

Former Fort Ord Habitat Management Plan Cost Estimate

Habitat Working Group
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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)**

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**

DRAFT

Table 1
Program Administration Cost Summary
HCP Cooperative

Cost Item	Start Up Costs	Average Annual Costs
Staff Costs	\$0	\$352,881
Insurance	\$0	\$35,738
Office Space and Utilities	\$0	\$38,484
General Office Equipment [1]	\$47,785	\$11,800
GIS and Database Equipment	\$0	\$8,708
Vehicles and Fuel [2] [3]	\$55,084	\$7,438
Staff Training	\$0	\$900
Legal assistance	\$0	\$20,658
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.

HMP Implementation Cost Estimates

- HCP start-up costs not included in HMP cost estimate

Table 1
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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
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[3] Includes vehicle costs not anticipated until years 21-50.

Table 2
Estimate of Program Administration Costs by Jurisdiction
HMP Program Administration Estimate

Cost Item	HMP Cost Estimate Method	Start Up Costs	HCP Average Annual Costs	Estimated Costs by Jurisdiction					
				Monterey County	Marina	Peninsula College	Regional Park District	Del Rey Oaks	
Staff Costs	20% of HCP costs for county; 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	
GIS and Database Equipment	50% of HCP costs for 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	
Legal assistance	75% of HCP costs for each jurisdiction		\$20,656	\$15,492	\$15,492	\$15,492	\$15,492	\$15,492	
Financial analysis assistance	100% of HCP costs for each jurisdiction		\$2,314	\$2,314	\$2,314	\$2,314	\$2,314	\$2,314	
Education/ Outreach/ Public Relations	100% of HMA costs allocated by 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.

Table 3
Summary of Management and Monitoring Cost by HMA

Jurisdiction / HMA	Start-Up Cost					Average Annual Costs					
	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	TOTAL
Monterey 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	\$3,065	\$109,396
Lookout Ridge L20.5	\$0	\$0	\$4,495	\$7,334	\$1,530	\$13,360	\$41,365	\$4,061	\$4,100	\$5,313	\$54,838
Resource Management Plan (Encompasses all HMAs - update every 10 years)	\$0	\$200,000	\$0	\$0	\$0	\$200,000	\$20,000	\$0	\$0	\$0	\$20,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$179,023	\$0	\$0	\$0	\$179,023
Subtotal 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
Marina											
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	\$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 (Encompasses all HMAs - update every 10 years)	\$0	\$90,000	\$0	\$0	\$0	\$90,000	\$9,000	\$0	\$0	\$0	\$9,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal Marina	\$0	\$90,000	\$57,748	\$4,685	\$6,885	\$159,319	\$115,200	\$41,168	\$1,133	\$43,113	\$200,613
Penninsula 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	\$0	\$0	\$50,000	\$5,000	\$0	\$0	\$0	\$5,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal Peninsula College	\$183,154	\$50,000	\$152,280	\$1,449	\$6,885	\$393,769	\$235,047	\$109,391	\$214	\$42,534	\$387,187
Regional 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 (Encompasses all HMAs - update every 10 years)	\$0	\$50,000	\$0	\$0	\$0	\$50,000	\$5,000	\$0	\$0	\$0	\$5,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal Regional Park Dist	\$0	\$88,534	\$11,268	\$2,791	\$6,885	\$109,479	\$114,046	\$6,947	\$8,054	\$38,925	\$167,972
Del 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	\$0	\$50,000	\$5,000	\$0	\$0	\$0	\$5,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal Del Rey Oaks	\$0	\$63,534	\$0	\$0	\$0	\$63,534	\$111,614	\$0	\$0	\$24,788	\$136,402
UC											
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	\$0	\$200,000	\$20,000	\$0	\$0	\$0	\$20,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal UC	\$159,055	\$200,000	\$232,408	\$4,660	\$6,885	\$603,009	\$286,862	\$179,791	\$786	\$50,254	\$517,692
State 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 (Encompasses all HMAs - update every 10 years)	\$0	\$200,000	\$0	\$0	\$0	\$200,000	\$20,000	\$0	\$0	\$0	\$20,000
Annual Monitoring Report	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$24,788	\$24,788
Contracted Labor [2]	\$0	\$0	\$0	\$0	\$0	\$0	\$89,511	\$0	\$0	\$0	\$89,511
Subtotal State Parks	\$1,761,176	\$226,601	\$133,824	\$8,678	\$6,885	\$2,137,164	\$171,703	\$133,824	\$83,444	\$57,452	\$446,424
Total	\$2,310,638	\$943,670	\$1,118,587	\$55,445	\$48,198	\$4,476,538	\$1,971,678	\$847,658	\$122,578	\$331,308	\$3,273,222

[1] Does not include capital costs or vegetation management at this time.

[2] Assumes 2 FTEs for Monterey County and 1 FTE for all others.

[3] Restoration assumptions reflect reduction for restoration and restoration planning on 210 acres that has occurred to date.

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

Cost Category	Average Annual Cost - HCP (incl. capital & operational)					Average Annual Cost - HMP (incl. monitoring)				
	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

* 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

	Jurisdictions				
	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				
Total	\$147,782	\$30,000	\$30,000	\$30,000	\$30,000

Table 6. Jurisdictions with Development Parcels - Average Annual Cost

Jurisdiction	Jurisdiction				
	Peninsula College	Del Rey Oaks	Seaside	City of 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	\$15,351	\$5,766	\$11,559	\$0	\$3,277
HMP - Line item Total Annual Cost	\$130,046 - \$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 including vehicle access control

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
- 