Appendix D

Habitat Management Plan Cost Estimate



REGULAR MEETING FORT ORD REUSE AUTHORITY (FORA) HABITAT WORKING GROUP (HWG)

and

SPECIAL MEETING OF THE FORA ADMINISTATIVE COMMITTEE

Friday, February 21, 2020 at 10:00 a.m.

910 2nd Avenue, Marina, CA 93933 (Carpenters Hall)

AGENDA

1. CALL TO ORDER

2. PUBLIC COMMENT PERIOD

Members of the public wishing to address the Committee on matters within its jurisdiction may do so for up to 3 minutes and will not receive Committee action. Whenever possible, written correspondence should be submitted to the Committee in advance of the meeting, to provide adequate time for its consideration.

3. BUSINESS ITEMS

4.	FUTURE AGENDA ITEMS	DISCUSSION
	e. Other discussion	
	d. CEQA Attorney - Habitat Conservation Plan (HCP) / EIR options	INFORMATION/ACTION
	c. Habitat Management Plan (HMP) - Cost Model presentation	INFORMATION/ACTION
	b. February 14, 2020 meeting recap	INFORMATION
	a. Today's Meeting Objective	INFORMATION

Receive communication from Committee members as it pertains to future agenda items.

5. ADJOURNMENT

NEXT MEETING: February 28, 2020

APPROVED



REGULAR MEETING

FORT ORD REUSE AUTHORITY (FORA) HABITAT WORKING GROUP (HWG) And

SPECIAL MEETING OF THE FORA ADMINISTRATIVE COMMITTEE

10:00 a.m. Friday, February 21, 2020 | Carpenters Union Hall

910 2nd Avenue, Marina, CA 93933

1. CALL TO ORDER

Co-Chair Jane Parker called the meeting to order at 10:05 a.m.

The following FORA Board and Administration Committee members were present: Supervisor Jane Parker (Monterey County) - Co-Chair Melanie Beretti (County of Monterey) Patrick Breen (MCWD) Councilmember John Gaglioti (City of Del Rey Oaks) Councilmember Alan Haffa (City of Monterey) Layne Long (City of Marina) Craig Malin (City of Seaside) David Martin (MPC) Steve Matarazzo (UCSC) Mayor Pro Tem Gail Morton (City of Marina) Vicki Nakamura (MPC) Councilmember Frank O'Connell (City of Marina) Mayor Ian Oglesby (City of Seaside) Supervisor Jane Parker (Monterey County) Dino Pick (City of Del Rey Oaks) Anya Spear (CSUMB) Hans Uslar (City of Monterey)

Members of the Consultant Team included: Kendall Flint (RGS) Aaron Gabbe (ICF) Erin Harwayne (DDA) Ellen Martin (EPS) David Willoughby (KAG)

2. PUBLIC COMMENT PERIOD

Public comment was received.

3. BUSINESS ITEMS

a. Today's Meeting Objective

Ms. Parker went over the agenda for the meeting and noted that the objective was to have a good conversation.

FORA Staff: Joshua Metz – Co-Chair Harrison Tregenza Habitat Working Group Committee Meeting Minutes

b. February 14, 2020 meeting recap

Mr. Metz noted that FORA attorneys are reviewing the JPA document with the jurisdictions' redlines and that they will bring it back for review and consideration at subsequent meetings.

c. Habitat Management Plan (HMP) – Cost Model presentation

Mr. Gabbe gave a presentation on the HMP cost model. He started by going over the methods and assumptions that he used to create the HMP cost model. He broke down the cost model by jurisdiction, species, acreage, and responsibilities and answered questions from the committee. He discussed the differences between the HMP and HCP, and the details regarding species' takes and mitigation. Ms. Morton asked if it would be possible for the Bureau of Land Management (BLM) to compile all reports from the last five years and have them posted on FORA's website. Mr. Metz affirmed that he'd work with Mr. Morgan of BLM to get all the reports and put them on the website for jurisdictions to access. Mr. Pick noted that the regulatory agencies will be in charge of these things, and would like them on the phone next time. Ms. Parker wrapped up the item due to time constraints and noted that this was a good conversation, but that it will need to be discussed in future meetings.

d. CEQA Attorney – Habitat Conservation Plan (HCP) / EIR options

Mr. Metz noted that as instructed by the FORA Board, FORA staff requested Holland & Knight (HK) provide a legal opinion regarding CEQA/NEPA ramifications regarding the HCP EIR/EIS. Mr. Willoughby walked the HWG through the legal memo provided by HK. He broke down the five options as laid out in the memo as well as the details of EIR certification. Mr. Willoughby then answered questions from members of the HWG regarding the contents of the memo. Following this, Ms. Flint gave a presentation on HCP/EIR considerations. She broke down HK's five options in terms of who the lead agency would be and the benefits and challenges of each. She then showed the HWG an action calendar for all the steps that would need to take place to publish and certify an EIR before FORA's sunset.

e. Other discussion None

4. FUTURE AGENDA ITEMS Not discussed.

5. ADJOURNMENT at 12:15 p.m.

Former Fort Ord Habitat Management Plan Cost Estimate

Habitat Working Group February 21, 2020

> Aaron Gabbe, Ph.D. ICF Bernadette Clueit, ICF Ellen Martin, EPS Erin Harwayne, DD&A



Draft Cost Estimates for each Jurisdiction to Implement the HMP

- HMP responsibilities
- Methods and assumptions to estimate HMP costs
- Draft cost estimate, by jurisdiction
- Conclusions

HMP Responsibilities

- Develop Resource Management Plans (RMPs) for Habitat Management Areas (HMAs)
- Annual reporting to USFWS, CDFW, BLM
- Environmental Compliance

HMP Responsibilities

- Habitat enhancement and maintenance
 - Non-native species control
 - Erosion control

- Vegetation management (controlled burns, grazing, mechanical)
- Road and trail maintenance
- Security and access control

Methods and Assumptions I

RMPs have not been developed!

 Not enough details about "what will be done" and "how much" to manage & restore to accurately estimate cost of HMP implementation

Methods and Assumptions I

- Costs for tasks extrapolated from the HCP cost model
 - Beyond scope to create new cost estimates and model for HMP
 - HCP cost model best guide HCP based on HMP
 - 50 + linked Excel worksheets

- Assumptions inform extrapolations
- Eliminated HCP-specific tasks (e.g., restore E. Garrison pond for CTS, HCP contingency fund)
- Reduced cost of some HCP tasks with less per unit effort under HMP (e.g., monitoring & adaptive management)

Cost Inflation Factor Table N-7a |Plant Monitoring

1.377097652 "'Baseline uses 1st "No statistical anal

"Baseline uses 1st year estimates from HCP only "No statistical analysis for baseline, some assumed after during monitoring "All plant surveys require same effort other than piperia

ne pani so vejo repute solire ellor Coler lunal riperio. "Source of species and habita data: exel winknook "CF HMP Data Request", Land Cover by HMA and HMP Species by HMA from Erin H. "Prot sar assumed to be 1 are in size per Worksheet M-7a Plant Monitor high "For abundance sampling, assume 10% of habita is surveyed every year

																	Monterey Cour	ıtv					Marina		Penninsula College	Regional Park Dist	UC	State Parks
					Avg Annual							Percent of		East Garrison	Habitat		Oak Oval	Parker Flats					Airport		Range 45	Natural Area	FONR \$2.1.2,	Fort Ord
Cost item	Notes	Unit	Unit/yr	\$/Unit	Cost (\$/yr) (Unit/yr * \$/Unit)	Interval (every x	Frequency (permit term/interval)	Total 50 Year Cost (\$/yr * frequency)	Frequency Codes	Fixed cost	Annual Cost per acre	acreage surveyed per year	East Garrison North E11a	South E11b.1- E11b.8 and E11b.11	Corridor L20.2.1	Travel Camp L20.2.2	E19a.2 (borderlands)	E19a.1 and E21b.1 (borderlands)	Landfill E8a.1 and E8a.2	Wolf Hill L20.3	Lookout Ridge L20.5	Salinas River L5.1.12	Reserve L5.1.11	Northwest Corner E2a	E20 E20	Expansion L6	\$2.1.3, \$2.1.5, \$2.3.2, \$2.4	Dunes \$3.1.2, \$3.1.1 and \$3.1.3
Monitoring CSUMB/ Covered Plants																												
Reconnaissance Studies (annually for 1st 10 years)																												
Species or Habitat Present? Yadon's Piperia (2 people)	114 ho		70	\$ 170	\$ 11,900	1	10	\$ 119,000		\$ 11,900															x 5 11.900			x
Robust Spineflower (2 people)	ho		70	\$ 170	\$ 11,900	1	10	• 110,000		\$ 11,900															•			\$ 11,900
 Areal Mapping Group 1: Sand Gilia, Monterey spineflower,																												
 seaside bird's-beak Species or Habitat Present?											acres		292 ×	308	184 X	84 X	71 x	340	510 X	154	7 X	8 X	127 X	66	569 ×	38 X		
Pilot (year 1 only) (2 people)	ho	urs	130	\$ 170	\$ 22,100	1	1	\$ 22,100 \$ 425,000	p1		\$ 44		\$ 12,906	\$ 13,614	\$ 8,133	\$ 3,713	\$ 3,138	\$ 15,028	\$ 22,542	\$ 6,807	\$ 309	\$ 354	\$ 5,613	\$ 2,917	\$ 25,150	\$ 1,680		
Every 10 years (2 people) statistical analysis hours		urs	20	\$ 170 \$ 170	\$ 85,000 \$ 3,400	10	5		am9 am9		\$ 0.17		\$ 1,241 \$ 50		\$ 782 \$ 31					\$ 655 \$ 26		\$ 34 \$ 1						
Group 2: Maritime Chaparral Species or Habitat Present?													6 X	203				170	36 X	77	1 x			55	206 X	18 X		
GIS mapping (every 10 years)		urs	20	\$ 170	\$ 3,400	10	6	\$ 20,400	10		\$ 0.02		\$ 0.12	\$ 4.08				\$ 3.40	\$ 0.72	\$ 1.54	\$ 0.02			\$ 1.10	\$ 4.12	\$ 0.36		
statistical analysis hours Group 3: Coast Wallflower	ho	urs	30	\$ 170	\$ 5,100	10	6	\$ 30,600	10		\$ 0.03		\$ 0.18	\$ 6.09				\$ 5.10 98	\$ 1.08 11	\$ 2.31	\$ 0.03			\$ 1.65 53	\$ 6.18 157	\$ 0.54		
Species or Habitat Present? Pilot (year 1 only) (2 people)		urs	40	\$ 170	s 8000	1					S 27							x \$ 2.666	x \$ 299					x \$ 1.442	x \$ 4,270			
Every 10 years (2 people)	hou	urs	40	\$ 170	\$ 6,800 \$ 6,800	10					\$ 3							\$ 267	\$ 30					\$ 144	\$ 427			
statistical analysis hours Abundance Sampling	hou	urs	20	\$ 170	\$ 3,400	10					\$ 1							\$ 133	\$ 15					\$ 72				
Sand Gilia (45 plots)												10%	146 15	127 13	30	36 4		99 10	284 28	77			2 0.2	24	206 21		562 56	146 15
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%	\$ 9,928	\$ 8,636	\$ 2,040	\$ 2,448		\$ 6,732	\$ 19,312	\$ 5,236			\$ 138	\$ 1,632	\$ 14,008		\$ 38,216	\$ 9,928
Annual (2 people) statistical analysis hours		urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48 48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76		\$ 8,825 \$ 1,103	\$ 7,676 \$ 960	\$ 1,813 \$ 227	\$ 2,176 \$ 272		\$ 5,984 \$ 748	\$ 17,166 \$ 2,146	\$ 4,654 \$ 582			\$ 121 \$ 15	\$ 1,451 \$ 181			\$ 33,970 \$ 4,246	\$ 8,825 \$ 1,103
Monterey Spineflower (45 plots)				•		-					· · · ·	10%	146	75	154	48	71	240	226	0.02	7	8	125	42		19	590 59	
Acres surveyed per year Pilot (year 1 only) (2 people)		urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	1076	\$ 9,928	\$ 5,100	\$ 10,472	\$ 3,264	\$ 4,828	\$ 16,320	\$ 15,368	\$ 1	\$ 476	\$ 544	\$ 8,500	\$ 2,856	\$ 14,008	2 \$ 1,292	\$ 40,120	\$ 42,976
 Annual (2 people) statistical analysis hours		urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48 48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76		\$ 8,825 \$ 1,103	\$ 4,533 \$ 567	\$ 9,308 \$ 1,164	\$ 2,901 \$ 383	\$ 4,292 \$ 536	\$ 14,507 \$ 1,813	\$ 13,660 \$ 1,708	\$ 1 \$ 0	\$ 423 \$ 53	\$ 484 \$ 60				\$ 1,148 \$ 144	\$ 35,682 \$ 4,458	\$ 38,201 \$ 4,775
Seaside Bird's Beak						-						10%		106			-	1		77				-	157	19	87	
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	1076		\$ 7,208				\$ 68		\$ 5,236					\$ 10,676	\$ 1,292	\$ 5,916	
Annual (2 people) statistical analysis hours		urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48 48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76			\$ 6,407 \$ 801				\$ 60 \$ 8		\$ 4,654 \$ 582					\$ 9,490 \$ 1,188	\$ 1,148 \$ 144	\$ 5,259 \$ 657	
Eastwood's Ericamena			20	•	• 0,100				4310		•	100	6	1/0				100						32	205	19	101	
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%	\$ 408	\$ 11,560				\$ 6,800						3 \$ 2,176	21 \$ 13,940	\$ 1,292	\$ 6,868	
Annual (2 people) statistical analysis hours		urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76		\$ 363 \$ 45	\$ 10,278 \$ 1,284				\$ 6,044 \$ 756						\$ 1,934 \$ 242	\$ 12,391 \$ 1,549	\$ 1,148 \$ 144	\$ 6,105 \$ 763	
Hooker's Manzanita			20	\$ 170	÷ 0,400		40	• 103,200	4540		•			58				170			1			V 2.12		•	0.36	
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%		6 \$ 3,944				17 \$ 11,560			0.1 \$ 68						0.036 \$ 24	
Annual (2 people) statistical analysis hours	hou	urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48 48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76			\$ 3,508 \$ 438				\$ 10,276 \$ 1,284			\$ 60 5 8						\$ 22 \$ 3	
Toro Manzanita			20	•	• 0,100				4310		•	1841		220				169		77	1						23	
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180 3	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%		22 \$ 14,960				17 \$ 11,492		5 5,236	0.1 \$ 68						2.3 \$ 1,564	
Annual (2 people) statistical analysis hours		urs	160	\$ 170	\$ 27,200 \$ 3,400	1	48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604 \$ 76			\$ 13,298 \$ 1,662				\$ 10,215 \$ 1,277		\$ 4,654 \$ 582	\$ 60						\$ 1,390 \$ 174	
Coast Wallflower			20	• 170	÷ 3,400		40	• 100,200	4370					1,002				98	11					53	157		185	195
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs			\$ 30,600		1	\$ 30,600	p1		\$ 680	10%						10 \$ 6,684	1 \$ 748					5 \$ 3,604	16 \$ 10,676		19 \$ 12,580	20 \$ 13,260
 Annual (2 people) statistical analysis hours	hou	urs	160	\$ 170	\$ 27,200 \$ 3,400	1	48	\$ 1,305,600 \$ 163,200	as48		\$ 604 \$ 76							\$ 5,924 \$ 740	\$ 665 \$ 83					\$ 3,204 \$ 400	\$ 9,490 \$ 1,188		\$ 11,182 \$ 1,398	\$ 11,787 \$ 1,473
Monterey Ceanothus	10	ur 3	20	¥ 1/U	- 3,400	-	40	 103,200 	4540		* 10		6	204				143	139	71	1			57	206	19	418	59
Acres surveyed per year Pilot (year 1 only) (2 people)	hou	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%	1 \$ 408	20 \$ 13,872				14 \$ 9,724	14 \$ 9,452	8 \$ 5,238	0.1 \$ 68			6 \$ 3,876	21 \$ 14,008	2 \$ 1,292	42 \$ 28,424	6 \$ 4,012
 Annual (2 people) statistical analysis hours	hou	urs	160	\$ 170	\$ 27,200 \$ 3,400	1	48 48	\$ 1,305,600	as48 as48		\$ 604 \$ 76		\$ 363 \$ 45					\$ 8,644 \$ 1,080	\$ 8,402 \$ 1,050	\$ 4,654 \$ 582	\$ 60			\$ 3,445 \$ 431		\$ 1,148 \$ 144	\$ 25,266 \$ 3,158	
Sandmat Manzanita			20	• 170	÷ 3,400		40	¥ 103,200	4370		* /6		146	274	248	142	72	369	304	11	49	43	129	63	206	19	590	936
Acres surveyed per year Pilot (year 1 only) (2 people)	ho	urs	180	\$ 170	\$ 30,600	1	1	\$ 30,600	p1		\$ 680	10%	15 \$ 9,928	27 \$ 18,632	25 \$ 16,864	14 \$ 9,656	7 \$ 4,896	37 \$ 25,092	30 \$ 20,672	8 \$ 5,230	5 \$ 3,332	4 \$ 2,924	13 \$ 8,772	6 \$ 4,284		2 \$ 1,292	59 \$ 40,120	94 \$ 63,648
 Annual (2 people) statistical analysis hours	hou	urs urs	160	\$ 170 \$ 170	\$ 27,200 \$ 3,400	1	48	\$ 1,305,600 \$ 163,200	as48 as48		\$ 604		\$ 8,825 \$ 1,103	\$ 16,562 \$ 2,070	\$ 14,990 \$ 1,874	\$ 8,583 \$ 1,073		\$ 22,304 \$ 2,788	\$ 18,375 \$ 2,297	\$ 4,654 \$ 582	\$ 2,962 \$ 370		\$ 7,797 \$ 975	\$ 3,808 \$ 476		\$ 1,148 \$ 144	\$ 35,662 \$ 4,458	
Maritime Chaparral (100 plots)			20	• 1/0	÷ 3,400	-	40	¥ 103,200	4540		- 10		6	203		÷ .,ars		170	36	11	1	- 323	- 313	55	206	18	337	+ 1,012
Acres surveyed per year Fire History map	ma	p			\$ 34,427		1	\$ 34,427		\$ 34,427		10%	1 5 186	20 \$ 8,296				17 \$ 5,2/3	4 \$ 1,117	8 \$ 2,388	0.1 \$ 31			6 \$ 1,/06	21 \$ 0,389	2 5 558	34 \$ 10,452	
Pilot (year 1) (2 people) 5-year interval (2 people)	hou	urs urs	840	\$ 170	\$ 142,800 \$ 85,000	1	1	\$ 142,800 \$ 935,000	p1		\$ 1,428 \$ 170		\$ 857 \$ 102	\$ 28,988 \$ 3,451				\$ 24,276 \$ 2,890	\$ 5,141 \$ 612	\$ 10,998 \$ 1,309	\$ 143 \$ 17			\$ 7,854 \$ 935			\$ 48,124 \$ 5,729	
statistical analysis hours	hou	urs	20	\$ 170	\$ 85,000 \$ 3,400	5	11	\$ 37,400	as10 as10		\$ 7		\$ 4	\$ 138				\$ 116	\$ 24	\$ 52	\$ 1			\$ 37	\$ 140	\$ 12	\$ 229	
 Other costs (both plants and wildlife) Project management (including team meetings,													148	275	253	145	73	372	308	79	196	43	130	63	206	19	606	979
organizing team client meetings, progress	hou		200	e 100	\$ 44,067	1	50	\$ 2,203,356	PM	\$ 44.067	s 11		\$ 1.632	\$ 3.033	\$ 2,790	\$ 1.599	\$ 805	\$ 4,102	\$ 3,397	\$ 871	\$ 2.161	s 474	\$ 1434	\$ 695	\$ 2,272	\$ 210	\$ 6.683	\$ 10,796
Data organization	hou	urs	80	\$ 138	\$ 11,017	1	50	\$ 550,839	PM	\$ 11,017	\$ 3		\$ 408	\$ 758	\$ 698	\$ 400	\$ 201	\$ 1,026	\$ 849	\$ 218	\$ 540	\$ 119	\$ 358	\$ 1/4	\$ 568	\$ 52	\$ 1,6/1	\$ 2,699
Creating/refining field forms Training field staff	hou hou	urs	80	\$ 138	\$ 11,017 \$ 11,017	1	50 50	\$ 550,839	PM	\$ 11,017 \$ 11,017	\$ 3		\$ 408 \$ 408	\$ 758	\$ 698	\$ 400	\$ 201	\$ 1,026	\$ 849 \$ 849	\$ 218	\$ 540	\$ 119	\$ 358	\$ 174	\$ 568	\$ 52	\$ 1,671	\$ 2,699
 GPS Equip purchase (year 1 only) GPS Equip maintenance annual	uni	t	10	\$ 6.885	\$ 68,855	1	1	S 68.855	PM1	\$ 6,885 \$ 13,771			\$ 1,530 \$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 1,530	\$ 2,295	\$ 2,295	\$ 2,295		\$ 6,885	\$ 6,885	
Annual monitoring reports	yea hou	ar urs	180	\$ 138	\$ 24,788	1	48 50	\$ 001,007 \$ 1,239,388	r Wi	\$ 13,771			\$ 2,754												\$ 24,788		 ™ ™ ™ 	 (0,11)

Acreage total MOCO Marina MPC MRPD SP UC

Methods and Assumptions II

- Most costs not readily extractable from HCP cost model
 - HCP costs estimated base-wide
 - HCP cost model assumes extensive sharing of resources
 - Staffing

- Knowledge (i.e., land management experts)
- Capital
- Extensive assumptions made and documented to allocate HMP costs to individual jurisdictions from HCP cost model line-items

Methods and Assumptions III

- Costs estimated for HMAs and development parcels with management responsibilities
- HCP cost categories used for HMP cost estimates
 - Allows direct comparison of relative costs
- Cost estimated per acre or linear feet, where feasible
- Cost allocated based on size of HMAs

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Table 1 Program Administration Cost Summary HCP Cooperative

Cost Item	Start Up Costs	Average Annual Costs
		0050.004
Staff Costs	\$0	\$352,881
Insurance	\$0	\$35,736
Office Space and Utilities	\$0	\$36,464
General Office Equipment [1]	\$47,785	\$11,600
GIS and Database Equipment	\$0	\$6,706
Vehicles and Fuel [2] [3]	\$55,084	\$7,436
Staff Training	\$0	\$900
Legal assistance	\$0	\$20,656
Financial analysis assistance	\$0	\$2,314
Education/ Outreach/ Public Relations	\$0	\$17,214
Total	\$102,869	\$491,907

 UC cell phones (within General Office Equipment) to the sum of \$1,377 not included in total capital costs Years 1-50.

[2] Reflects gas and utilization costs assuming each vehicle is driven 10,000 miles per year.

[3] Includes vehicle costs not anticipated until years 21-50.

HMP Implementation Cost Estimates

 HCP start-up costs not included in HMP cost estimate



Table 1Program Administration Cost SummaryHCP Cooperative

Cost Item	Start Up Costs	Average Annual Costs
Staff Costs	\$0	\$352,881
Insurance	\$0 \$0	\$35,736
Office Space and Utilities	\$0	\$36,464
General Office Equipment [1]	\$47,785	\$11,600
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Financial analysis assistance	\$0	\$2,314
Education/ Outreach/ Public Relations	\$0	\$17,214
Total	\$102,869	\$491,907

[1] UC cell phones (within General Office Equipment) to the sum of \$1,377 not included in total capital costs Years 1-50.

[2] Reflects gas and utilization costs assuming each vehicle is driven 10,000 miles per year.

[3] Includes vehicle costs not anticipated until years 21-50.

						Estim	ated Costs by Jurisdiction	n
Cost Item	HMP Cost Estimate Method	Start Up Costs	HCP Average Annual Costs	Monterey County	Marina	Peninsula College	Regional Park District	Del Rey Oaks
	20% of HCP costs for county;							
Staff Costs	10% for JDs with HMA, 5% for dev parcel JDs.		\$352,881	\$70,576	\$35,288	\$35,288	\$35,288	\$35,288
Insurance	0%		\$35,736	\$0	\$0	\$0	\$0	\$0
Office Space and Utilities	0%		\$36,464	\$0	\$0	\$0	\$0	\$0
General Office Equipment	0%		\$11,600	\$0	\$0	\$0	\$0	\$0
	50% of HCP costs for							
GIS and Database Equipment	each jurisdiction		\$6,706	\$3,353	\$3,353	\$3,353	\$3,353	\$3,353
Vehicles and Fuel [2] [3]	100% of HMA costs allocated by HMA acreage; see Table 3	Excluded [1]	\$7,436	\$5,922	\$756	\$660	\$61	\$38
Staff Training	20% of HCP costs for county; 10% for all others		\$900	\$180	\$90	\$90	\$90	\$90
	75% of HCP costs for							
Legal assistance	each jurisdiction		\$20,656	\$15,492	\$15,492	\$15,492	\$15,492	\$15,492
	100% of HCP costs for							
Financial analysis assistance	each jurisdiction		\$2,314	\$2,314	\$2,314	\$2,314	\$2,314	\$2,314
	100% of HMA costs allocated by							
Education/ Outreach/ Public Relations	HMA acreage; see Table 3		\$17,214	\$13,707	\$1,750	\$1,527	\$141	\$89
TOTAL			\$491,907	\$111,544	\$59,043	\$58,724	\$56,739	\$56,665

[1] Assumes jurisdictions will use their own vehicles and office equipment.

[2] Reflects gas and utilization costs assuming each vehicle is driven 10,000 miles per year.

[3] Includes vehicle costs not anticipated until years 21-50.

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Table 3 Summary of Management and Monitoring Cost by HMA

			Start-U		Average Annual Costs						
Jurisdiction / HMA	Habitat Restoration	HMA Management and Maintenance	Plant Monitoring	Wildlife Monitoring	Project Management	TOTAL	HMA Management and Maintenance	Plant Monitoring	Wildlife Monitoring	Project Management & Annual Reporting	ΤΟΤΑ
Ionterey County											
East Garrison North E11a	\$0	\$0	\$44,549	\$1,041	\$1,530	\$47,121	\$6,933	\$31,997	\$173	\$4,386	\$43,489
East Garrison South E11b.1-E11b.8 and E11b.11	\$0	\$0	\$132,810	\$3,143	\$1,530	\$137,483	\$119,292	\$88,873	\$4,370	\$6,837	\$219,372
Habitat Corridor L20.2.1	\$0	\$0	\$37,509	\$7,447	\$1,530	\$46,486	\$230,949	\$30,189	\$9,740	\$6,413	\$277,291
Travel Camp L20.2.2	\$0	\$25,000	\$19,081	\$2,557	\$1,530	\$48,168	\$120,494	\$15,739	\$4,285	\$4,328	\$144,847
Oak Oval E19a.2 (borderlands)	\$0	\$0	\$12,862	\$663	\$1,530	\$15,056	\$38,996	\$10,038	\$232	\$2,939	\$52,205
Parker Flats E19a.1 and E21b.1 (borderlands)	\$0	\$0	\$139,029	\$2,596	\$1,530	\$143,155	\$97,757	\$98,969	\$328	\$8,709	\$205,764
Landfill E8a.1 and E8a.2	\$207,253	\$0	\$94,351	\$6,268	\$1,530	\$309,403	\$8,854	\$68,444	\$1,147	\$7,474	\$85,920
Wolf Hill L20.3	\$0	\$0	\$46,372	\$2,132	\$1,530	\$50,034	\$73,542	\$28,227	\$4,572	\$3,055	\$109,396
Lookout Ridge L20.5 Resource Management Plan	\$0	\$0	\$4,495	\$7,334	\$1,530	\$13,360	\$41,365	\$4,061	\$4,100	\$5,313	\$54,838
(Encompasses all HMAs - update every 10 years)	\$0	\$200,000	\$0	\$0		\$200,000	\$20,000	\$0	\$0		\$20,000
Annual Monitoring Report	ψu	\$200,000	ψũ	ψŬ		\$0	\$20,000	ψū	ψü	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0		\$0	\$179,023	\$0	\$0	φ2 1,700	\$179,023
btotal Monterey County	\$207,253	\$225,000	\$531,059	\$33,182	\$13,771	\$1,010,264	\$937,206	\$376,537	\$28,947	\$74,242	\$1,416,932
		,			/					• •	., ,
arina Salinas River L5.1.12	\$0	\$0	\$3,822	\$303	\$2,295	\$6,419	\$814	\$3,503	\$99	\$5,420	\$9,836
Airport Reserve L5.1.11	\$0	\$0 \$0	\$23,021	\$908	\$2,295	\$26,224	\$2,090	\$17,969	\$264	\$7,099	\$27,422
Northwest Corner E2a	\$0	\$0	\$30,905	\$3,475	\$2,295	\$36,675	\$13,785	\$19,695	\$770	\$5,806	\$40,056
Resource Management Plan	ψu	\$ 0	<i>400,000</i>	<i>\$</i> 0,110	φ <u></u> 2,200	400,010	\$10,100	\$10,000		\$0,000	\$10,000
(Encompasses all HMAs - update every 10 years)	\$0	\$90,000	\$0	\$0		\$90,000	\$9,000	\$0	\$0		\$9,000
Annual Monitoring Report				\$0		\$0				\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0		\$0	\$89,511	\$0	\$0		\$89,511
ıbtotal Marina	\$0	\$90,000	\$57,748	\$4,685	\$6,885	\$159,319	\$115,200	\$41,168	\$1,133	\$43,113	\$200,613
nninsula College											
Range 45	\$183,154	\$0	\$152,280	\$1,449	\$6,885	\$343,769	\$140,536	\$109,391	\$214	\$17,747	\$267,888
Resource Management Plan											
(Encompasses all HMAs - update every 10 years)	\$0	\$50,000	\$0			\$50,000	\$5,000	\$0	\$0		\$5,000
Annual Monitoring Report						\$0				\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0		\$0	\$89,511	\$0	\$0		\$89,511
ubtotal Penninsula College	\$183,154	\$50,000	\$152,280	\$1,449	\$6,885	\$393,769	\$235,047	\$109,391	\$214	\$42,534	\$387,187
egional Park Dist											
Natural Area Expansion L6	\$0	\$38,534	\$11,268	\$2,791	\$6,885	\$59,479	\$19,535	\$6,947	\$8,054	\$14,138	\$48,673
Resource Management Plan	¢0	¢50.000	¢0	¢0		¢50.000	¢5.000	¢0.	¢0.		¢5 000
(Encompasses all HMAs - update every 10 years) Annual Monitoring Report	\$0	\$50,000	\$0	\$0 \$0		\$50,000 \$0	\$5,000	\$0	\$0	\$24,788	\$5,000 \$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0 \$0		\$0 \$0	\$89,511	\$0	\$0	\$24,788	\$24,788 \$89,511
Ibtotal Regional Park Dist	\$0 \$0	\$88.534	\$11.268	\$2,791	\$6.885	\$109,479	\$114,046	\$6.947	\$8.054	\$38.925	\$167,972
	ΨŬ	400,00 -	ψ11 <u>,</u> 200	ψ2,751	ψ0,000	ψ103, 1 13	ψ11 1 ,0 1 0	ψ0, 3 41	40,004	<i>400,020</i>	φ101,512
el Rey Oaks											
Office Park E31a,b,c	\$0	\$13,534	\$0	\$0	\$0	\$13,534	\$17,103	\$0	\$0	\$0	\$17,103
Resource Management Plan											
(Encompasses all HMAs - update every 10 years)	\$0	\$50,000	\$0	\$0		\$50,000	\$5,000	\$0	\$0	A04 700	\$5,000
Annual Monitoring Report Contracted Labor [2]	\$0	\$0	\$0	\$0 \$0		\$0	100 F11	\$0	\$0	\$24,788	\$24,788
ubtotal Del Rey Oaks	\$0 \$0	\$0 \$63.534	\$0	\$0 \$0	¢0	\$0 \$63,534	\$89,511 \$111,614	\$0 \$0	\$0 \$0	\$24,788	\$89,511 \$136,402
ibiotal Del Rey Oaks	\$0	\$03,334	\$ 0	30	٥U	\$63,534	\$111,014	şu	şu	\$24,766	\$130,402
C											
FONR S2.1.2, S2.1.3, S2.1.5, S2.3.2, S2.4	\$159,055	\$0	\$232,408	\$4,660	\$6,885	\$403,009	\$177,351	\$179,791	\$786	\$25,466	\$383,393
Resource Management Plan (Encompasses all HMAs - update every 10 years)	\$0	\$200,000	\$0	\$0		\$200,000	\$20,000	\$0	\$0		\$20,000
Annual Monitoring Report	ψŪ	φ200,000	φυ	\$0 \$0		\$200,000	\$20,000	ψŪ	40	\$24,788	\$20,000
Contracted Labor [2]	\$0	\$0	\$0	\$0 \$0		\$0	\$89,511	\$0	\$0	φ 2 4,700	\$89,511
btotal UC	\$159,055	\$200,000	\$232,408	\$4,660	\$6,885	\$603,009	\$286,862	\$179,791	\$786	\$50,254	\$517,692
ate Parks [3] Fort Ord Dunes S3.1.2, S3.1.1 and S3.1.3	\$1,761,176	\$26,601	\$133,824	\$8,678	\$6,885	\$1,937,164	\$62,192	\$133,824	\$83,444	\$32,664	\$312,125
Resource Management Plan	ψ1,/01,1/0	φ20,001	φ133,024	φ0,070	φ0,000	φ1,337,104	402,192	φ100,024	400, 444	φ32,004	φ312,1Z
(Encompasses all HMAs - update every 10 years)	\$0	\$200,000	\$0	\$0		\$200,000	\$20,000	\$0	\$0		\$20,00
Annual Monitoring Report			• •	\$0		\$0	• • • • • • •	• •		\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0		\$0	\$89,511	\$0	\$0		\$89,51
btotal State Parks	\$1,761,176	\$226,601	\$133,824	\$8,678	\$6,885	\$2,137,164	\$171,703	\$133,824	\$83,444	\$57,452	\$446,42
tal	\$2.310.638	\$943.670	\$1,118,587	\$55 445	\$48 198	\$4.476.538	\$1,971,678	\$847.658	\$122.578	\$331,308	\$3,273,22

Does not include capital costs or vegetation management at this time.
 Assumes 2 FTEs for Monterey County and 1 FTE for all others.
 Restoration assumptions reflect reduction for restoration and restoration planning on 210 acres that has occurred to date.

Cost Cotogowy	Average A	Innual Cost	- HCP (incl.	capital &	operational)	Average Annual Cost - HMP (incl. monitorting)						
Cost Category	County	Marina	MPC	MPRPD	Total	County	Marina	MPC	MPRPD	Total		
Program Administration*	\$399,805	\$49,976	\$44,978	\$4,998	\$499,757	\$185,786	\$102,156	\$101,258	\$95,664	\$484,864		
Habitat Restoration**	\$4,263	\$533	\$480	\$53	\$5,329	\$0	\$0	\$0	\$0	\$0		
HMA Management and Maintenance***	\$313,809	\$39,226	\$35,304	\$3,923	\$392,262	\$1,342,690	\$157,501	\$344,652	\$129,047	\$1,973,890		
Contingency and Remedial Measures	\$141,364	\$17,671	\$15,904	\$1,767	\$176,706	\$0	\$0	\$0	\$0	\$0		
Total Costs	\$859,243	\$107,405	\$96,665	\$10,741	\$1,074,054	\$1,528,476	\$259,657	\$445,910	\$224,711	\$2,458,754		

Table 4. HCP Permit Term Average Annual Costs for Cooperative-managed HMAs (HCP Table 9-3) and Average Annual Costs under an HMP

* Program Administration - Capital Costs from Table 2 plus Project Management & Annual Reporting

**HMP habitat restoration costs are included as start-up costs in Table 4

*** HCP cost does not include HCP which is covered by Cooperative. HMP cost includes monitoring

HMP Implementation Cost Estimates
 Development Parcels

- Costs harder to estimate
- Fewer Borderland tasks with costs in HCP cost model
- Less known about what will be done under HMP

Table 5. Jurisdictions with Development Parcels - Start-up Cost

		Juris	sdictions		
	Peninsula College	Del Rey Oaks	Seaside	City of Monterey	CSUMB
HMP Responsibilities					
Develop/arrange for management and conservation in consultation with BLM	\$0 - included in HMA management	\$30,000	\$30,000	\$30,000	\$30,000
Vehicle Access control	\$147,782 \$147,782	\$30,000	\$30,000	\$30,000	\$30,000

Table 6. Jurisdictions with Development Parcels - Average Annual Cost

	Jurisdiction									
_		Del Rey		City of						
Jurisdiction	Peninsula College	Oaks	Seaside	Monterey	CSUMB					
Size (ac)	335	206	423	31	333					
Interface with FONM										
(linear feet	20,290	6,260	14,740	0	2,617					
HMP Responsibilities										
Non-native species										
control	\$11,390	\$7,004	\$14,382	\$1,054	\$11,322					
Fuel breaks – construct										
and maintain	\$91,305	\$28,170	\$66,330	\$0	\$11,777					
Vehicle access control	\$55,200									
Status reports for										
borderlands	\$12,000	\$12,000	\$12,000	\$0	\$12,000					
Erosion control	¢15 251	¢E 766	¢11 550	\$0	¢2 277					
	\$15,351	\$5,766	\$11,559	Ф О	\$3,277					
HMP - Line item Total	\$130,046 -	¢=2.040	¢101051	¢1.054	¢20.254					
Annual Cost	\$185,246*	\$52,940	\$104,271	\$1,054	\$38,376					
HCP - Estimated Annual Cost										
Borderland										
Management	\$29,510	\$10,872	\$21,744	\$777	\$16,308					
*range without and includ		•	•							
range without and menu		01								

HMP Cost Savings

- HCP-specific mitigation measures not needed
- Fewer annual reporting requirements than HCP No:
 - Covered activities
 - Impacts

- HCP compliance
- No/lower program administration start-up costs Jurisdictions use existing facilities and equipment

HMP Cost Increases

Loss of economies of scale

- Develop own RMP & negotiates with USFWS, CDFW, BLM
- Individual environmental compliance
- No shared staffing in-house and contractor
 - CSUMB provides affordable staffing to HCP Cooperative
- No shared equipment

HMP Cost Increases

- HMP addresses 10 more species than HCP More:
 - Planning

- Monitoring
- Management
- Annual reporting
- HMA monitoring responsibilities shift from HCP Cooperative to local jurisdictions
- No incidental take permits for habitat management or development activities

Conclusions

Working together saves money

- More efficient for most or all jurisdictions to share habitat management responsibilities under the HMP
- Cost savings of implementing HMP as individual jurisdictions not likely to outweigh associated increases

Questions?

- We can walk you through assumptions and cost estimates for your jurisdiction
- Update assumptions and estimates ,as needed