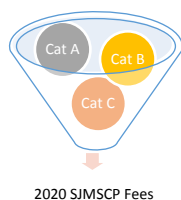


STAFF REPORT

SUBJECT: 2020 SJMSCP Development Fee Annual Adjustment

RECOMMENDED ACTION: Motion to Approve the 2020 SJMSCP Development Fees as Adjusted Pursuant to the Financial Analysis Model Identified in Table 4

DISCUSSION:



Using the adopted 5-year financial analysis model to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) approved in March 2016 by the SJCOG, Inc. Board, the SJCOG, Inc. staff, HTAC Financial Sub-committee members (Table 1) and consultants undertook the annual analysis in the summer of 2019. The goal of the annual analysis is to establish the next year's habitat plan fees. The fees are for impacts under the county-wide SJMSCP permits as defined in the three fee model categories (Category A - Acquisition, Category B - Assessment & Enhancement and Category C - Land Management/Administration).

Table 1 – HTAC Financial Sub-Committee Members:

John Beckman, BIA

Michael McDowell, Stockton

Kyle Stoner, CDFW

Dan Gifford, Conservation

Megan Aguirre, SJ County

The proposed 2020 SJMSCP development fees were adjusted using the adopted model for the respective categories and are compared to the 2019 SJMSCP Development fees where the changes occurred (Table 2) in the most common habitat categories under the plan. Table 4 details all categories of fees. The change is an overall decrease of **4.3% in the Multi-purpose, Agricultural and Natural habitat classifications** from the prior year. This is due primarily to a decrease in the land acquisition component (Category A) for agricultural land price values of comparable sales.



Table 2- Compared 2020 & 2019 SJMSCP Development Fees – Most Common Fee Habitat Type

	2020 Fee - Proposed	2019 Fee - Adopted	Difference
Agricultural/Natural	\$12,822	\$13,399	(\$577)

Table 3 illustrates the history of the SJMSCP development fees over the years since the funding shortfall was noted by the permitting agencies in 2006.

Table 3- History and Annual Percentage Change for SJMSCP Development Fees

Fee Category	2007 Financial Update#	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Multi-Purpose Open Space	\$6,511	\$6,165	\$7,052	\$7,307	\$6,631	\$7,195	\$6,364	\$6,656	\$7,281	\$7,807	\$8,905	\$9,701	\$6,700	\$6,412
Agriculture/Natural	\$13,022	\$12,329	\$14,104	\$14,615	\$13,262	\$14,372	\$12,711	\$13,295	\$14,543	\$15,596	\$17,808	\$19,400	\$13,399	\$12,822
Vernal Pools	\$69,858 (wetted)	\$71,125 (wetted)	\$78,353 (wetted)	\$80,760 (wetted)	\$77,720 (wetted)	\$81,989 (wetted)	\$78,311 (wetted)	\$80,972 (wetted)	\$85,631 (wetted)	\$90,273 (wetted)	\$109,737 (wetted)	\$116,871 (wetted)	\$101,033 (wetted)	\$100,788 (wetted)
	\$34,958 (upland)	\$35,143 (upland)	\$40,565 (upland)	\$42,071 (upland)	\$38,328 (upland)	\$41,534 (upland)	\$37,087 (upland)	\$39,047 (upland)	\$42,784 (upland)	\$46,869 (upland)	\$66,437 (upland)	\$72,523 (upland)	\$54,576 (upland)	\$52,833 (upland)
Percentage of Change Yearly		-5.3%	14.4%	3.6%	-9.3%	8.4%	-11.6%	4.6%	9.4%	7.2%	14.2%	8.9%	-30.9%	-4.3%

Projects which participate under the SJMSCP benefit from a pre-determined streamlined processing of the project rather than navigating through a potentially very long and cumbersome regulatory process outside the habitat plan. By opting for participation, the project can **choose** any number of ways to provide mitigation for the impacts of the project through the plan and even control much of the mitigation costs if desired. The options are:

1. Pay a fee;
2. Redesign the project to avoid/minimize impacts;
3. Provide land in lieu of the SJMSCP fee which the project will negotiate the easement/fee title costs (Category A component); or
4. Any combination of the above options.

Or, the project proponent can choose to not participate in the plan and fulfill mitigation requirements on their own with state and federal permitting agencies independently.

RECOMMENDATION:

Motion to Recommend to SJCOG, Inc. Approval of the 2020 SJMSCP Development Fees as Adjusted Pursuant to the Financial Analysis Model as follows:

Habitat Type	Category A	Category B	Category C	Total Fee	Rounded Fee
Other Open Space	\$4,072.00	\$1,916.00	\$424.16	\$6,412.16	\$6,412
Natural/Ag Lands	\$8,144.00	\$3,831.00	\$847.22	\$12,822.22	\$12,822
Vernal Pool Grasslands	\$34,978.00	\$15,274.00	\$2,580.93	\$52,832.93	\$52,833
Vernal Pool Wetted	\$34,339.00	\$63,915.00	\$2,533.80	\$100,787.80	\$100,788

FISCAL IMPACT:

Development fees provide funding for SJCOG, Inc. to mitigate project impacts covered under the SJMSCP permits for the subsequent calendar year beginning January 1st. Last year as reported in

the annual report, the habitat program received \$13,215,564 in developer fees while spending \$17,117,404 on mitigation and other related expenses.

BACKGROUND:

Annually, the SJMSCP development fees are reviewed and calculated using a formula method [$FEE = \text{Category A (acquisition)} + \text{Category B (assessment \& enhancement)} + \text{Category C (management \& admin)}$]. The three components of the formula are adjusted using a specific mechanism which relates to the individual component in the fee based on the most current data. The development fees established must be adopted by each of the jurisdictions and would become effective on January 1st of the subsequent year for projects using the SJMSCP.

Category A (acquisition) – Comparable Land Sales

This category is directly related to land valuation based on comparable land sales in San Joaquin County in specific zones of the plan area (Central Zone, Central/SW Transition Zone and Delta Zone) over an established 2-year period (Attachment 1). Valuation for this category are evaluated on a yearly basis by taking all qualified comparable sales in each zone, including SJCOG, Inc. easements, to set a weighted cost per acre using the same methodology from the 2016, 2017 and 2018 analysis but with a small adjustment to the easement to fee title percentage in 2019 moving forward.

The criteria to determine valid comparable sales in the weighted calculation are:

1. All SJCOG, Inc. transactions (fee title and appraised value of unencumbered property)
2. Sales not less than 40 acres
3. Sales not greater than 640 acres
4. No parcels with vineyard or orchard (except SJCOG, Inc. transactions for special needs)
5. Must be land which would fulfill mitigation under the plan
6. Not greater than 2 years old from the date of June 30th of each year with all acceptable comparable sales included (criteria 1-5). A minimum of 10 acceptable comparable sales are required for analysis. If the minimum of 10 transactions are not available, the time period will extend at 3-month intervals prior to the beginning date until 10 comparable sales are gathered.

In the current model including the adjustment to the easement to fee title percentage from 2019, the Category A analysis results in an **8% decrease** to the Agricultural/Natural Habitat types of Category A (acquisition) component to be **\$8,144.00**. The primary reasons for the decrease in the Category A component was land sale prices dipping.

Category B (assessment & enhancement) –Consumer Price Index w/ Model Data Update

The Category B component of the fee is adjusted using several factors including the California Consumer Price Index (CPI), as reported by the California Department of Finance for the preceding 12-month fiscal year (June 2018 – June 2019) and from the updated model numbers completed annually based on the SJMSCP Annual Report.

The **unit** cost factors (per acre or per year for some items) are adjusted only by the CPI (the California CPI calculation was an increase of **3.1%**), but the **total** cost for Category B is also a

function of the SJMSCP Annual Report data updated annually (acres remaining to be acquired and the number of years remaining in the permit term; the fee per acre is a function of those total calculated costs and the land conversion acres remaining) into the fee model.

The calculation results in a **2.8%** increase in the Agricultural/Natural Habitat types of Category B (Assessment & Enhancement) component to be **\$3,831.00**.

Category C (management & administration) –Consumer Price Index

Annual cost updates use the California Consumer Price Index (CPI), as reported by the California Department of Finance, for the preceding 12-month fiscal year (June 2018 – June 2019) to keep up with inflation. Again, the California CPI calculation was an increase of **3.1%**.

The calculation results in a **3.1%** increase in the Agricultural/Natural Habitat types of Category C (Management & Administration) component from prior years to be **\$847.22**.

In summary, the SJMSCP fees is calculated using the SJMSCP Financial Analysis formula model [FEE = Category A (acquisition) + Category B (assessment & enhancement) + Category C (management & admin)] shown in final fee table 4 below and Attachment 2 (SJMSCP Cost and 2019 Fee Analysis). The overall result in the fee analysis is a **4.3%** decrease in the most commonly impacted Multi-purpose, Agricultural and Natural Habitat Classifications fees for 2020.

Table 4 - 2020 SJMSCP Development Fees - Proposed

Habitat Type	Category A	Category B	Category C	Total Fee	Rounded Fee
Other Open Space	\$4,072.00	\$1,916.00	\$424.16	\$6,412.16	\$6,412
Natural/Ag Lands	\$8,144.00	\$3,831.00	\$847.22	\$12,822.22	\$12,822
Vernal Pool Grasslands	\$34,978.00	\$15,274.00	\$2,580.93	\$52,832.93	\$52,833
Vernal Pool Wetted	\$34,339.00	\$63,915.00	\$2,533.80	\$100,787.80	\$100,788

If approved by the Board, SJCOG, Inc. staff will work with the jurisdictions to adopt the new adjustment for the January 1, 2020 start date with each respective authority.

COMMITTEE ACTIONS:

- HTAC FINANCIAL SUB-COMMITTEE: Recommended approval to HTAC
- HTAC: Recommended approval to SJCOG, Inc. Board
- Management and Finance: Information
- Executive Committee: Staff Report Sent Prior to Action Taken
- SJCOG, Inc. Board: Action Required

Attachment 1 – 2020 Fee Study Property List - Props 24 Month

Address	APN	Zone	Sale Date	Price	Acres	Price/Acre	Hab Type	Appreciated Price	Appreciated Price/Acre
PRIOR PROP_ORT Prop 24	18425 N. Ray Rd., Lodi, CA		08/08/2017	\$432,000.00	43.26	\$9,986.13	C34	\$355,968.00	\$8,228.57
PRIOR PROP_ORT Prop 171	23335 Dodd Rd., Escalon, CA		08/21/2017	\$6,546,000.00	218.19	\$30,001.37	C34	\$5,393,904.00	\$24,721.13
PRIOR PROP_ORT Prop 178	21500 Hansen Rd., Tracy, CA		08/25/2017	\$1,500,000.00	45.07	\$33,281.56	C34	\$1,236,000.00	\$27,424.01
PRIOR PROP_ORT Prop 184	16211 W. Bethany Rd., Tracy, CA		09/08/2017	\$650,000.00	42.40	\$15,330.19	C34	\$540,800.00	\$12,754.72
PRIOR PROP_ORT Prop 183	14750 W. Bethany Rd., Tracy, CA		09/29/2017	\$1,400,000.00	97.49	\$14,360.45	C34	\$1,164,800.00	\$11,947.89
PRIOR PROP_ORT Prop 172	24135 Mariposa Rd., Escalon, CA		11/08/2017	\$1,000,000.00	40.00	\$25,000.00	C34	\$848,000.00	\$21,200.00
PRIOR PROP_ORT Prop 31	N. Watkinson Rd., Galt, CA		12/27/2017	\$680,000.00	40.26	\$16,890.21	G	\$582,080.00	\$14,458.02
PRIOR PROP_ORT Prop 4	5051 Liberty Rd., Galt, CA		01/03/2018	\$1,100,000.00	40.00	\$27,500.00	C34/G	\$950,400.00	\$23,760.00
PRIOR PROP_ORT Prop 189	18453 S. MacArthur Dr., Tracy, CA		01/04/2018	\$425,000.00	47.77	\$8,896.80	C34	\$367,200.00	\$7,686.83
PRIOR PROP_ORT Prop 186	20260 S. Lammers Rd., Tracy, CA		01/31/2018	\$900,000.00	57.22	\$15,728.77	C34	\$777,600.00	\$13,589.65
PRIOR PROP_ORT Prop 41	19150 E. Collier Rd., Clements, CA		02/22/2018	\$1,430,000.00	68.87	\$20,763.76	G/OG	\$1,246,960.00	\$18,106.00
PRIOR PROP_ORT Prop 53	McIntire Rd., Clements, CA		02/28/2018	\$545,000.00	41.48	\$13,138.86	C34/G	\$475,240.00	\$11,457.09
PRIOR PROP_ORT Prop 39 40	16780 E. Jahant Rd., Acampo, CA		03/21/2018	\$1,750,000.00	154.21	\$11,348.16	C34/G/O	\$1,540,000.00	\$9,986.38
PRIOR PROP_ORT Prop 51 52	20530 S. St. Rt. 12, Clements, CA		04/16/2018	\$1,550,500.00	161.43	\$9,604.78	C34/G	\$1,376,844.00	\$8,529.05
PRIOR PROP_ORT Prop 21B	10425 S. Jack Tone Road, Stockton, CA		03/20/2007 08	\$2,075,000.00	96.51	\$21,500.36	C34	\$1,859,200.00	\$19,264.32
PRIOR PROP_CTT Prop 25B	15809 Victory Road, Oakdale, CA		05/04/2018	\$2,900,000.00	104.22	\$27,825.75	C34	\$2,598,400.00	\$24,931.87
ORT prop 6	27900 N. Cherokee Lane, Galt, CA		08/18/2017	\$1,850,000.00	120.64	\$15,334.88	G	\$1,524,400.00	\$12,635.94
ORT Prop 110	16705 E. Mariposa Road, Stockton, CA		06/19/2018	\$320,000.00	62.00	\$5,161.29	C34	\$289,280.00	\$4,665.81
CTT Prop 72	8892 S. Van Allen Road, Escalon, CA		06/20/2018	\$3,383,682.00	390.51	\$6,104.02	C34	\$2,154,848.53	\$5,518.04
CTT Prop 116	19843 S. Central Hollow Road, Tracy, CA		08/03/2018	\$1,020,000.00	57.69	\$17,680.71	C34	\$938,400.00	\$16,266.25
CTT Prop 119	19298 Alder Avenue, Tracy, CA		08/24/2018	\$1,075,000.00	97.67	\$11,006.45	C34	\$989,000.00	\$10,125.93
CTT Prop 6-8	11355 N. Liberty Road, Galt, CA		09/14/2018	\$3,000,000.00	202.14	\$14,841.20	G	\$2,784,000.00	\$13,772.63
CTT Prop 106	12525 French Camp Road, Manteca, CA		09/27/2018	\$1,572,000.00	60.45	\$26,004.96	C34	\$1,458,816.00	\$24,132.61
CTT Prop 123	31613 Kasson Road, Tracy, CA		10/09/2018	\$5,586,000.00	296.00	\$18,871.62	C34	\$5,228,496.00	\$17,663.84
CTT Prop 228	19950 Diach Rd. Lockeford, CA		10/16/2018	\$2,850,000.00	112.23	\$25,394.28	C34	\$2,667,600.00	\$23,769.05
ORT Prop 187	8130 W. Linne Road, Tracy, CA		10/30/2018	\$1,245,000.00	49.85	\$24,974.92	C34	\$1,165,320.00	\$23,376.53
CTT Prop 34	7298 W. State Route 12, Lodi, CA		11/07/2018	\$1,250,000.00	64.03	\$19,522.10	C34	\$1,180,000.00	\$18,428.86
ORT Prop 136	1401 W. Ott Road, French Camp, CA		12/28/2018	\$2,690,500.00	128.10	\$21,003.12	C34	\$2,561,356.00	\$19,994.97
ORT Prop 208	6425 Dougherty Rd, Acampo, CA		12/31/2018	\$700,000.00	40.00	\$17,500.00	C34	\$666,400.00	\$16,660.00
ORT Prop 164	5455 W. Canal Blvd, Tracy, CA		03/15/2019	\$1,521,000.00	142.50	\$10,673.68	C34	\$1	

[illegible]

Address		APN	Zone	Sale Date	Price	Acres	Price/Acre	Hab Type	Appreciated Price	Appreciated Price/Acre
PRIOR PROP_CTT PROP 25 INFO ONLY	19200 W. Patterson Pass Rd., Tracy CA	209-100-03 11 14 251-320 05 06	SW	12/12/2017	\$2,400,000.00	750.01	\$3,199.96	G	\$2,335,200.00	
CTT Prop 138	19650 W Corral Hollow Road, Tracy, CA	263-200-32	SW	01/14/2019	\$425,000.00	60	\$7,083.33	BNC	\$421,812.50	
ORT Prop 152	26106 Patterson Pass Road, Tracy, CA	209-100-24	SW	03/13/2019	\$800,000.00	76.69	\$10,431.61	G	\$796,400.00	
					TOTAL	\$3,625,000.00	886.7	\$4,088.19	\$3,553,412.50	\$4,007.46

10 comparables required for Study

Attachment 2 – 2020 SJMSCP Cost and Fee Analysis Update

Table of Contents	List of worksheet tabs and contents
Notes to User	Model overview and instructions for annual updates
Fee Summary Comparison	Table showing calculated fee amounts by habitat type and category; comparison to adopted fees; linked from other sheets; includes California CPI factor for Category C annual update
A1 PerAcreCostFactorsbyZone	Per acre easement cost factors by zone based on input from comparables and appraisal analysis
A2 PerAcreAcquisitionCost	Weighted acquisition cost factors by habitat type based on distribution of preserves by zone; adds transaction costs
A3 AcquisitionCostHabitatType	Total acquisition cost by habitat type, for preserves remaining to be acquired
A4 AcquisitionFEE	Category A fee by habitat type, based on remaining land conversion
B1 PreserveEnhancementCost	Weighted enhancement cost factors by habitat type based on estimate of acres enhanced and detailed per acre enhancement cost factors
B2 AssessmentEnhancementCost	All assessment and enhancement cost factors by habitat type
B3 AssessEnhancementCostAllocation	Total assessment and enhancement cost by habitat type, remainder of permit term
B4 AssessmentEnhancementFEE	Category B fee by habitat type, based on remaining land conversion
C MonitoringAdminFEE	Category C fee by habitat type, based on remaining land conversion; links to summary comparison for annual update
For 5-Year Update Only =>	Workbook break: the following tabs for Category C are only used in the 5-year economic analysis update
C1 MonitoringCost	Monitoring cost factors by habitat type, including post-permit annual cost
C2 PMAdminCost	Project management and administrative cost factors , including post-permit annual cost
C3 Endowment	Endowment cash flow, return assumptions, and total in year 51 to support post-permit annual cost
C4 MonitoringAdminCostAlloc	Total monitoring, management, and administrative cost by habitat type, remainder of permit term and endowment for post permit cost
C5 MonitoringAdminFEE	Category C fee by habitat type, based on remaining land conversion
Source for update acres =>	Workbook break: the following tabs are updated annually and every 5 years for acres inputs
1 SJMSCP Acres 6_4_2015	Land conversion and preserve acres by habitat type for the 50-year permit term (source table)
2 RemainingPreservetoAcquire	Preserve Acres, Total and Remaining to be Acquired (from Table 1 and Annual Report updates)
3 Cumulative Take_Remaining	Allowed and Remaining Incidental Take Acreage (from Table 1 and Annual Report updates)
4 PreserveAcquisitionSchedule	Preserve Acquisition Schedule, All Habitat Types, by Index Zone, Remaining Permit Term (from Table 2)

This workbook of linked worksheets calculates SJMSCP Impact Fees for Categories A, B, and C.

The workbook contains all of the elements needed for annual updates as well as the framework for the more complex 5-year economic analysis updates.

Category A and **Category B** are fees for **one-time costs** for land acquisition, enhancement, restoration and associated site assessments and planning.

These fees will be updated annually by updating the per-acre cost factors **and** updating the *acres remaining to be acquired* and the *remaining acres of land conversion* based on data from SJMSCP Annual Reports.

- Category A per-acre cost factors updated by comparables analysis, as established in past practice
- Category B per-acre and annual cost factors updated by applying California CPI to unit cost factors
- The total costs in Category A and Category B for each annual update will reflect the *acres remaining to be acquired* and the fees for each annual update will reflect the *remaining acres of land conversion* from SJMSCP Annual Reports.

Category C is a fee for **on-going annual costs** for the remainder of the permit term and post-permit in perpetuity.

Annual updates for this fee Category will apply the California CPI to the prior year **fee** amount, as established in past practice.

- Incorporating Annual Report data in the annual updates of **on-going** permit term and post-permit costs adds unnecessary complexity to the annual update of this component of the SJMSCP fees.

- Updating annually the SJCOG, Inc. fund balance and budget analysis used to estimate costs in this category, as well as the endowment cash flow analysis required to estimate post-permit costs, are more complex work efforts not justified to generally keep Category C fees in line with annual cost inflation.

Moreover, because these costs are not as sensitive to habitat type, it is not as important to account for the annual variation in preserve acquisition and land conversion captured in the annual updates to Categories A and B.

Components of the workbook:

1. The Fee Summary Comparison worksheet compares calculated updated fees to fees currently in effect and includes the California CPI for Category C updates.
2. Category A tabs A1 - A4 calculate the fees for Category A Acquisition.
3. Category B tabs B1 - B4 calculate the fees for Category B Assessment and Enhancement.
4. Category C Fee tab shows the fees by habitat type calculated in the 2016 Economic Analysis, the basis for the subsequent annual fee update.
5. Category C tabs C1 - C5 calculate the fees for Category C Monitoring, Management, and Administration. *5-YEAR UPDATE ONLY*
6. Tables 1 - 3 provide background data on preserve acres and land conversion by habitat type, updated annually from the SJMSCP Annual Report; Table 4 showing the preserve acquisition schedule by habitat type and zone is used only in the 5-year update.

Fee Summary Comparison

Calculates new annual fees and compares to prior year adopted fees.

1. Paste values of prior year adopted fees in cells C11:E14.
2. Insert updated annual California CPI factor in cell F1.
3. Updated fees for Category A show in cells C5:C8 and updated fees for Category B show in cells D5:D8. The fees are linked to other tabs in this workbook.
4. Formulas in cells E5:E8 calculate Category C fee update amounts based on prior year adopted fee amounts in cells E11:E14.

Category A Acquisition

A.1 Category A Per-Acre Acquisition Cost Factors by Zone

1. Input results of annual comparables analysis for updated fee title values in Central Zone and Primary Zone of the Delta.
2. Fixed ~~70%~~ (61% approved - 2018 Analysis) valuation: Track Input results of annual analysis of SJCOG, Inc. appraisals (easement percent of fee title value). Update appraisal list each year and calculate weighted average percent by dividing cumulative total easement value (cost) by cumulative total before value (fee title value).
3. Value of Southwest Zone easement cost remains unchanged until experience indicates it should be updated.

A.2 Per-Acre Acquisition Cost Factors by Preserve/Habitat Type

No annual input needed. Links and formulas calculate total cost factors per acre for each habitat type.

1. Easement cost factor input linked from A.1.
2. Distribution by preserve type is not changed from 1996 Economic Analysis.
3. Transaction cost and VP acquisition assumptions not changed.

A.3 Total Acquisition Costs by Habitat Type, Remainder of Permit Term

No annual input needed. Links and formulas calculate total cost for each habitat type.

1. Land acquisition cost factors linked from A.2.
2. Preserve acres remaining to be acquired linked from Table 2 (updated annually based on SJMSCP Annual Report).

A.4 Fee Calculations

No annual input needed. Links and formulas calculate fee for each habitat type.

1. Cost by habitat type linked from A.3.
2. Land conversion remaining linked from Table 3 (updated annually based on SJMSCP Annual Report).

Category B Assessment and Enhancement

B.1 SJMSCP Preserve land by habitat type, enhancement analysis, and enhancement cost factors per preserve acre

1. 2016 Economic analysis included: refinement of natural lands detail and SJMSCP enhancement requirements refined, and update of costs for enhancements and restoration. Table calculates weighted average cost per preserve acre for agricultural lands, non-vernal pool natural lands, and vernal pool preserves. Update enhancement cost analysis every five years.
2. *Annually, in each shaded cell in table column 5 (Enhancement Cost per Acre), substitute prior year value in the formula. Formula references updated annual California CPI factor in cell E1. Formulas calculate updated weighted average cost per preserve acre.*
3. *Insert updated annual California CPI factor in cell E1.*

B.2 Category B Assessment, Planning, Restoration and Enhancement Cost Factors

1. Update remaining years in permit term.
2. *Annually, in each brown shaded cell in table, substitute prior year value for site assessment, management plans, and enhancement plans in the formula. Formula references updated annual California CPI factor in cell C1. Formulas calculate updated annual costs.*
3. *Insert updated annual California CPI factor in cell C1.*
4. Enhancement and restoration cost factors linked from B.1.

B.3 Category B Assessment, Planning, Restoration, and Enhancement Cost Allocation by Habitat Type

No annual input needed. Links and formulas calculate total cost for each habitat type.

1. Assessment and planning costs linked from B.2. Formulas calculate total enhancement and restoration costs from factors in B.2.
2. Preserve acres remaining to be acquired linked from Table 2 (updated annually based on SJMSCP Annual Report).

B.4 Fee Calculations

No annual input needed. Links and formulas calculate fee for each habitat type.

1. Cost by habitat type linked from B.3.
2. Land conversion remaining linked from Table 3 (updated annually based on SJMSCP Annual Report).

Category C Monitoring, Management, and Administration

C.5 Fee Calculations - Annual Update Only

No input needed. Cost and land conversion values frozen based on 2016 Economic Analysis.

1. For 2016 update, Category C fee amounts by habitat type linked to Fee Summary Comparison table.
2. Update annually by applying California CPI factor to prior year Category C fee amounts, as in past practice.

Note: this is done in the Fee Summary Comparison worksheet.

Category C Monitoring, Management, and Administration - INSTRUCTIONS FOR FIVE-YEAR UPDATE

C.1 Category C (part) Compliance and Effectiveness Monitoring Cost Assumptions

1. Update remaining years in permit term.
2. Preserve acres acquired and preserve acres remaining to be acquired linked from Table 2 (updated based on SJMSCP Annual Report).
3. Update monitoring cost factors (annual costs and annual costs per acre).
4. Total costs by type of monitoring for the remainder of the permit term calculated by worksheet formula.
5. Post permit cost updates by worksheet formula based on updates to detail in rows above. Acres input linked from Tables 2 and 4 (updated based on SJMSCP Annual Report).

C.2 Category C (part) Project Management and Administrative Cost Assumptions

1. Update remaining years in permit term.
2. Update annual management and administrative staff cost and cost allocation from analysis of Cumulative Schedule of Receipts and Disbursement in SJMSCP Annual Report, supplemented by cost code detail provided by SJCOG, Inc. staff.
3. Update Existing Preserve Fund Balance input (from SJMSCP Annual Report). Update fund balance allocation using analysis of category breakdown of cumulative fee revenue collected. Worksheet formulas calculate share of existing fund balance available to fund permit term costs and resulting net costs of Project Management and Administration for the remainder of the permit term.
3. Post permit cost updates by worksheet formula based on updates to detail in rows above.

C.3 SJMSCP Endowment Fund Cash Flow

This table uses estimates of annual post permit costs, existing fund balances, and interest earnings assumptions to estimate the endowment needed at the end of the permit term to fund annual costs in perpetuity.

This analysis is to be updated at each 5-year economic analysis review. The worksheet solves for fund balance amount in year 51 that generates the annual income to fully fund annual post permit costs. The worksheet calculates the annual fee revenue required over the remainder of the permit term to achieve that fund balance when added to the existing fund balance for management and administrative costs post permit and interest earnings over the remainder of the permit term. That amount is the total cost to be allocated by habitat type remaining to be acquired.

C.4 Category C Monitoring and Project Management/Administration, including endowment for post-permit costs, Cost Allocation by Habitat Type

No input needed. Links and formulas calculate total cost for each habitat type.

1. Monitoring costs linked from C.1, management and administrative costs linked from C.2; post-permit endowment cost linked from C.3. Formulas allocate total costs by habitat type.
2. Preserve acres remaining to be acquired linked from Table 2 (updated based on SJMSCP Annual Report).

C.5 Fee Calculations

No input needed. Links and formulas calculate fee for each habitat type.

1. Cost by habitat type linked from C.4.
2. Land conversion remaining linked from Table 3 (updated based on SJMSCP Annual Report).

Tables 1 - 4 (Source Tables)

Table 1 Land Conversion and Preserve Acres by Habitat Type for the 50-year permit term

This table was finalized on June 4, 2015 as part of the Economic Analysis update. This table provides the source data by detailed habitat type for the 50-year permit term totals.

Table 2 Preserve Acres, Total and Remaining to be Acquired

1. Total Preserve Acres by habitat type linked from Table 1.
2. Annually, update Total Preserve Acres Acquired through 12/31 from the SJMSCP Annual Report.
3. Total Preserve Acres Remaining to be Acquired calculated by worksheet formula; links to cost and fee calculation worksheets.

Table 3 Allowed and Remaining Incidental Take Acreage

1. Take Authorizations by habitat type linked from Table 1 and adding multi-purpose open space from SJMSCP Table 1-1 and Table 4.2-2.
2. Annually, update the Cumulative Acres of Take through 12/31 from the SJMSCP Annual Report.
3. Remaining Acres of Land Conversion calculated by worksheet formula; links to cost and fee calculation worksheets.

Table 4 Preserve Acquisition Schedule, All Habitat Types, by Index Zone, Remaining Permit Term - ONLY USED IN 5-YEAR UPDATE

This table is used in Table C.1 to calculate monitoring costs for the remainder of the permit term for preserves remaining to be acquired.

1. Preserve acres remaining to be acquired by zone linked from Table 2 (updated based on SJMSCP Annual Report).
2. At five-year update, update the years remaining in the permit term in Column C.
3. At five-year update, update the years remaining in the permit term in the denominator of the cell formulas.

	Category A	Category B	Category C		
2020 Fees - August 2019	Acquisition	Assessment & Enhancement	Monitoring, Management & Administration, & Post-permit Endowment	Total	Total Rounded
Other Open Space	\$4,072.00	\$1,916.00	\$424.16	\$6,412.16	\$6,412
Natural/Ag Lands	\$8,144.00	\$3,831.00	\$847.22	\$12,822.22	\$12,822
Vernal Pool Grasslands	\$34,978.00	\$15,274.00	\$2,580.93	\$52,832.93	\$52,833
Vernal Pool Wetted	\$34,339.00	\$63,915.00	\$2,533.80	\$100,787.80	\$100,788
	Category A	Category B	Category C		
2019 Fees - Adopted	Acquisition	Assessment & Enhancement	Monitoring, Management & Administration, & Post-permit Endowment	Total	Total Rounded
Other Open Space	\$4,425.00	\$1,864.00	\$411.41	\$6,700.41	\$6,700
Natural/Ag Lands	\$8,850.00	\$3,727.00	\$821.75	\$13,398.75	\$13,399
Vernal Pool Grasslands	\$37,259.00	\$14,814.00	\$2,503.33	\$54,576.33	\$54,576
Vernal Pool Wetted	\$36,581.00	\$61,994.00	\$2,457.61	\$101,032.61	\$101,033

Difference Per Acre (\$)	Acquisition	Assessment & Enhancement	Monitoring, Management & Administration, & Post-permit Endowment	Total	Total Rounded
Other Open Space	(\$353)	\$52	\$13	(\$288)	(\$288)
Natural/Ag Lands	(\$706)	\$104	\$25	(\$577)	(\$577)
Vernal Pool Grasslands	(\$2,281)	\$460	\$78	(\$1,743)	(\$1,743)
Vernal Pool Wetted	(\$2,242)	\$1,921	\$76	(\$245)	(\$245)

Percent Difference	Acquisition	Assessment & Enhancement	Monitoring, Management & Administration, & Post-permit Endowment	Total	Total Rounded
Other Open Space	-8.0%	2.8%	3.1%	-4.3%	-4.3%
Natural/Ag Lands	-8.0%	2.8%	3.1%	-4.3%	-4.3%
Vernal Pool Grasslands	-6.1%	3.1%	3.1%	-3.2%	-3.2%
Vernal Pool Wetted	-6.1%	3.1%	3.1%	-0.2%	-0.2%

FINANCIAL ANALYSIS UPDATE FOR ADOPTION - 08/22/2019

TABLE A.1

SJMSCP Fee Update - 2019 (for 2020 SJMSCP Development Fee Cycle)

Category A Per-Acre Acquisition Cost Factors by Zone (2019 dollars)

		Central Zone	Primary Zone of the Delta	Southwest Zone ³
Fee title value ¹	a	\$13,660	\$13,471	na
Easement percent of fee title value ²	b	61%	61%	na
Easement costs	a × b	\$8,333	\$8,217	\$1,000

1. SJCOG, Inc. Fee Study Property List, Table A and Table B

2. SJCOG, Inc. Appraisals as of May 2019

3. Based on standard easement cost in Southwest Zone of \$1,000/acre.

TABLE A.2

SJMSCP Fee Update - 2019 (for 2020 SJMSCP Development Fee Cycle)

Per Acre Acquisition Cost by Preserve/Habitat Type (2019 dollars)

Preserve/Habitat Type		SJMSCP Zone			Total Weighted Acquisition Cost	Transaction Costs ⁵	Total Land Acquisition Costs Per Acre
		Central Zone	Primary Zone of the Delta	Southwest Zone			
		A	B	C	A + B + C = D	D × 5% = E	D + E
Easement cost by zone ¹	d	\$8,333	\$8,217	\$1,000			
Agricultural Lands							
Percent in zone ²	e	98%	2%	0%			
Weighted costs ³	d × e	\$8,182	\$148	\$0	\$8,330	\$417	\$8,747
Natural Lands							
Non-vernal pool natural lands							
Percent in zone ²	f	77%	4%	18%			
Weighted costs ³	d × f	\$6,438	\$365	\$183	\$6,986	\$349	\$7,335
Vernal pool grasslands ⁴		n/a	n/a	n/a	\$10,928	\$546	\$11,474
Vernal pool wetted ⁴		n/a	n/a	n/a	\$10,928	\$546	\$11,474

1. See Table A.1.

2. Percent of total lands in each category assumed to be in a given zone. Based on 1996 Economic Analysis.

3. Weighted average cost based on generalized proportion of total preserve land in each zone. Assumes easement acquisition for lands categorized as agriculture and all natural lands except vernal pool habitat.

4. Assumes fee title acquisition for vernal pool lands. Vernal pool habitat fee title land costs assumed to be about 80% of average Central Zone fee title costs.

5. Transaction costs include biological baseline reporting, appraisal, escrow, and survey costs. Costs are estimated at 5 percent of acquisition cost.

TABLE A.3

SJMSCP Fee Update - 2018 (for 2019 SJMSCP Development Fee Cycle)

Total Acquisition Costs by Habitat Type, Remainder of Permit Term (2018 dollars)

Preserves by Habitat Type	Land Acquisition Cost Per Acre	Preserve Acres Remaining to be Acquired	Total Costs of Acquisition
Agricultural lands	\$8,747	48,230.17	\$421,869,297
Natural lands			
Non-vernal pool natural lands	\$7,335	17,553.52	\$128,755,069
Total for Natural/Ag Lands	\$8,370	65,783.69	\$550,624,366
Vernal pool grasslands	\$11,474	15,720.66	\$180,378,795
Vernal pool wetted	\$11,474	2,115.00	\$24,267,510

Sources: SJCOG, Inc., *SJMSCP 2015 Annual Report*, and Hausrath Economics Group.

TABLE A.4
SJMSCP Fee Update - 2019 (for 2020 SJMSCP Development Fee Cycle)
Category A Acquisition
Fee Calculations (2019 dollars)

Habitat Type	Preserve Land Acquisition
Costs associated with natural/agricultural lands conversion	\$550,624,366
Natural/Agricultural land conversion (acres) , remaining	50,256.68
Multi-purpose open space conversion (acres), remaining ¹	34,715.46
Multiplier for natural/agricultural land conversion	1
Multiplier for multi-ourpose open space conversion ¹	0.5
Acquisition Component of Natural/Agricultural Lands Fee	\$8,144
Acquisition Component of Multi-Purpose Open Space Fee¹	\$4,072
Costs associated with vernal pool grasslands	\$180,378,795
Vernal pool grassland conversion (acres), remaining	5,156.88
Acquisition Component of Vernal Pool Grasslands Fee	\$34,978
Costs associated with vernal pool wetted	\$24,267,510
Vernal pool wetted conversion (acres), remaining	706.70
Acquisition Component of Vernal Pool Wetted Fee	\$34,339

1. As described in SJMSCP Section 7.4.1.2, the fee calculation allocates the costs associated with agricultural habitat and non-vernal pool natural lands preserves to conversion of both those high value lands (agricultural land and non-vernal pool natural land) and lower value multi-purpose open space. In other words, the SJMSCP does not enhance multi-purpose open space lands but allocates some of the costs of enhancements on agricultural and natural lands preserves to the conversion of multi-purpose open space lands to assist with the financing of those enhancements.

Sources: SJCOG, Inc., *SJMSCP 2015 Annual Report* , and Hausrath Economics Group.

update annually, California CPI factor **3.1%** California CPI factor (June 2018 - June 2019)
 substitute value from prior year workbook in formula in shaded cells in table column 5.

TABLE B.1

SJMSCP Fee Update - 2018 (for 2019 SJMSCP Development Fee Cycle)

Category B Assessment, Planning, Restoration and Enhancement

SJMSCP Preserve land by habitat type, enhancement analysis, and enhancement cost per preserve acre (2018 dollars)

Habitat Type	Total Preserve Acres (including neighboring lands preserves)	Percent of Preserve Acres Enhanced ¹	Acres Benefiting from Enhancements	Perimeter Hedgerow or Other Linear Habitat Feature (acres) ²	Enhancement Cost per Acre ³	Total Enhancement Cost	Enhancement Cost per Preserve Acre
	1	2	3	4	5	6	7
Agricultural Habitat Lands⁴	57,935	10%	5,794	776	\$60,887	\$47,248,107	\$816
Natural Lands							
Ditches	378	33%	126		\$130,842	\$16,486,111	
Grasslands	14,559	33%	4,853		\$22,330	\$108,369,572	
Oak woodlands	858	33%	286		\$35,123	\$10,045,200	
Riparian	2,725	33%	908		\$103,311	\$93,841,147	
Submerged aquatic in the Delta	10	100%	10		\$75,340	\$753,403	
<i>Subtotal</i>	<i>18,530</i>		<i>6,183</i>		<i>\$37,115</i>	<i>\$229,495,433</i>	
Other natural lands ⁵	6,445	33%	2,148		\$37,115	\$79,735,745	
Subtotal Non VP Natural	24,975					\$309,231,178	\$12,382
Vernal pool wetted	2,121	33%	707		\$63,962	\$45,221,282	\$21,321
Vernal pool grasslands	15,811	33%	5,270		\$14,924	\$78,653,005	\$4,975
Subtotal All Natural Lands	42,907		14,309			\$433,105,465	
Total	100,842		20,103			\$480,353,572	

See notes on following page

1. Enhancement criteria derived from the SJMSCP, Section 5.4.6.

2. Unlike most other habitat types, agricultural lands are enhanced by treating linear features that run along the edge of or through fields--features such as roads or drainage ditches. In these cases, the land area of direct enhancement activity is substantially less than that area benefiting from the enhancement. This has the advantage of minimizing impacts to agricultural land production. Installing pollinator hedgerows at the edges of fields and grassland borders along irrigation and drainage ditches, and planting nest trees and associated shrubs and grasses, are enhancements used in the cost analysis to represent the range of types of agricultural land enhancements outlined in the SJMSCP. In addition to benefits to species, these linear features offer benefits of preventing soil erosion and reducing costs for weed control and linear water conveyance infrastructure maintenance. They also enhance the entire field they are associated with, meeting the 10 percent enhancement criterion while also minimizing loss of productive agricultural land. The enhancement cost estimate for agricultural lands is therefore based on the acres of hedgerow or other linear feature multiplied by the cost per acre to install hedgerows and similar linear features.

3. The enhancement cost applies to the acres where construction and/or installation actually takes place. In the case of hedgerows or other edge features, this is only the relatively small area of activity, not the total area that is thereby enhanced. Enhancement cost includes costs for materials, construction labor, and equipment. In addition to the installation activity, the cost per enhanced acre also includes a cost for project oversight and contract administration and three years of maintenance and monitoring. For vernal pool wetted restoration, the cost includes 15 years of post-restoration monitoring.

4. For agricultural habitat lands, a SJMSCP describes a broad range of enhancement activities and a generalized target of 10 percent enhancement; providing benefits to species without substantially reducing the amount of agricultural land in production. This can be achieved by implementing the linear features described in footnote 2. Pollinator hedgerows or similar linear features enhance the entire field that they are associated with, thereby counting toward the 10 percent enhancement criteria while taking substantially less land out of production.

5. Estimated based on the weighted average cost for all other non-vernal pool natural lands.

Sources: Table A.1, SJCOG, Inc., ICF, and Hausrath Economics Group

TABLE B.2

SJMSCP Fee Update - 2019 (for 2020 SJMSCP Development Fee Cycle)

Category B Assessment, Planning, Restoration and Enhancement Cost Factors (2019 dollars)

Remainder of Permit Term

Remaining years in permit term	31	used in formulae below to calculate costs for the remainder of the permit term
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Biological Site Assessment

Number of site visits per year	10	assumes 6 hours per visit
Annual cost	\$8,753	replace value from prior year workbook in formula before changing CPI every year
Total Site Assessment cost remainder of permit term	\$271,349	

Preserve Management Plan Preparation

Number of management plans per year	10	assumes 40 hours per plan
Annual cost	\$58,350	replace value from prior year workbook in formula before changing CPI every year
Total Preserve Management Plan cost remainder of permit term	\$1,808,865	

Preserve Enhancement Plan Preparation

Number of enhancement projects per year	5	assumes 40 hours per plan for each enhancement project
Annual cost	\$29,175	replace value from prior year workbook in formula before changing CPI every year
Total Preserve Enhancement Plan cost remainder of permit term	\$904,432	

Preserve Enhancements on Agricultural Lands

Enhancement cost per preserve acre	\$816
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Preserve Enhancements on Non-Vernal Pool Natural Lands

Enhancement cost per preserve acre	\$12,382
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Vernal Pool Creation/Enhancement

Enhancement cost per preserve acre	\$21,321
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Vernal Pool Upland Grassland Enhancement

Enhancement cost per preserve acre	\$4,975
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Sources: SJCOG, Inc., ICF, and Hausrath Economics Group

TABLE B.3
SJMSCP Fee Update - 2018 (for 2019 SJMSCP Development Fee Cycle)
Category B Assessment, Planning, Restoration and Enhancement (2018 dollars)
Cost Allocation by Habitat Type
Remainder of Permit Term

			Costs - Remainder of Permit Term				
			<u>Total cost allocated by preserve type percent of total preserve land remaining to be acquired</u>			<u>Cost per acre multiplied by preserve acres by type remaining to be acquired</u>	
Preserves by Habitat Type	Acres Remaining to be Acquired ¹	Percent of Total	Biological Site Assessment	Preserve Management Plans	Preserve Enhancement Plans	Preserve Enhancements	Vernal Pool Restoration
Agricultural lands	48,230.17	58%	\$156,509	\$1,043,322	\$521,660	\$39,333,464	na
Non-vernal pool natural lands	17,553.52	21%	\$56,962	\$379,720	\$189,860	\$217,341,168	na
Vernal pool grasslands	15,720.66	19%	\$51,014	\$340,071	\$170,036	\$78,203,577	na
Vernal pool wetted	2,115.00	3%	\$6,863	\$45,752	\$22,876	na	\$45,093,357
	83,619.35	100%	\$271,349	\$1,808,865	\$904,432	\$334,878,209	\$45,093,357

1. Includes 600 acres of neighboring lands preserves.

Sources: SJCOG, Inc., *SJMSCP 2015 Annual Report*, ICF, and Hausrath Economics Group.

TABLE B.4
 SJMSCP Fee Update - 2018 (for 2019 SJMSCP Development Fee Cycle)
 Category B Assessment, Planning, Restoration and Enhancement
 Fee Calculations (2018 dollars)
 Remainder of Permit Term

Habitat Type	Biological Site Assessment	Preserve Management Plans	Preserve Enhancement Plans	Agricultural and Non VP Natural Land Enhancement	Total for Agricultural and Non VP Natural Land (incl. assessment and plans)	Vernal Pool Restoration / Enhancement	Total for Vernal Pool (incl. assessment and plans)
Costs associated with natural/agricultural lands conversion	\$213,471	\$1,423,042	\$711,520	\$256,674,632	\$259,022,665		
Natural/Agricultural land conversion (acres), remaining	50,256.7	50,256.7	50,256.7	50,256.7	50,256.7		
Multi-purpose open space conversion (acres), remaining ¹	34,715.5	34,715.5	34,715.5	34,715.5	34,715.5		
Multiplier for natural/agricultural land conversion	1	1	1	1	1		
Multiplier for multi-purpose open space conversion ¹	0.5	0.5	0.5	0.5	0.5		
Assessment & Enhancement Component of Natural/Agricultural Lands Fee	\$3	\$21	\$11	\$3,796	\$3,831		
Assessment & Enhancement Component of Multi-Purpose Open Space Fee¹	\$2	\$11	\$6	\$1,898	\$1,916		
Costs associated with vernal pool grasslands	\$51,014	\$340,071	\$170,036			\$78,203,577	\$78,764,698
Vernal pool grassland conversion (acres), remaining	5,156.9	5,156.9	5,156.9			5,156.9	5,156.9
Assessment & Enhancement Component of Vernal Pool Grasslands Fee	\$10	\$66	\$33			\$15,165	\$15,274
Costs associated with vernal pool wetted	\$6,863	\$45,752	\$22,876			\$45,093,357	\$45,168,848
Vernal pool wetted conversion (acres), remaining	706.7	706.7	706.7			706.7	706.7
Assessment & Enhancement Component of Vernal Pool Wetted Fee	\$10	\$65	\$32			\$63,808	\$63,915

1. As described in SJMSCP Section 7.4.1.2, the fee calculation allocates the costs associated with agricultural habitat and non-vernal pool natural lands preserves to conversion of both those high value lands (agricultural land and non-vernal pool natural land) and lower value multi-purpose open space. In other words, the SJMSCP does not enhance multi-purpose open space lands but allocates some of the costs of enhancements on agricultural and natural lands preserves to the conversion of multi-purpose open space lands to assist with the financing of those enhancements.

Sources: SJCOG, Inc., SJMSCP 2015 Annual Report, ICF, and Hausrath Economics Group.

TABLE C.5 for Annual Update
 SJMSCP Fee Update - 2019 (for 2020 SJMSCP Development Fee Cycle)
 Category C Monitoring and Program Management/Administration, including endowment for post-permit costs
 Fee Calculations (2019 dollars)
 Remainder of Permit Term

Habitat Type	Project Management & Administration						Total
	<u>Monitoring</u>	Project Management	Administration	Land Manager Coordination	Financial Plan 5-Year Updates	<u>Post Permit Costs</u>	
Costs associated with natural/agricultural lands conversion	\$19,920,137	\$12,542,577	\$5,413,076	\$211,667	\$411,840	\$14,921,108	\$53,420,405
Natural/Agricultural land conversion (acres) , remaining	53,133.4	53,133.4	53,133.4	53,133.4	53,133.4	53,133.4	53,133.4
Multi-purpose open space conversion (acres), remaining ¹	35,288.7	35,288.7	35,288.7	35,288.7	35,288.7	35,288.7	35,288.7
Multiplier for natural/agricultural land conversion	1	1	1	1	1	1	1
Multiplier for multi-purpose open space conversion ¹	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Monitoring & Administration Component of Natural/Agricultural Lands Fee	\$281	\$177	\$76	\$3	\$6	\$211	\$755
Monitoring & Administration Component of Multi-Purpose Open Space Fee¹	\$141	\$89	\$38	\$2	\$3	\$106	\$378
Costs associated with vernal pool grasslands	\$4,443,040	\$2,797,529	\$1,207,347	\$47,211	\$91,858	\$3,328,043	\$11,915,028
Vernal pool grassland conversion (acres), remaining	5,180.8	5,180.8	5,180.8	5,180.8	5,180.8	5,180.8	5,180.8
Monitoring & Administration Component of Vernal Pool Grasslands Fee	\$858	\$540	\$233	\$9	\$18	\$642	\$2,300
Costs associated with vernal pool wetted	\$595,034	\$374,659	\$161,694	\$6,323	\$12,302	\$445,708	\$1,595,720
Vernal pool wetted conversion (acres), remaining	706.7	706.7	706.7	706.7	706.7	706.7	706.7
Monitoring & Administration Component of Vernal Pool Wetted Fee	\$842	\$530	\$229	\$9	\$17	\$631	\$2,258

Note: Accounts for existing preserve fund balances applied against these costs.

1. The fee calculation allocates the costs associated with agricultural habitat and non-vernal pool natural lands preserves to conversion of both those high value lands (agricultural land and non-vernal pool natural land) and lower value multi-purpose open space, thereby assisting with the financing of management and monitoring on agricultural and natural lands preserves.

Sources: SJCOG, Inc. and *SJMSCP 2014 Annual Report (February 2015 draft)*, ICF, and Hausrath Economics Group.

TABLE 1
2019 Economic Analysis and Fee Update
Land Conversion and Preserve Acres by Habitat Type for the 50-year Permit Term

Habitat Type	Land Conversion	Number of Preserve Acres to Land Conversion Acres	Total Preserve Acres for Compensation	Neighboring Land Protection Preserves	Total All Preserve Acres	Percent Total Acres
Agricultural lands¹	57,635	1.00	57,635	300	57,935	57%
Natural Lands						
Ditches ²	126	3.00	378		378	0.37%
Grasslands ³	4,853	3.00	14,559		14,559	14.44%
Oak woodlands ⁴	286	3.00	858		858	0.85%
Riparian ⁵	900	3.00	2,700	25	2,725	2.70%
Submerged aquatic in the Delta Zone	3	3.00	10		10	0.01%
Vernal pool grasslands ⁶						
VP - wetted surface area	707	3.00	2,121		2,121	2.10%
VP -upland grassland	5,187	3.00	15,561		15,561	15.43%
VP -Neighboring Land Protection preserves ⁷		na		250	250	0.25%
Other natural lands ⁸	2,140	3.00	6,420	25	6,445	6.39%
Subtotal Natural Lands	14,202		42,607	300	42,907	42.55%
Total	71,837		100,242	600	100,842	100.00%

NOTE: In the following footnotes, "type" refers to the mapped habitat unit identified in the SJMSCP Biological Analysis (Chapter 2). The following footnotes provide summaries only and the reader should refer to the Biological Analysis for a detailed description of each habitat type.

1. Neighboring Land Protection Preserves consist of ditched agricultural lands providing habitat for giant garter snake and pond turtle and other lands as needed for compensation to other covered species associated with agricultural land preserves,

2. Drainage ditches (unlined) generally found in agricultural fields (D types).

3. Valley grasslands (G types) and Foothill grasslands (G2 types).

4. Blue Oak woodlands, savanna and forests (BL types), Blue Oak Conifer woodlands, savanna and forests (BCN types), Valley Oak Woodland, savanna and forests (V types), and Mixed Oak Woodlands, savanna and forests (O types).

5. This category includes those portions of rivers and major streams located outside the Primary Zone of the Delta (Mokelumne, Calaveras, Stanislaus, and San Joaquin Rivers). These were originally included in a separate "Riparian Zone" during the SJMSCP planning process (i.e., "Riparian" refers to a zone rather than to the "Riparian" habitat type. The Riparian Zone was "absorbed" or combined into its surrounding zone (i.e., Central/Central-Southwest) in the final SJMSCP. It generally included River and Deep water channel (W), Tributary Streams (W2), Creeks-intermittent and perennial (W3, W3-i, W3-p), Dead-end sloughs (W-4) and their associated riparian habitats (Great Valley Riparian - R, R2, R3, R5, R4, S, S2). This category includes 25 acres of Neighboring Lands Protection Preserves for Valley elderberry longhorn beetle habitat.

6. Vernal pool grasslands (G3 type) .

7. The vernal pool preserves for Neighboring Land Protection consist of existing vernal pools (no creation requirement). Enhancements will benefit the tiger salamander.

8. This category includes all natural land types **except for Vernal Pools**. **Cost estimates in this category are an average of the costs of acquiring, restoring, enhancing the Natural Land categories specified in the preceding categories excluding Vernal Pools**. This category also includes natural lands not included in other categories: All Water Features (W types), Channel islands (I types), tule island and mudflat (I2) marsh, and Diablan sage scrub (S3 types) and all other types of Natural Lands.

TABLE 2
2019 Economic Analysis and Fee Update
Preserve Acres, Total and Remaining to be Acquired

Preserve/Habitat Type	Total Preserve Acres - 50-year Permit	Total Preserve Acres Acquired through 12/31/2018	Total Preserve Acres Remaining to Be Acquired (links to A.3, B.3. and C.4)
Agricultural lands	57,935	9,704.83	48,230.17
Natural lands			
Ditches	378	-	378.00
Grasslands	14,559	7,340.08	7,218.92
Oak woodlands	858	-	858.00
Riparian	2,725	50.80	2,674.20
Submerged aquatic in the Delta	10	-	10.00
Other natural lands	6,445	30.60	6,414.40
Subtotal non-vp natural lands	24,975	7,421.48	17,553.52
Total Non VP Natural/Ag Lands	82,910	17,126.31	65,783.69
Vernal pool wetted	2,121	6.00	2,115.00
Vernal pool grasslands	15,811	90.345	15,720.66
Total	100,842	17,222.66	83,619.35

Sources: Table 1 and SJCOG, Inc., 2018 Annual Report Table 6 and Table 12

TABLE 3
2019 Economic Analysis and Fee Update
Allowed and Remaining Incidental Take Acreage

Preserve/Habitat Type	Take Authorizations - 50-year Permit (including multi- purpose open space)	Cumulative Acres of Take through 12/31/2018	Remaining Acres of Land Conversion, (links to A.4, B.4. and C.5)
Agriculture	57,635	15,121.31	42,513.69
Multi-purpose (other open space)	37,465	2,749.54	34,715.46
Natural lands			
Vernal pool wetted	707	0.30	706.70
Vernal pool upland grassland	5,187	30.12	5,156.88
All other natural lands	8,308	565.34	7,742.99
Total	109,302	18,466.61	90,835.72

Sources: Table 1, SJMSCP Table 1-1 and Table 4.2-2; SJCOG, Inc., 2018 Annual Report Table 4 (revised)