are environmental effects that were not considered under the Project, then additional regulatory approvals may be required.



**Table 1. Culture Characteristics and Related Potential Environmental Effects**

Culture Characteristics	Potential Environmental Effect
Levels of activity by farm workers	Environmental effects by farm workers (e.g., trampling, wildlife disturbance)
Water surface area occupied by culture equipment and cultured organisms	Increased shading and overwater cover
Volume of culture equipment under the water line	Effects on currents and sedimentation
Benthic footprint	Reduction in habitat for benthic organisms
Biomass of cultured shellfish	Reduced particulate organic matter as a result of consumption by cultured shellfish

As described above, this project description primarily establishes thresholds and criteria for mariculture at the project sites. However, at Subtidal Site 3 a specific need for infrastructure to support mariculture operations has been identified. Specifically, up to 32 18-inch diameter steel or concrete piles would be installed to allow multiple aquaculturists to secure their culture equipment.

## 2.4 Example Culture Methods

The Project is designed to allow for some flexibility in culture methods. The following culture methods were used to evaluate the potential environmental effects of mariculture and to establish thresholds for certain mariculture characteristics.

### 2.4.1 Intertidal: Shellfish Culture Rack-and-Bag Method

The following description was adapted from Coast Seafoods Company (2007). Rack-and-bag culture is used for growing Kumamoto oysters and Pacific oysters. The oysters are grown as “singles”, meaning they are not attached to any structure such as shells or to each-other (they are “loose” in the bags). Rack-and-bag culture uses polyethylene mesh bags and rebar frames. Each rebar frame is 3 ft x 12 ft and supports 3-6 bags attached to the frame via industrial rubber bands (see Appendix B). Each bag is initially seeded with oysters and placed in intertidal areas. It takes 1 – 1.5 years for the seed to grow into oysters of market size, depending on tidal height and primary productivity, and then the bags of oysters are harvested by hand (lifted from the racks into a skiff), processed and brought to market.

### 2.4.2 Intertidal: Shellfish Culture Cultch-on-Longline Method

The following description was adapted from Coast Seafoods Company (2007). Cultch-on-longline culture is used for growing Kumamoto oysters and Pacific oysters. Prior to planting in the bay, oyster seed is attached to shells, which are attached to longlines. Planting is accomplished by placing seeded longlines on notched PVC stakes that are arranged in rows on the mudflats. The longlines are strung through notches on top of the PVC stakes, suspending the oyster seed approximately one ft above the bay bottom (see Appendix B).



Longline beds are harvested when they have oysters of a harvestable size and market conditions are right. It usually takes 1.5 – 3 years for oysters to reach a harvestable size. One of 2 methods is used to harvest longlines. The first, hand picking, involves placing around 20 bushel tubs on the bed at high tide using an oyster scow. The tubs are then filled at low tide by hand. The picking crew cuts the longline into manageable single clusters and places them in the picking tub. A floating ball is attached to each tub, and at high tide an oyster scow is used to pull the tub out of the water. The oysters are dumped on the deck of the scow, and the tub is placed back on the bed to be refilled.

The second method of harvest, the longline harvester, involves positioning a scow over the longline bed at high tide. Individual lines are then pulled onto the floating scow either by hand or by means of a hydraulically operated roller. If the lines are pulled by hand then the lines need to be cut into individual clusters, usually at the plant. If the lines are pulled mechanically they run through a breaker that strips the clusters from the line. The longline harvester does not come in contact with the bottom while harvesting longlines.

#### **2.4.3 Intertidal: Shellfish Culture Basket-on-Longline Method**

Basket-on-longline culture is used to grow Kumamoto oysters and Pacific oysters as singles. This method utilizes baskets that hang off a monofilament line suspended off the bottom using 2 inch schedule 80 PVC pipe. The monofilament line is 5mm in diameter and protected by a 3/8 inch polyethylene sleeve that the monofilament is slid inside (see Appendix B). The baskets are approximately 24 inch x 10 inch x 6 inch and are held on the line with plastic clips. A float, which is approximately 2.5 inch diameter and 5.5 inch long, is often attached to the baskets so that the baskets float up during high tides. Once the oysters reach a harvestable size, in approximately 1.5 – 2 years, the baskets are removed from the water, and the oysters are accessed through end caps on the baskets.

#### **2.4.4 Subtidal: Shellfish Culture Floating Upwelling System (FLUPSY) or Pump System**

The following description was adapted from Coast Seafoods Company (2007) and Taylor Mariculture LLC (2011). The FLUPSY method is used to mature Kumamoto oyster, Pacific oyster and Manila clam seed. A FLUPSY is an in-water, raft-like structure that upwells water through upwelling bins to provide a consistent source of nutrients to growing shellfish. They are moored by chain and line to a pier and adjacent pilings or anchored with concrete or steel anchors. They are constructed of aluminum with poly-encapsulated floats for floatation, and have a submerged trough containing a paddle wheel or propeller. This trough is surrounded by open wells containing the upwelling bins. The paddle wheel or propeller moves the water out of the trough; in order for the trough to refill, water must pass through the upwelling bins containing oyster seed. The bottoms of the upwelling bins are a 1.2-1.8 mm mesh screen, which allows water to come up through the upwelling bin and exit the bin at the top (see Appendix B). Alternatively, instead of using a paddle wheel or propeller, water may be pumped to the shellfish seed (a Pump System). The FLUPSYS only contain seed, which is grown to market size using different methods.

#### **2.4.5 Subtidal: Shellfish Culture Raft Method**

The following description was adapted from Coast Seafoods Company (2007). Nursery rafts are anchored to concrete anchors, accessible by skiff. The rafts are about 12 ft wide x 24 ft long constructed from aluminum with polyethylene encapsulated Styrofoam for floatation. Each raft has 24 tray wells, which contain seed nursery trays in stacks of about 8-20 suspended in each well (see Appendix B). The rafts only contain seed, which is grown to market size using different methods.

#### **2.4.6 Subtidal: Macroalgae Long-Line Method**

Longline culture of macroalgae involves an array of single, independent lines (ropes) fixed by removable mooring points or anchors and supported by floats (see Appendix B). The algae would be collected locally from drift or by trimming algae no closer than 2 inches from the holdfasts and would be attached to the ropes for culture. Alternatively, spores may be settled onto ropes. A mature culture line would be covered nearly entirely by live holdfast tissue, promoting generation of vegetative growth (thalli) radiating outward from the live line. Periodically, the line would be raised and run over a star wheel assembly on an open work skiff, and through a cutter assembly, removing the mature thalli and leaving the holdfasts intact on the line for further culture. It is expected that algal biomass at harvest density would be approximately 2-3 lbs per ft of culture line.

Maintenance of the line would include periodic changing of leaders and floats to remove epiphytic growth. Lines would likely be arranged parallel to shore to minimize drag with tidal currents. Lines would be spaced to accommodate service and harvesting by a work skiff, likely with a minimum spacing of 20' between lines.

Visits to the site would be focused during the increasing photoperiod in spring and summer months, with overwintering visits likely limited to periodic maintenance. Growth rates on site are unknown but during harvest periods, visits may be weekly, with monthly maintenance visits in the offseason. Deployment or removal of lines would be more intensive but less frequent, on the order of two to three weeks of daily visits at the beginning or end of the growing season. Harvested product would be fresh cut seaweed in net bags, and would require use of a commercial hoist to offload for transport to processing or market.

### **2.5 Determination of Culture Characteristics**

The following processes and assumptions were used to develop an understanding of mariculture characteristics, upon which thresholds for mariculture operations were based.

#### **2.5.1 Environmental Effects by Farmworkers**

Farmworkers may have environmental effects when they are working at the culture sites, for example by trampling vegetation or disturbing wildlife. Mr. Greg Dale (Coast Seafoods Company operations manager) and Mr. Ted Kuiper (retired shellfish culturist) were interviewed to determine the type and number of visits for each method.

## 2.5.2 Surface Area

Cultured organisms and associated equipment can affect eelgrass and other habitat features by increasing shade over these features. Overwater structure can also provide habitat for organisms, including plants, birds, fish and invertebrates. The water surface area per acre occupied by culture equipment and cultured organisms was calculated based on the following assumptions (also see Appendix B):

### 2.5.2.1 Intertidal Culture Methods

For rack-and-bag culture:

- Racks are 12 ft x 3 ft and are elevated by six 5/8 inch rebar posts
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of 3 racks
- Each group of 9 racks is 10 ft apart from each other group of 9 racks

For cultch-on-longline culture:

- Area is based on measurements of sampled cultch on longlines in 2012
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of 5 lines is separated by 5 ft within a given row
- Rows are 10 ft apart
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated by 2 inch PVC posts every 2.5 ft

For basket-on-longline culture:

- Baskets are 24 inch x 10 inch
- Basket floats are 2.5 inch diameter and 5.5 inch long
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of 3 lines is separated by 20 ft on all sides
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated with 2 inch PVC posts every four baskets and line ends are anchored with 1.5 inch x 2 inch wide galvanized fence posts

### 2.5.2.2 Subtidal Culture Methods

For subtidal culture, the thresholds are based on a conceptual layout of rafts, FLUPSYs and floating docks at Subtidal Site 3. These thresholds represent a maximum that would not be exceeded by any subtidal culture method(s) at any subtidal site. The conceptual layout for the 8.7 acre site includes:

- Two floating walkways that are 538' x 10' each
- One floating walkway that is 214' x 10'

- 18 FLUPSYs that are 82' x 22' each
- 6 FLUPSYs that are 45' x 25' each
- 10 culture rafts that are 12' x 24' each

### 2.5.3 Volume

Cultured organisms and associated equipment can alter water currents and sedimentation rates. The overall volume of cultured organisms and associated equipment is a reasonable metric for assessing effects on currents and sedimentation. The volume of each culture method per acre was assessed based on the following assumptions (also see Appendix B).

#### 2.5.3.1 Intertidal Culture Methods

For rack-and-bag culture:

- Rack dimensions are 12 ft x 3 ft x 0.7 ft
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of 3 racks
- Each group of 9 racks is 10 ft apart from each other group of 9 racks

For cultch-on-longline culture:

- Volume of individual lines and associated shellfish is based on measurements taken in 2012
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of 5 lines is separated by 5 ft within a given row
- Rows are 10 ft apart
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

For basket-on-longline culture:

- Basket dimensions are 24 inch x 10 inch x 6 inch
- Floats are 2.5 inch diameter and 5.5 inch long
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of 3 lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

#### 2.5.3.2 Subtidal Culture Methods

For subtidal culture, the thresholds are based on a conceptual layout of rafts, FLUPSYs and floating docks at Subtidal Site 3. The thresholds represent a maximum that would not be exceeded by any subtidal culture method(s) at any subtidal site. The conceptual layout includes:

- 18 FLUPSYs that are 82' x 22' x 4' each
- 6 FLUPSYs that are 45' x 25' x 4' each

- 10 culture rafts that are 12' x 24' x 4' each

#### 2.5.4 Benthic Footprint

The area of culture equipment in contact with the bay bottom was calculated based on the following:

##### 2.5.4.1 Intertidal Culture Methods

For rack-and-bag culture:

- Racks are 12 ft x 3 ft and are elevated by six 5/8 inch diameter rebar posts
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of 3 racks
- Each group of 9 racks is 10 ft apart from each other group of 9 racks

For cultch-on-longline culture:

- Lines are elevated by 2 inch PVC posts every 2.5 ft
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of 5 lines is separated by 5 ft within a given row
- Rows are 10 ft apart

For basket-on-longline culture:

- Each line holds 40 baskets
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of 3 lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines
- Lines are elevated with 2 inch PVC posts every four baskets and line ends are anchored with 1.5 inch x 2 inch wide galvanized fence posts

##### 2.5.4.2 Subtidal Culture Methods

For subtidal culture, the thresholds are based on a conceptual layout of rafts, FLUPSYs and floating docks at Subtidal Site 3 and anchoring requirements. The actual number of anchors needed at Subtidal Site 3 may be substantially less than described below if piles can be installed. However, there is a possibility that pile installation won't be funded or permitted and so an environmental analysis of maximum anchoring requirements will be conducted. The thresholds developed based on the Subtidal Site 3 conceptual layout represent a maximum that would not be exceeded by any subtidal culture method(s) at any subtidal site. The conceptual layout includes:

- Three floating walkways each with 4 anchors that are 6 ft<sup>2</sup>
- 24 FLUPSYs each with 4 anchors that are 6 ft<sup>2</sup>

- 10 culture rafts each with 4 anchors that are 6 ft<sup>2</sup>

### 2.5.5 Biomass of Cultured Shellfish

Phytoplankton consumption by cultured shellfish is proportional to the number of shellfish cultured. The shellfish biomass calculations are based on the following:

#### 2.5.5.1 Intertidal Culture Methods

For rack-and-bag culture:

- Each Rack-and-Bag unit contains 6 bags per rack, with 2 liters of seed added per bag and periodic subsequent division of that stock into more bags
- Racks are set in groups of 9, with a distance of 3 ft between subgroups of 3 racks
- Each group of 9 racks is 10 ft apart from each other group of 9 racks

For cultch-on-longline culture:

- Each 100-ft longline contains 40-100 dozen oysters
- Lines are in groups of 5, with a distance of 2.5 ft between each line
- Each group of 5 lines is separated by 5 ft within a given row
- Rows are 10 ft apart

For basket-on-longline culture:

- Each basket is planted with 2 liters of seed with periodic subsequent division of that stock into more baskets. Each line holds 40 baskets
- Lines are in groups of 3, with a distance of 3 ft between each line
- Each group of 3 lines is separated by 20 ft
- Lines are a maximum of 100 ft, but areas where a 100 ft line won't fit are filled by partial lines

#### 2.5.5.2 Subtidal Culture Methods

For subtidal culture, the thresholds are based on a conceptual layout of rafts and FLUPSYs at Subtidal Site 3. The thresholds developed based on the Subtidal Site 3 conceptual layout represent a maximum that would not be exceeded by any subtidal culture method(s) at any subtidal site. Thresholds related to the biomass of cultured shellfish are not relevant for macroalgae culture. The conceptual layout includes:

- 18 FLUPSYs that are 82' x 22' x 4' each, with 30 bins per FLUPSY and an average of 15 kg of live weight seed per bin
- 6 FLUPSYs that are 45' x 25' x 4' each, with 15 bins per FLUPSY and an average of 15 kg of live weight seed per bin



- 10 culture rafts that are 12' x 24' x 4' each, with 20 trays per module, 24 modules per raft and an average of 1 kg of live weight seed per tray

## Section 3.0 Results and Thresholds

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Based on the information described above, culture characteristics are depicted in Tables 2-5.

**Table 2. Type and Number of Visits by Farmworkers to Different Types of Intertidal Mariculture Operations**

Method	Type of Visit	# Visits per Year	Note
Rack-and-Bag	Place racks	0.2	Once every 5 years
	Inspections	104	Range of 1 - 3 times per week, assumed average of twice per week
	Flip bags	26	Bags flipped on average every two weeks
	Grade oysters	6.4	Every 6-8 wks in summer (Feb to Oct) and every 8-12 wks in winter (Nov to Jan)
	Plant and harvest	1	Plant and harvest once per 2 years
Cultch-on-Longline	Staking lines	0.2	Once every 5 years
	Monthly inspection	12	
	Plant and Harvest	1	Plant and harvest once every two years
Basket-on-Longline	Stake lines	0.2	Once every 5 years
	Grade oysters	6.4	Every 6-8 wks in summer (Feb to Oct) and every 8-12 wks in winter (Nov to Jan)
	Plant and harvest	1	Plant and harvest once per 2 years

- "Shaded cells" depict the maximum values for each culture characteristic. These values represent the maximum level of effort that generally occurs for the various mariculture methods.

\*The information provided is for individual culture units (i.e., a single bag, longline or basket). A group of units would generally be visited more frequently.

**Table 3. Type and Number of Visits by Farmworkers to Different Types of Subtidal Mariculture Operations**

Method	Type of Visit	# Visits per Year	Note
Floating Upwelling System or Pump System*	Place FLUPSY or Pump System	.1	Once every ten years
	Rinse and Inspect seed	365	This figure is for Pump Systems, FLUPSY's require less rinsing and inspection.
	Grade seed	36	Every 10 days
Raft Culture*	Place raft	.1	Once every 10 years
	Inspections	365	Daily visual inspection from nearby docks or land
	Rinse seed	12	Once every month
	Grade seed	8	Once every month between March-October and every other month between November and February
Macroalgae Longline Culture	Deployment or removal of lines	2	Two to three people working daily for two to three weeks.
	Harvest	52	Assumed weekly, but this is likely an overestimate because there are times of the year when harvest won't occur.
	Maintenance	12	Once per month.

- "Shaded cells" depict the maximum values for each culture characteristic. These values represent the maximum level of effort that generally occurs for the various mariculture methods.

\* The information provided is for individual culture units (i.e., a single raft or FLUPSY). A group of units would generally be visited more frequently.

**Table 4. Culture Characteristics of Example Intertidal Culture Methods**

Method	Water Surface Area (ft <sup>2</sup> ) in Culture per Acre	Volume (ft <sup>3</sup> ) of Shellfish Culture Equipment and Cultured Organisms per Acre	Benthic Footprint (ft <sup>2</sup> ) per Acre	Biomass (kg) of Shellfish Dry Weight per Acre (6% of Live Weight)
Rack-and-Bag	13,068 (30%)	8,736	4.36	253
Cultch-on-Longline	4,792 (11%)	1,947	118.07	97
Basket-on-Longline	3,484 (8%)	1,623	11.80	207

- "Shaded cells" represent the maximum values for each culture characteristic. Under the Project, these maximum values are the culture characteristic thresholds that cannot be exceeded by shellfish culture operations.

**Table 5. Culture Characteristics of Subtidal Culture Methods for Surface Area and Volume of Culture Equipment and Biomass of Shellfish, based on a Conceptual Culture Layout for Subtidal Site 3.**

Surface Area (ft <sup>2</sup> ) in Mariculture Operations Per Acre	6,322 (14.5%)
Volume (ft <sup>3</sup> ) of Mariculture Equipment Per Acre*	19,357
Benthic Footprint (ft <sup>2</sup> ) of Mariculture Equipment (anchors) per Acre	102
Biomass (kg) of Shellfish Dry Weight Per Acre	98

\* Does not include floating docks, because they do not extend far below the water surface. Does include the entire volume of FLUPSYs and culture rafts, although a portion of this equipment is above the water surface.

### 3.1.1 Site Specific Thresholds

Farmworker activity at the sites must not exceed the general activity levels described for rack-and-bag culture (for intertidal sites) or FLUPSYs (for subtidal sites) (Tables 2 and 3). Additionally, the thresholds identified in Tables 4 and 5 cannot be exceeded. Site specific thresholds were determined by scaling the thresholds to the size of each site (i.e., multiplying each site's area suitable for culture by the relevant threshold values) (Tables 6 and 7).

**Table 6. Site Specific Culture Characteristic Thresholds for Intertidal Sites**

Site	Acres	Allowed Surface Area (ft <sup>2</sup> ) of Water that Can be in Mariculture Production	Allowed Volume (ft <sup>3</sup> ) of Mariculture Equipment and Cultured Organisms	Allowed Benthic Footprint (ft <sup>2</sup> )	Allowed Biomass of Shellfish (Dry Weight, kg)
Intertidal 1	99	1,306,800	864,864	11,689	25,047
Intertidal 2	364	4,756,752	3,179,904	42,978	92,029
Intertidal 3	14	182,952	118,810	1,652	3,542
Intertidal 4	50	653,400	435,926	5,904	12,650

**Table 7. Site Specific Culture Characteristic Thresholds for Subtidal Sites**

Site	Acres	Allowed Surface Area (ft <sup>2</sup> ) of Water that Can be in Mariculture Production	Allowed Volume (ft <sup>3</sup> ) of Mariculture Equipment and Cultured Organisms	Allowed Benthic Footprint (ft <sup>2</sup> )	Allowed Biomass of Shellfish (Dry weight kg)
Subtidal 1	3.9	24,656	75,493	398	383
Subtidal 2	8.6	54,370	166,472	878	845
Subtidal 3	8.7	55,002	168,408	888	855

### 3.1.2 Piles at Subtidal 3

In addition to the information described above, in order for Subtidal Site 3 to be used effectively by multiple aquaculturists, up to 32 18-inch diameter concrete or steel piles will be installed.

## Section 4.0 References

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Coast Seafoods Company. 2007. Coast Seafoods Application for Continued Mariculture Operations in Humboldt Bay, California. Draft Mitigated Negative Declaration. Prepared for Humboldt Bay Harbor, Recreation and Conservation District.

Taylor Mariculture LLC. 2011. Draft Mitigated Negative Declaration and Initial Study, Taylor Mariculture Berth 2 Facility. Prepared for Humboldt Bay Harbor, Recreation and Conservation District.

## Appendix A: Spatial Coordinates of Culture Sites

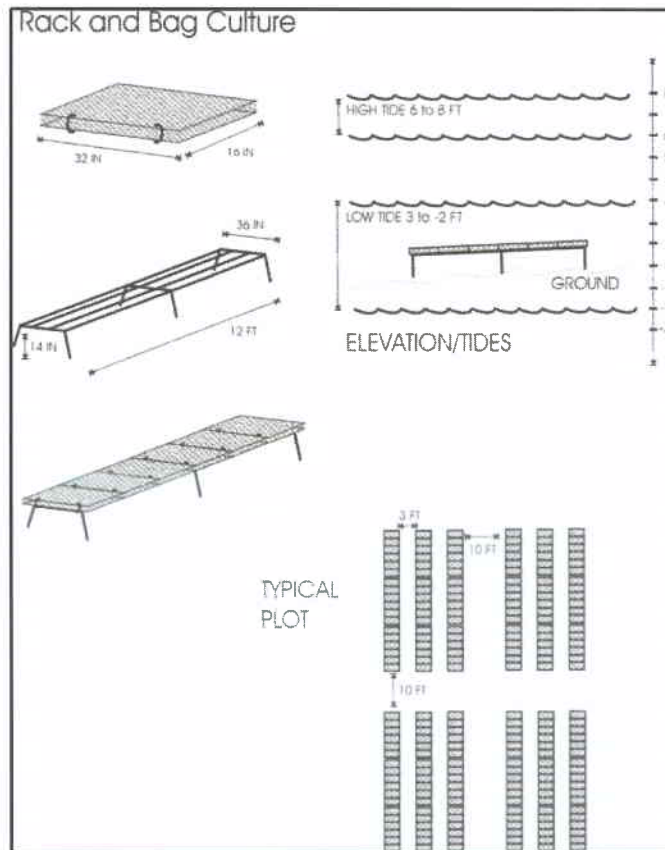
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	Longitude	Latitude
Intertidal 1	124° 9' 01" W	40° 50' 57" N
	124° 08' 53" W	40° 50' 57" N
	124° 08' 53" W	40° 50' 36" N
	124° 09' 16" W	40° 50' 15" N
	124° 09' 17" W	40° 50' 34" N
Intertidal 2	124° 05' 47" W	40° 50' 13" N
	124° 05' 33" W	40° 50' 13" N
	124° 05' 33" W	40° 49' 43" N
	124° 05' 56" W	40° 49' 21" N
	124° 06' 35" W	40° 49' 06" N
	124° 06' 59" W	41° 49' 16" N
Intertidal 3	124° 06' 27" W	40° 49' 23" N
	124° 09' 52" W	40° 49' 17" N
	124° 09' 28" W	40° 49' 19" N
	124° 09' 26" W	40° 49' 16" N
Intertidal 4	124° 09' 50" W	40° 49' 14" N
	124° 10' 06" W	40° 49' 13" N
	124° 10' 04" W	40° 49' 10" N
	124° 10' 18" W	40° 49' 04" N
	124° 10' 23" W	40° 49' 01" N
	124° 10' 29" W	40° 48' 53" N
	124° 10' 44" W	40° 48' 28" N
	124° 10' 47" W	40° 48' 29" N
	124° 10' 39" W	40° 48' 47" N
	124° 10' 30" W	40° 49' 01" N
Subtidal 1	124° 10' 18" W	40° 49' 09" N
	124° 11' 03" W	40° 48' 51" N
	124° 11' 01" W	40° 48' 50" N
Subtidal 2	124° 11' 07" W	40° 48' 42" N
	124° 11' 09" W	40° 48' 43" N
	124° 11' 16" W	40° 48' 32" N
	124° 11' 10" W	40° 48' 32" N
Subtidal 3	124° 11' 13" W	40° 48' 24" N
	124° 11' 19" W	40° 48' 24" N
	124° 11' 23.817" W	40° 48' 13.793" N
	124° 11' 21.342" W	40° 48' 13.034" N
	124° 11' 19.186" W	40° 48' 12.359" N
	124° 11' 19.284" W	40° 48' 12.149" N
	124° 11' 18.728" W	40° 48' 11.979" N
	124° 11' 19.507" W	40° 48' 10.331" N
124° 11' 20.213" W	40° 48' 8.999" N	
124° 11' 21.64" W	40° 48' 7.216" N	
	124° 11' 23" W	40° 48' 04" N
	124° 11' 28" W	40° 48' 04" N

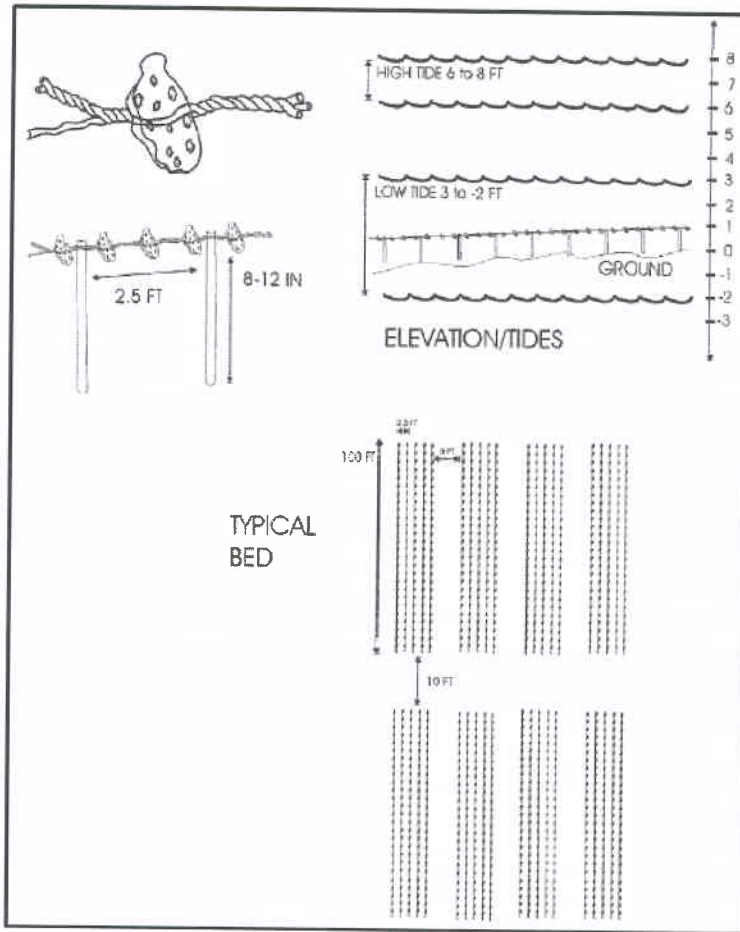


## Appendix B: Example Culture Method Diagrams and Pictures

### Rack-and-Bag Shellfish Culture (from Coast Seafoods Company 2007)



Cultch-on-Longline Shellfish Culture (from Coast Seafoods Company 2007)

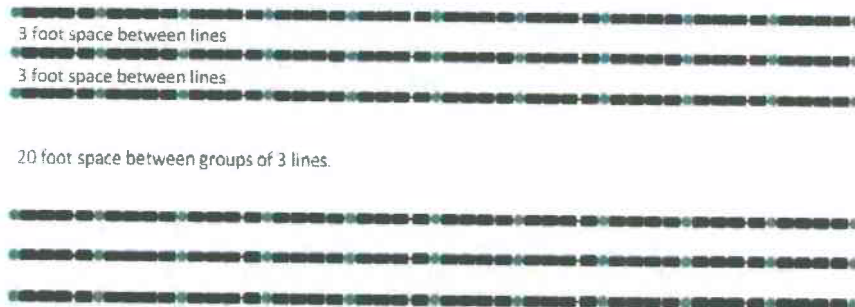


## Basket-on-Longline Shellfish Culture

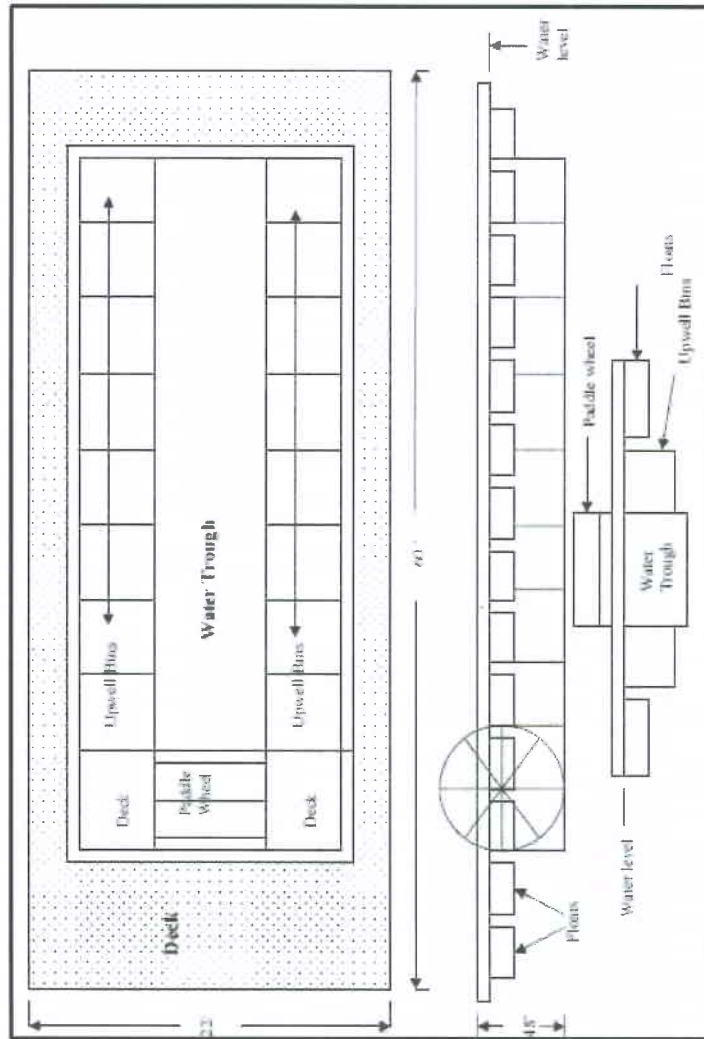
**Structure (Side View):** Lines are held up by 2 inch PVC pipe driven into the mud every 10 feet. Anchors made of galvanized fence posts are driven at the ends of each line. The lines are attached to the anchors and tension is created by a fence tightener. The baskets can be clipped and unclipped from the lines.



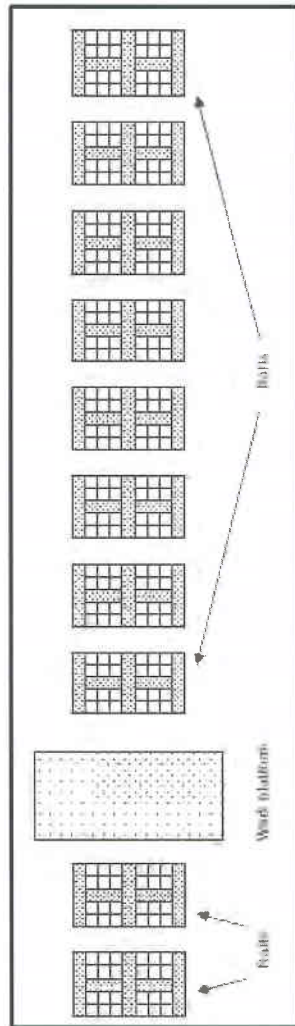
**Spacing (Top View):** Lines are 100 feet long and there are 40 baskets on each line. Lines are in groups of 3, with a 3 foot space between each line and a 20 foot space between each group of 3 lines. The 20 foot space is used to access the baskets with a boat.



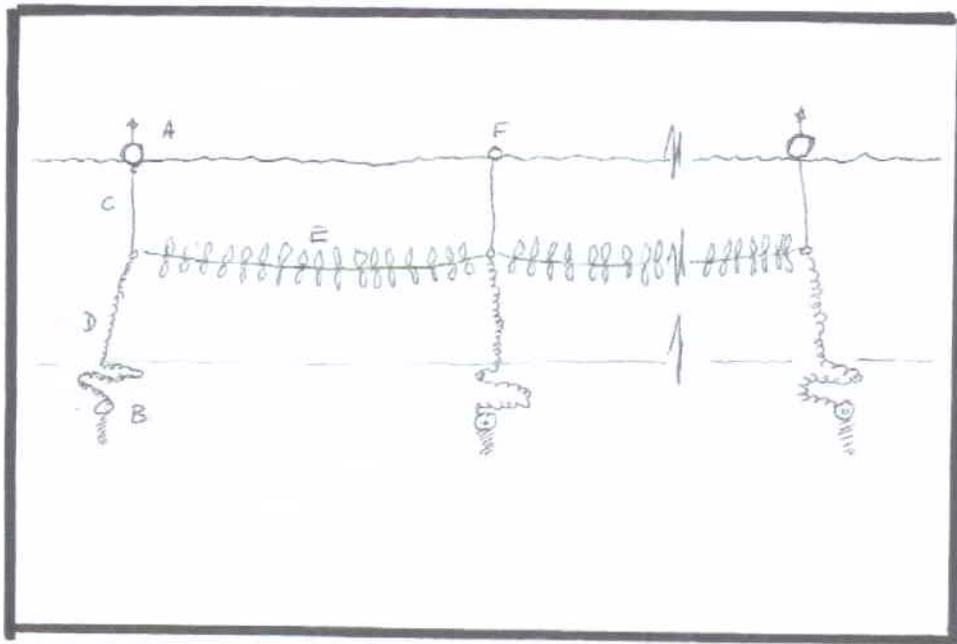
Shellfish Culture Floating Upwelling System (from Coast Seafoods Company 2007)



Shellfish Culture Rafts and a Work Platform (from Coast Seafoods Company 2007)



## Macroalgae Longline Culture



- A) End marker
- B) Helical sand point mooring
- C) 1/2" line leader attached by stainless welded ring and thimble
- D) 7/16" galvanized chain rode
- E) Three stranded culture line.
- F) Intermediate floats and mooring assemblies occur at 100' spacings until the line terminates

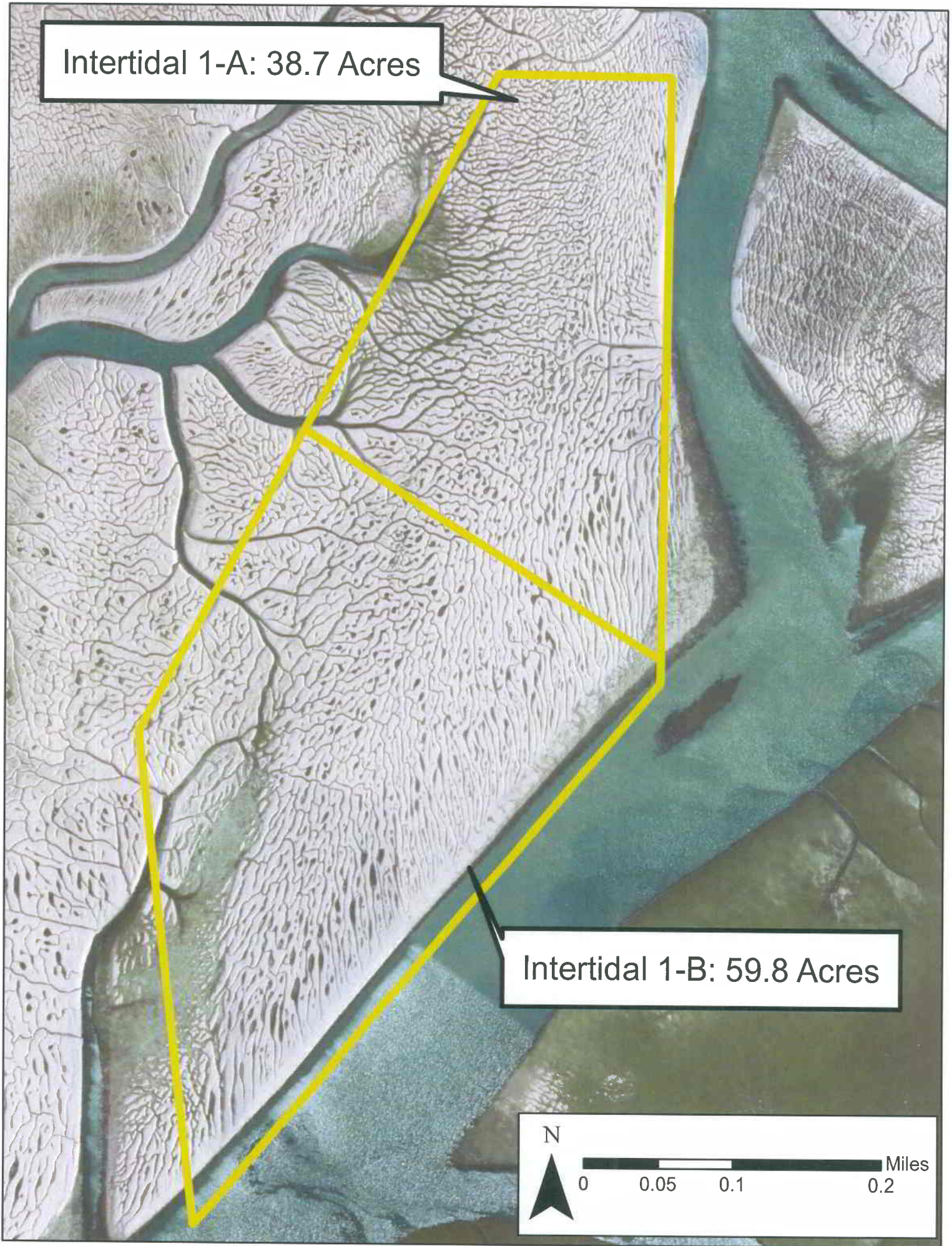


Attachment B  
Humboldt Bay Mariculture Pre-  
Permitting Project  
Parcels

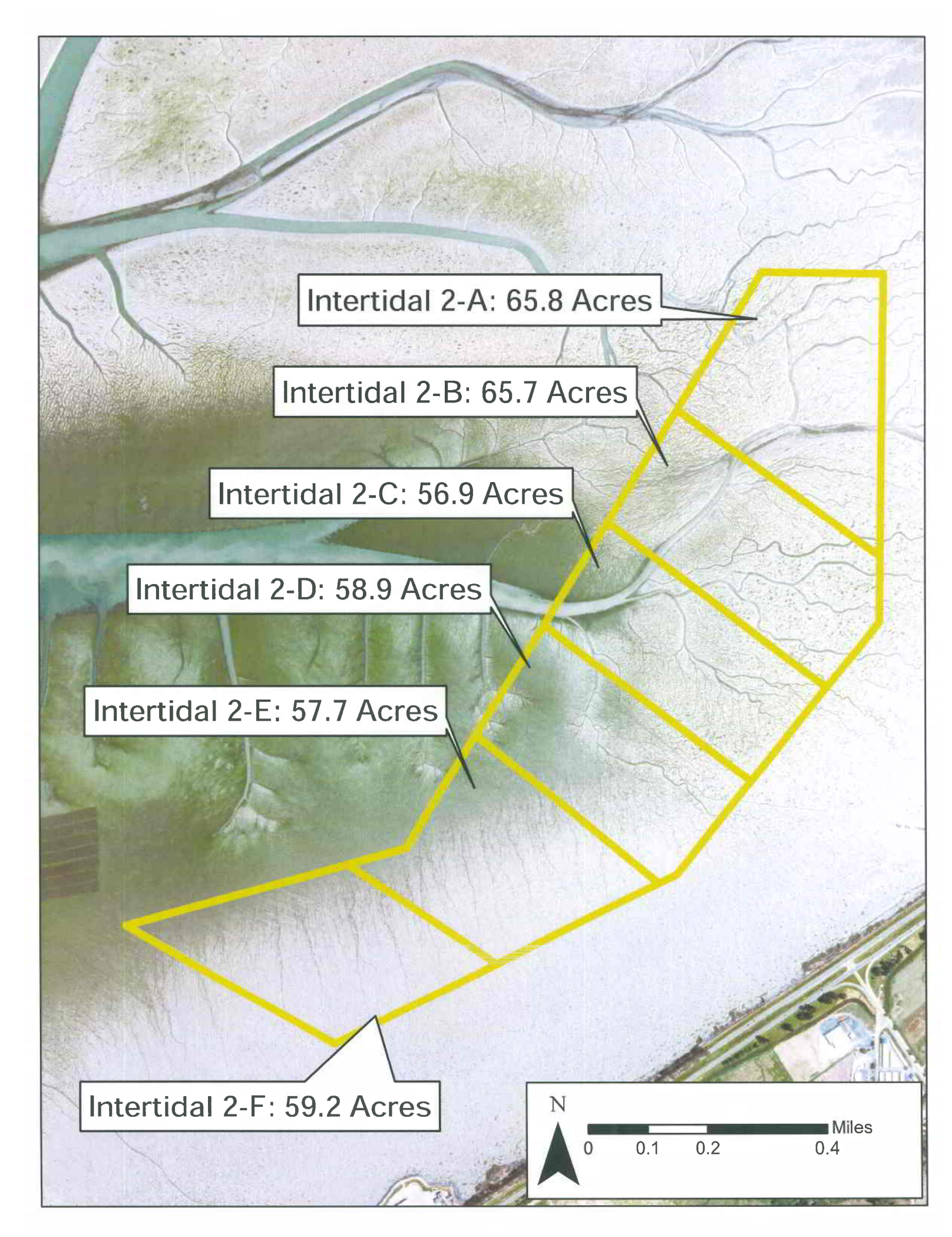
Intertidal 1-A: 38.7 Acres

Intertidal 1-B: 59.8 Acres

N





An aerial photograph showing a network of waterways and wetlands. Six specific areas are outlined in yellow. Each area is labeled with a callout box containing its name and acreage. The areas are arranged roughly from top to bottom. A scale bar and north arrow are located in the bottom right corner.

**Intertidal 2-A: 65.8 Acres**

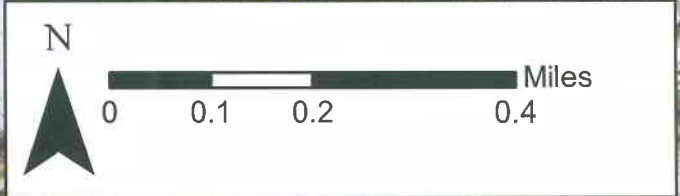
**Intertidal 2-B: 65.7 Acres**

**Intertidal 2-C: 56.9 Acres**

**Intertidal 2-D: 58.9 Acres**

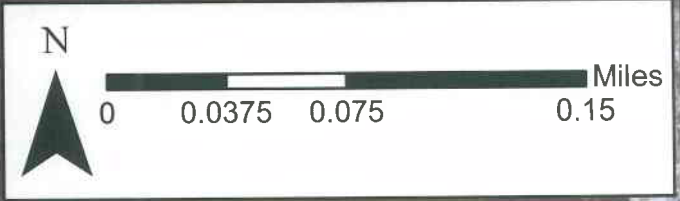
**Intertidal 2-E: 57.7 Acres**

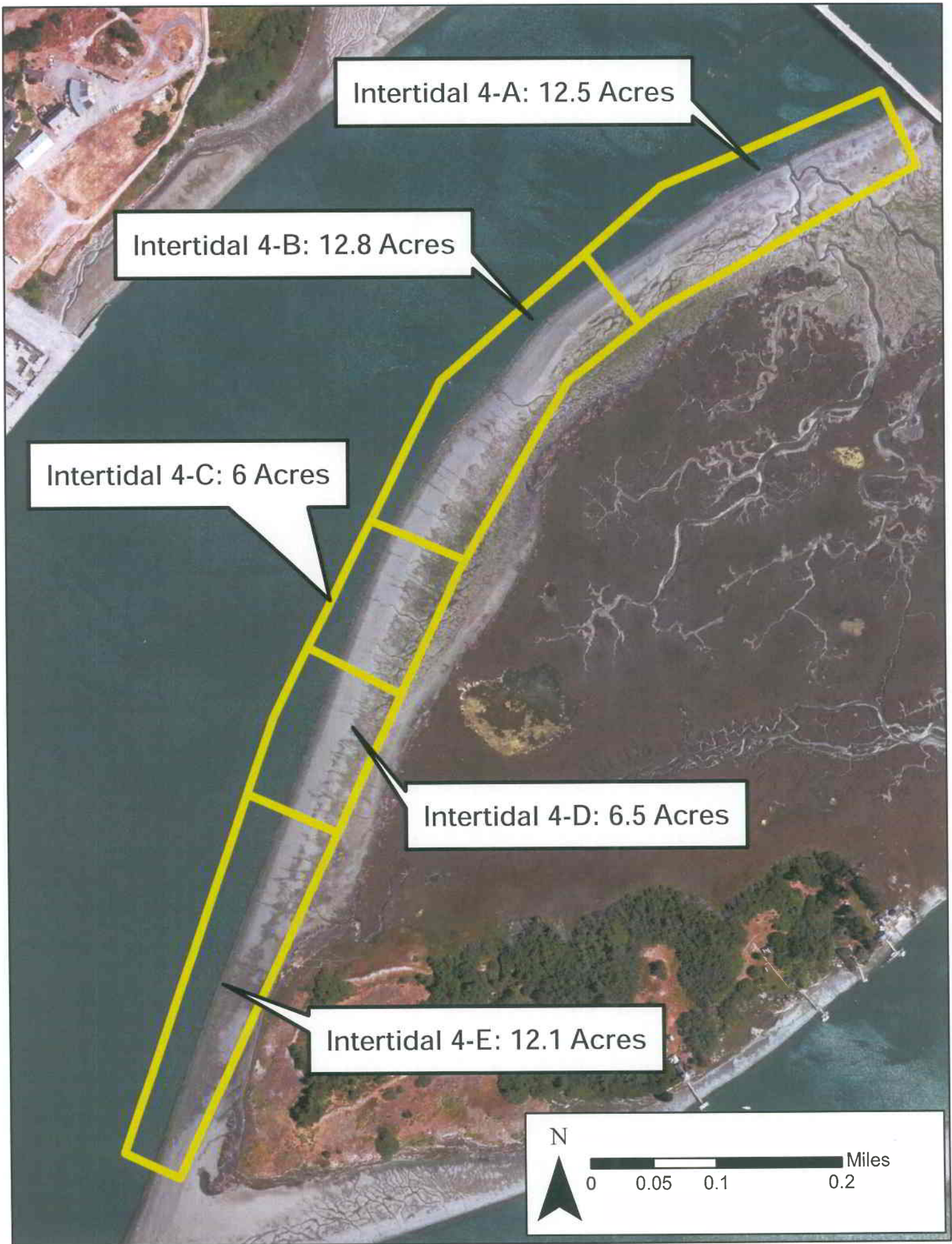
**Intertidal 2-F: 59.2 Acres**



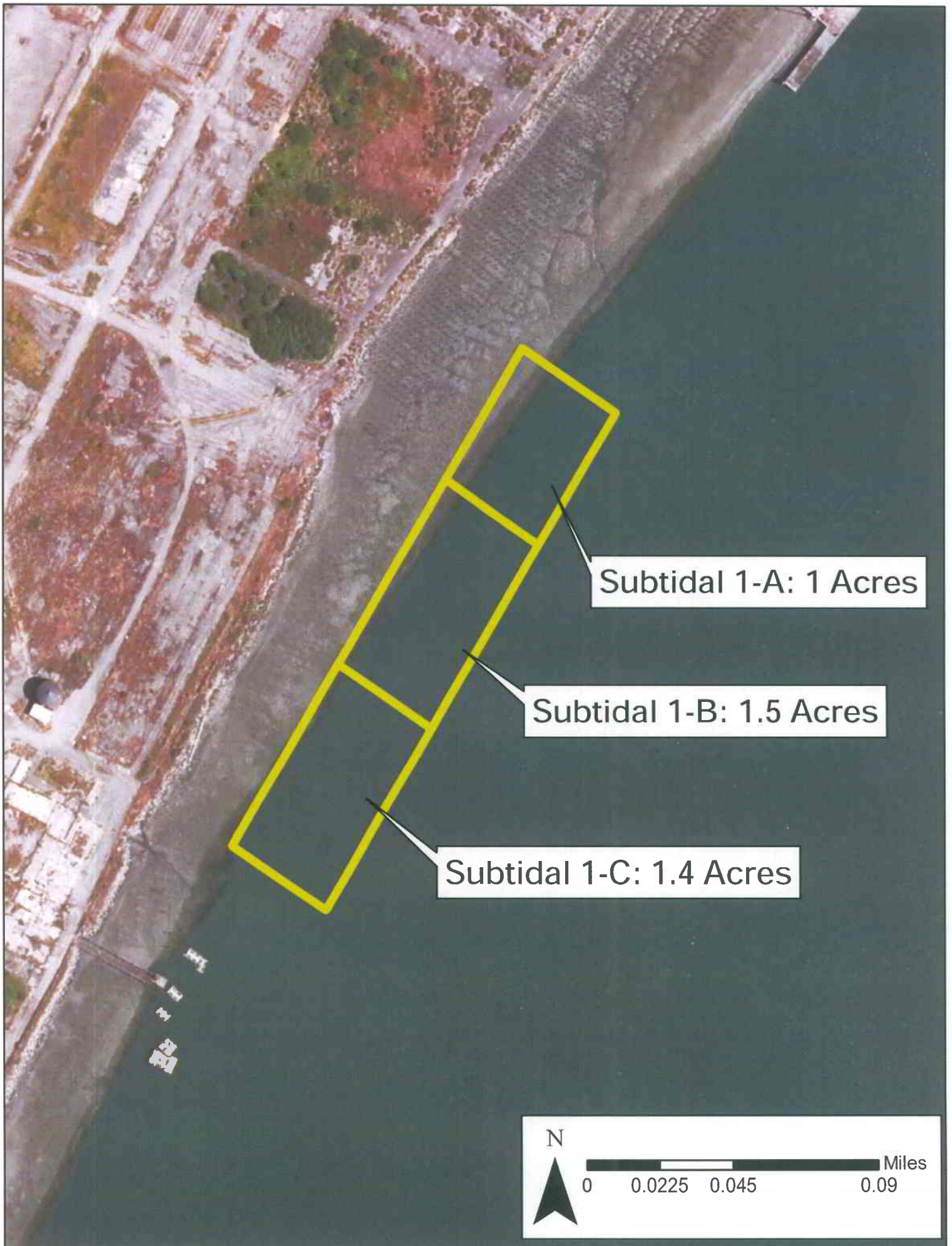


Intertidal 3-A: 13.6 Acres





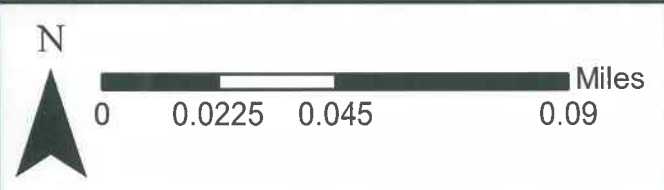




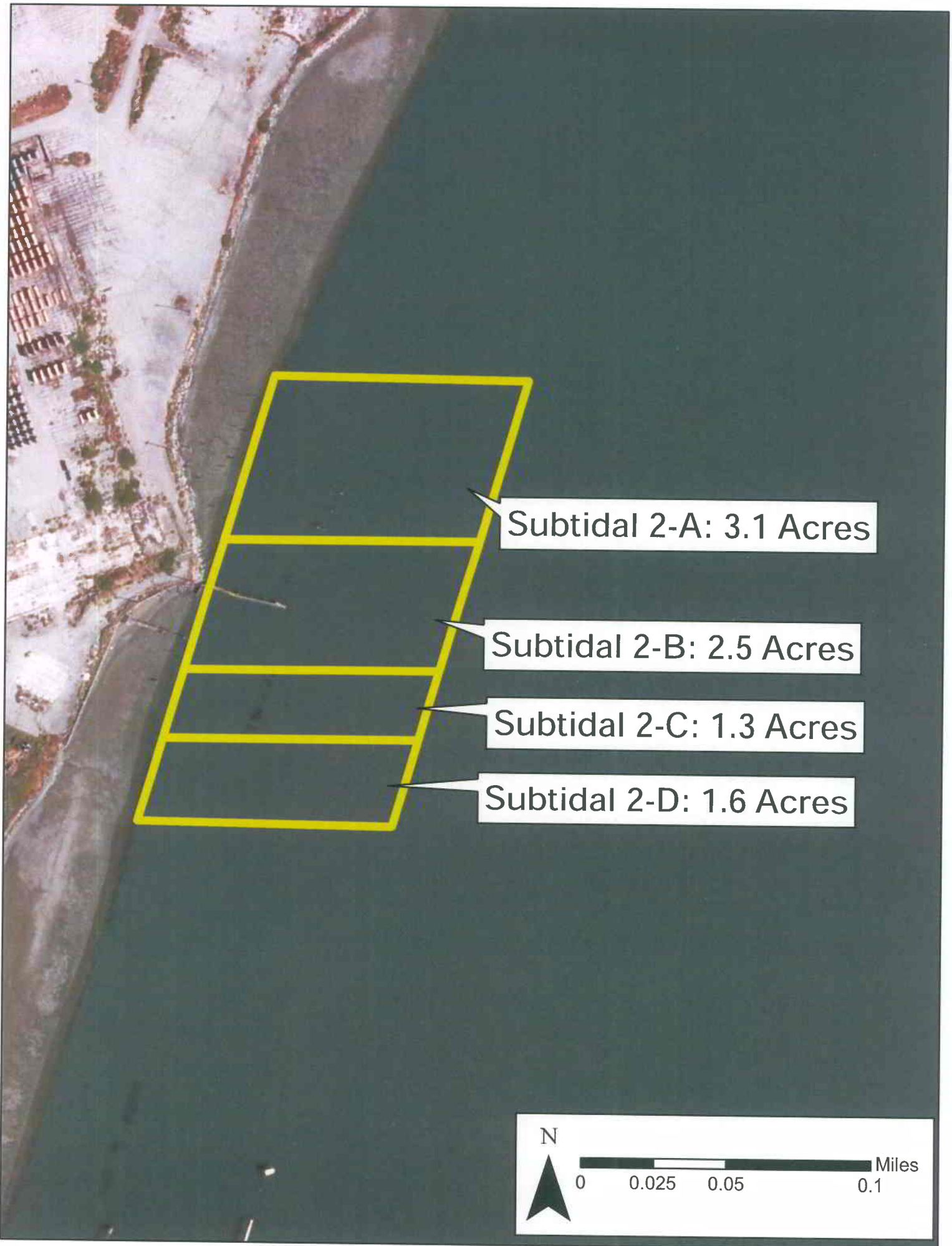
Subtidal 1-A: 1 Acres

Subtidal 1-B: 1.5 Acres

Subtidal 1-C: 1.4 Acres





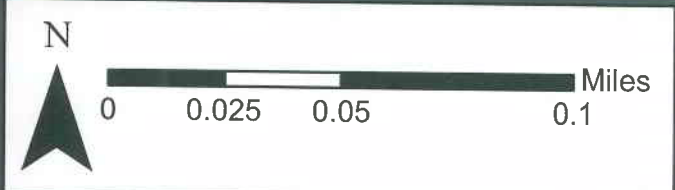


Subtidal 2-A: 3.1 Acres

Subtidal 2-B: 2.5 Acres

Subtidal 2-C: 1.3 Acres

Subtidal 2-D: 1.6 Acres





Subtidal 3-A: 2.2 Acres

Subtidal 3-B: 1.5 Acres

Subtidal 3-C: 1.6 Acres

Subtidal 3-D: 1.4 Acres

Subtidal 3-E: 2.0 Acres

