



# A Review of the City of Elk Grove and South Sacramento County Swainson's Hawk Mitigation Programs

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The City of Elk Grove and Sacramento County have implemented ordinances to address loss of Swainson's Hawk foraging habitat from development through the CEQA process. The County of Sacramento has a Swainson's Hawk Mitigation Fund. They have tracked projects that have contributed money as well as conservation easements purchased. The County has not sufficiently tracked projects in an organized manner which may have used mitigation banks or provided their own mitigation lands. The County of Sacramento is in deficit for habitat compensation at a 1:1 ratio. Since 2005 the City of Elk Grove has also had a mitigation fund. In 2005 the City of Elk Grove purchased a vineyard and removed the vines to create foraging habitat to use as mitigation. Prior to the project the City of Elk Grove was in deficit for mitigation, but since they purchased the vineyard they have been able to provide mitigation at a 1:1 ratio. The City of Elk Grove has records for the credits purchased at mitigation banks as well as a record of all the easements purchased. Some ideas are provided that could help the programs be implemented better and provide better regional conservation for the species.

**A Review of the City of Elk Grove and  
South Sacramento County Swainson's Hawk  
Mitigation Programs  
Final Report**

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## Background

Friends of the Swainson's Hawk (FOSH), a California 501(c)(3) organization, was incorporated in 1994. It incorporated in response to the need to protect the Swainson's Hawk, a Threatened species under California law. Swainson's Hawks became listed as Threatened under the California Endangered Species Act (CESA) in 1983. FOSH has historically focused their conservation efforts in the Sacramento region as the Swainson's hawk breeding population in California is concentrated in Yolo, Sacramento, Solano, and San Joaquin counties making its survival a responsibility of this region.

This project supports the FOSH organization's adopted conservation strategy for the species and furthers FOSH's mission to see the California population of the species flourish for generations to come. One of FOSH's conservation objectives is to work with the resources agencies, partner organizations, and the public to preserve agriculture and promote quality mitigation for loss of farmland within the Swainson's Hawk's range. By conducting an independent analysis of the City of Elk Grove (Elk Grove) and Sacramento County Swainson's Hawk mitigation programs and sharing recommendations with the local governments and partner organizations the programs can be improved with the goal of maximizing quality habitat for Swainson's Hawks in the Sacramento area.

Sacramento County and Elk Grove have implemented their own Swainson's Hawk ordinances to address impacts to Swainson's Hawk foraging habitat that occur from development. Mitigation is assessed through the California Environmental Quality Act (CEQA) review process. Under their mitigation programs thousands of acres have been developed and protected with conservation easements for the purpose of providing wildlife habitat in perpetuity. FOSH has tracked the Elk Grove and Sacramento County programs for years and has occasionally contacted Elk Grove and the County when concerns have arisen about the programs. FOSH has written several letters with concerns about the programs operating at deficits. FOSH had collected data on the mitigation programs but had not analyzed the information. This report contains the results of the first phase of analysis.

Since the existing programs are conducted under CEQA they do not have the same monitoring and reporting framework that a Habitat Conservation Plan (HCP) normally provides. A HCP is approved by State and Federal regulatory agencies as part of a permit to take the covered listed species and their habitat. A HCP is being developed for the same area. Any information that FOSH can provide to the implementation team to help with the success of the HCP will be a benefit to the people living in the area, the local governments, and for the species' longevity in the region. For more information on HCPs see the FOSH Swainson's Hawk Conservation Strategy available at [www.swainsonshawk.org](http://www.swainsonshawk.org).

The boundaries of the project are Elk Grove and South Sacramento County south of the American River. Our project goals included developing a database of mitigation projects, a review of legal filings and the easement language, tracking of fee collection and expenditures, an examination of land use on mitigation sites, a review of nesting site proximity from known records, a comparison of mitigation sites with pre-development habitat values on developed sites, and a discussion of the parts of the program that are successful and the parts that need improving. Not all of the project goals were completed because some information was hard to obtain. As a result of this review, additional issues have been identified that could be addressed in a later phase of the project.

FOSH plans to use the materials developed to carry on an informed dialog about the open space conservation programs with Sacramento County, Elk Grove and the non-profits that hold the easements. FOSH will determine how to use the project findings to inform the public, the media and interested

groups and use them as a tool and an example when looking into other jurisdictions that are using similar conservation strategies.

## **Local Swainson's Hawk Ordinances that Comply With CEQA**

The Sacramento County and Elk Grove ordinances that require preservation of habitat are key to understanding the program. Summaries of the ordinances and mitigation programs are below.

### **City of Elk Grove Swainson's Hawk Mitigation Ordinance**

Elk Grove inherited the County program on incorporation (in 2000) and adopted its own revised project in 2004 (Chapter 16.130). The ordinance finds that expansion into agricultural land within the City that is also foraging habitat for Swainson's Hawks is a significant impact to the hawk under CEQA and requires mitigation. Impacts can come from zoning changes that reduce parcel sizes to less than 5 acres or conversion of land to nonagricultural uses. The California Department of Fish and Game (CDFG) determined that parcel sizes 5 acres or greater are the minimum size for viable foraging habitat. Therefore, the ordinance applies to any parcel 5 acres or larger that is within 10 miles of a Swainson's Hawk nest site.

The ordinance splits projects into two categories; impacts greater than 40 and less than 40 acres. The ordinance requires that projects 40 acres or greater provide direct preservation of equally suitable foraging habitat, either fee-title or easement on an acre-per-acre ratio, prior to disturbance and by the development project proponent. Along with the land provided, the proponent pays a fee, set by the Elk Grove City Council, which will provide an endowment for property management, monitoring and enforcement. For less than 40 acres the fees paid will be based on the cost set by the City Council, which as of January 2011 is \$18,325. For parcels less than 40 acres project proponents have the option of paying an impact mitigation fee to Elk Grove. The money is used to acquire available land (fee-title or conservation easement) with suitable Swainson's Hawk foraging habitat values.

Replacement habitat needs to be provided within the known foraging area for the hawk. The location and management organization needs to be acceptable to the CDFG as well as Elk Grove. The ordinance also states that the benefits of preserving land in proximity to other protected land will be considered. The ordinance applies to any project that goes through the environmental review process (CEQA process) and has been found to have a potentially significant impact on Swainson's Hawk foraging habitat. In order to streamline the process of finding suitable parcels CDFG preapproved areas that mitigation lands could be provided (see Figure 1). Elk Grove holds the conservation easements on the mitigation parcels and conducts the compliance with and enforcement of the easement. The Department of Fish and Game is a beneficiary of the easement.

### **Sacramento County Swainson's Hawk Protection Program**

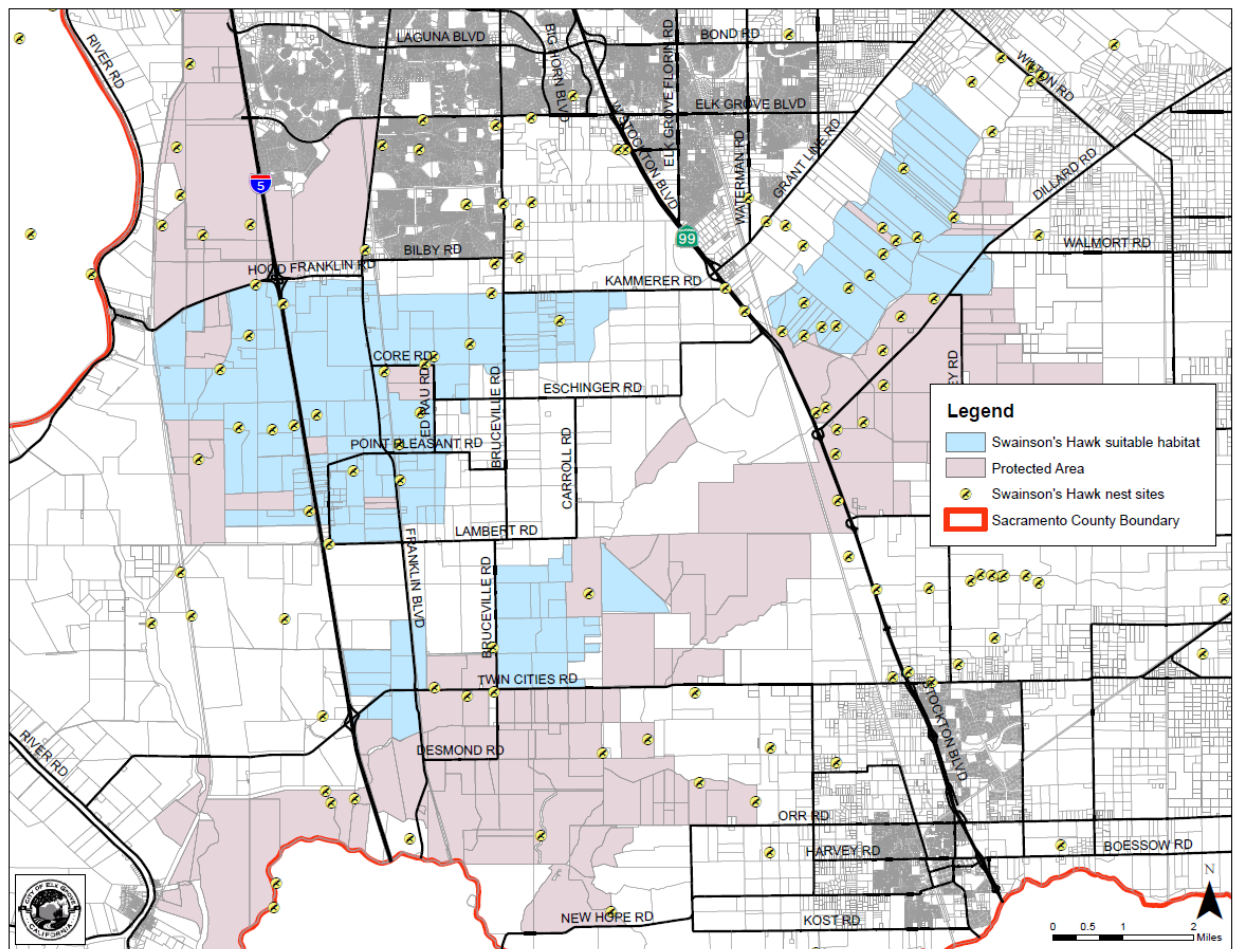
As part of the CEQA process the County Department of Environmental Review and Assessment (DERA) determines whether and how much a project will potentially impact Swainson's Hawk foraging habitat. The calculation is based on the existing zoning of the property and what the new zoning will be. Projects that don't request a zoning change mitigate based on the impact. The Swainson's Hawk Mitigation Program Fund is one of three ways habitat compensation can be provided. The Swainson's Hawk Mitigation Fund is a Planning Department program. If another option is used then it is DERA's responsibility to track.

Projects that have been determined to impact 40 acres and greater must provide fee title or easement to suitable Swainson's Hawk mitigation lands on an acre-per-acre basis prior to any site disturbance.



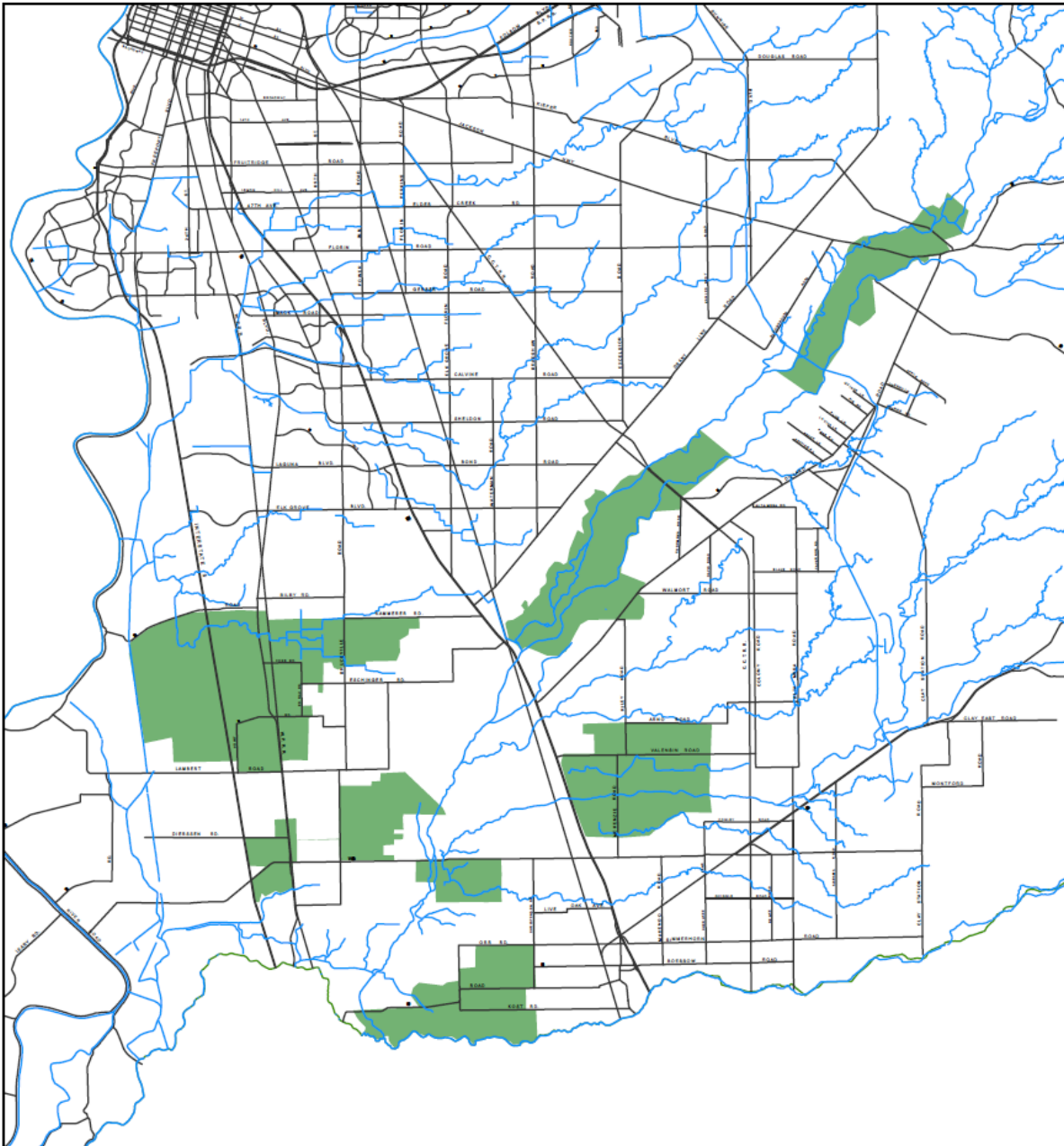
Mitigation sites must be within Sacramento County and outside the Urban Services Boundary. The land must also be owned or managed by a conservation organization and in locations acceptable to CDFG. In order to provide guidance CDFG and the County developed a map of where mitigation lands are pre-approved for mitigation (Figure 2). Any parcels within these areas still need to be inspected for the adequacy as foraging habitat. The project applicant is required to transfer the easement or fee title to the County, CDFG and a third party conservation organization. If the foraging habitat quality is tied to existing agricultural uses then the water rights also have to be protected. The County assesses fees to set up an endowment account for monitoring and enforcement plus a one-time \$500 administrative fee.

**Figure 1:** CDFG preapproved areas for Swainson’s Hawk foraging habitat mitigation for development within Elk Grove.



For projects that impact less than 40 acres the project applicant may pay into the Swainson’s Hawk Mitigation Fund (impact mitigation fee) or provide title or easement to suitable Swainson’s Hawk mitigation lands on an acre-per-acre basis. Projects with impacts less than 40 acres have to meet the same requirements as those for 40 acres or more if they choose the easement/fee title option. The fees for paying into the fund are \$10,550 per acre, \$2375 per acre endowment fee and a one-time \$500 administrative fee.

**Figure 2:** CDFG preapproved areas for Swainson’s Hawk foraging habitat mitigation of Sacramento County development.



## Potential Swainson's Hawk Mitigation Areas

Disclaimer: The green regions on this map represent information provided to the Planning Department from the California Department of Fish and Game. The purpose is to guide project applicants in selecting areas for potential Swainson’s Hawk mitigation lands. Not all areas shown in green will be acceptable, however the green regions represent geographic areas where there is a high likelihood that a particular parcel will be approved for Swainson’s Hawk mitigation. It is possible that areas outside the green regions will be approved as mitigation as well. All requests for approval of a particular parcel for mitigation should be directed to the Planning Department. A form and instructions to request approval of a parcel(s) for mitigation is available at [www.sacounty.net/planning/swainsons-hawk-ordinance/index.html](http://www.sacounty.net/planning/swainsons-hawk-ordinance/index.html).



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There are two other ways habitat compensation can be provided. Credits can be purchased at a mitigation bank or an applicant can develop a mitigation plan acceptable by CDFG. If CDFG approves the CEQA mitigation then Sacramento County will too.

## **Methodology**

FOSH has been gathering information on the aforementioned mitigation programs over the years and has had an interest in tracking and analyzing the data. This review of the program is being conducted to determine whether the programs are being implemented as they are intended to be.

We obtained project and mitigation information as well the conservation easements from Sacramento County, Elk Grove, The Nature Conservancy (TNC), The Sacramento Valley Conservancy (SVC) and CDFG. We reviewed the databases, the financial transactions, and the easement language and set up meetings with the easement holders, as feasible, to discuss how they conduct monitoring and easement compliance. We also conducted drive-by site visits to have a “snap shot in time” as to the condition of the parcels. The work was all done within the time period of March 2010 to January 2011.

We wanted to complete additional analysis that did not get done for this phase of the project. We wanted to assess the quality of habitat using aerial photos. We wanted to use that information to compare the preserved versus developed land and look at historical nest locations but the information was not readily available. Elk Grove has records for all of the transactions that include Swainson’s Hawk mitigation. Sacramento County has records for projects that have paid into the Swainson’s Hawk Mitigation Fund, but does not keep written records for projects that may have mitigated with their own land, used a mitigation bank, or had a mitigation package that was acceptable to CDFG. We hope that additional analysis can be conducted in a later phase of the project.

## **Products and Results**

As a result of this project FOSH has the following tools to help keep track of the mitigation programs:

- Copies of the easements that provide mitigation for Swainson’s Hawks in Elk Grove and South Sacramento County
- Database of mitigation areas with key information and site visit results for all areas that were visited
- Database of projects and fees collected that has been cross checked with the mitigation acreage
- Potential findings to recommend to the local agencies to improve the programs performance
- Program pros and cons that can be used to comment on the South Sacramento County HCP
- A framework to look at other programs and to continue to analyze parts of the Elk Grove and Sacramento County programs

## **Sacramento County Results**

Sacramento County has three options for providing habitat compensation for Swainson’s Hawk foraging habitat.

- The developer can write a check to the County for impacts less than 40 acres and the County is responsible for providing the habitat compensation. The fund is a fee program.
- If the impact is determined to be more than 40 acres the developer provides acreage in fee title or with a conservation easement on it.

- Developers also have the option of mitigating with a custom agreement with CDFG. The compensation can occur at a mitigation bank. We are not aware of any projects using this option.

### Sacramento County Swainson’s Hawk Mitigation Fund

FOSH is aware of 97 development projects that have mitigated using the Sacramento County Swainson’s Hawk Mitigation Fund – See Table 1. The fund is managed by the Sacramento County Planning Department. For earlier projects the data pertain to projects which passed the grading stage. Currently, because the mitigation is based on zoning it is not dependent on permits and earth moving activities. Sacramento County staff has done a good job tracking the projects that have used the fund, and accounting for the money that has been used to purchase easements.

**Table 1:** Summary of Sacramento County Swainson’s Hawk Mitigation Program

	<b>Sacramento County</b>
Year the fund was initiated	1997
Year the ordinance was developed and amended	1998 – clarify terms and conditions 2002 – expand areas where monies could be spent 2003 – raise mitigation fee and add endowment fee 2005 – set fees, mitigation ratio and change to impacts over 40 acres to provide land 2009 –reduce fees
Number of development projects using the mitigation fund	97
Number of development acres*	2037.99
Number of conservation easement parcels	6
Conservation easement parcel names and acreage	Allen            323.00 acres Larkin            310.00 acres Van Steyn        197.00 acres Stokes            119.00 acres Sloughhouse    11.85 acres McKenzie        34.14 acres
Acres under conservation easement	994.99
Number of fee-title parcels	0
Acres of fee- title land owned	0
Number of mitigation banks used	Potentially 2 or more
Acres purchased on mitigation banks	unknown
Fees collected for land/easement purchase**	\$2,988,017.75
Fees expended for land/easement purchase	\$3,052,963.82
O&M fees collected	\$259,135.10
O&M fees expended	\$249,433

\*Does not include all of the development acres in the County. Only includes the acres that we have identified as contributing money used to purchase conservation easements.

\*\*County shows a higher balance due to including interest accrued on the account



Sacramento County has worked with TNC and SVC to acquire conservation easements in perpetuity. All of the conservation easements besides McKenzie were purchased with money from the Swainson's Hawk Mitigation Fund. The McKenzie easement was purchased using a separate fund. Allen, Larkin, Van Steyn and Stokes easements were all purchased with parcel fees. Sloughhouse was a joint effort with the City of Rancho Cordova. Sacramento County used operations and management (O&M) money from the Swainson's Hawk Mitigation Fund for that purchase. McKenzie was conserved using an in-kind development and then sold the extra acres to other projects.

Allen, Larkin, Van Steyn and Stokes easements are all held by TNC. According to TNC staff Larkin and Allen did not come with endowments. O&M money was not collected by Sacramento County until 2003; Allen and Larkin conservation easements were purchased prior to that. TNC does an annual review of the easement and a compliance visit. They have an organization wide database to keep track of all of the easements they monitor. TNC staff said they have had no major violations on the parcels being managed for the County. Allen, Larkin, Van Steyn and Stokes are all located within the mitigation zone preapproved by CDFG in Figure 2.

Sloughhouse and McKenzie easements are held by SVC. Sloughhouse is a joint purchase in a larger parcel called Westerberg. SVC conducts easement compliance visits. SVC also uses a management plan as part of their easements. The management plans are not legally enforceable, but they are developed when the easements are recorded so all of the parties know how the parcel should be managed. Management plans for the parcels seem like a good management tool.

The McKenzie conservation easement was not purchased using money from the Swainson's Hawk Mitigation Fund. The easement was placed on that parcel to off-set impacts from a project adjacent to the site. The mitigation parcel was larger than the development so there were excess acres that were available to be used for other projects. The original project was 6.14 acres. Another 8 projects purchased credits at McKenzie between 2007 and 2010 at \$4,143 per acre. The money was tracked separately by planning department staff since the easement was not purchased through the mitigation fund. It seems like the McKenzie conservation easement was developed with a different set of criteria:

- The projects that mitigated at the site paid a fraction of the cost that projects paid using the Swainson's Hawk Mitigation Fund during the same time period
- The site is outside the CDFG preapproved areas in Figure 2
- Turn-key projects are normally a relatively quick turnaround, but projects were mitigating at the site over several years.

Sacramento County also has another turn-key site called the George Dairy Property, but we have not received information on the easement or the projects that have used that mitigation site. This is another project that should be followed up on.

Sacramento County's fee based mitigation program has not been able to keep pace with development. The County has spent most of the money that is in the Swainson's Hawk Mitigation Fund, but they have not been able to purchase enough to maintain a 1:1 mitigation ratio. The program is running at an over 50% deficit in conservation easement acquisitions. Fees were raised several times but the deficit has stayed relatively constant since 2004 – See Table 2 for a summary of the fee structure. A summary by year of the developed and conserved acres can be found in Table 3. Sacramento County's fee program is out of compliance with its own ordinance which requires a 1:1 habitat compensation ratio.

**Table 2:** Summary of the History of the Sacramento County Fee Structure

Year	Description	Land Fee/Acre	Operations and Management Fee/Acre	Administrative Fee
1996	Mitigation Fund	\$750	\$0	\$382
2003	Mitigation Fund	\$2500	\$333	\$382
2005	Mitigation Fund	\$16,000	\$2,375	\$500
2007-2010	McKenzie	\$4,143	n/a	n/a
2010	Mitigation Fund	\$10,550	\$2,375	\$500

Swainson’s Hawk Mitigation Fund fees should reflect the current costs of purchasing conservation easements so enough money is collected to mitigate at the ratio set in the ordinance. Conservation easements should be purchased every time the fund has enough money to purchase one. Money should not be held. Otherwise, in many cases the money in the fund can be devalued with inflation and as land prices rise. Prior to 2006 the entire mitigation program was a fee based program. In 2006 that was changed to projects with impacts less than 40 acres. Projects with impacts greater than 40 acres had to provide their own mitigation. According to Sacramento County records most of the projects that paid into the fund were small projects even prior to the amended ordinance. Of the 97 projects only 12 were over 40 acres. Since conservation easements are not purchased until enough money is collected the acres preserved will always be behind the acres developed. The ordinance should be revised to require the acres preserved to stay ahead of the acres developed for future transactions.

**Table 3:** Swainson’s Hawk Fund Summary of Land Developed and Preserved by Year in South Sacramento County

Year	Acres Developed	Acres Preserved	Cumulative Deficit
1998	186.87	0	-186.87
1999	155.42	225	-117.29
2000	391.25	98	-410.54
2001	335.39	0	-745.93
2002	257.56	0	-1003.49
2003	155.28	310	-848.77
2004	118.26	0	-967.03
2005	373.84	197	-1143.87
2006	28.48	119	-1053.35
2007	8.64*	11.85	-1050.14
2008	7.15	34.14	-1023.15
2009	16.6	0	-1039.75
2010	3.25	0	-1043
<b>Totals</b>	<b>2037.99</b>	<b>994.99</b>	<b>-1043</b>

\*McKenzie acres are added beginning in 2007

### Habitat Compensation Deficit

For this project it was assumed that all projects were mitigating at a 1:1 ratio as part of their CEQA mitigation requirement. The Sacramento County Ordinance did not require a compensation ratio of 1:1 until 2005. Sacramento County staff asserts that after the ordinance was changed in 2005 a 1:1 habitat compensation ratio has been achieved, and prior to that it was not required.

The Swainson's Hawk Fund should not have land deficits and still expect the mitigation to be adequate for the species or legal under CEQA. Because the study is still basing the value on a 1:1 ratio we still determine that over 1000 acres are owed through the fund. That is 50% of the mitigation obligation. Every time an acre of foraging habitat is developed Swainson's Hawks lose 50% of their habitat with a 1:1 acre habitat compensation ratio. With the current mitigation deficit, only 25% of the habitat is being preserved.

To determine what the true deficit is a review of CEQA documents from 1998 – 2005 needs to be done and project impacts and required mitigation amounts recorded. If Sacramento County had a comprehensive tracking system in place for their CEQA program a determination of compliance could be tracked easily. It is still assumed that a deficit up to 1000 acres has occurred.

Unfortunately, Sacramento County has made themselves responsible for ensuring mitigation is implemented by taking fees and establishing a mitigation fund. Fee based programs are not legal or adequate under CEQA. Somehow the County program has to make up the deficit and provide the additional habitat that has been required through the CEQA process. Operating at a deficit is also a good reason to start thinking about higher than 1:1 mitigation ratios. Other habitats such as wetlands, vernal pools, and riparian are mitigated at higher ratios.

Some ideas that could help correct the deficit include:

- Provide permanent Swainson's Hawk easements on county owned land such as Regional Sanitation District although the habitat would have to be managed as Swainson's Hawk foraging habitat and could not be on land unlikely to be developed
- Require higher than 1:1 mitigation ratios in the HCP to ensure enough habitat is preserved to maintain and recover the Swainson's Hawk population in South Sacramento County
- Seek money through foundations and partner organizations to purchase land/easements
- Assess a reconveyance fee for development approved but not fully mitigated

### **Sacramento County Non-Fund Swainson's Hawk Mitigation**

The amount and location of mitigation required and fulfilled outside of the Sacramento County Mitigation Fund has been hard to track. Although Sacramento County has a process for approving Swainson's Hawk mitigation required in the CEQA process, it is decentralized and without comprehensive oversight. If projects do not use the mitigation fund they can either find their own parcel or implement a compensation package approved by CDFG. These projects are tracked by DERA; not by the planning department. DERA checks off whether all of a project's CEQA mitigation measures have been implemented through their Mitigation Monitoring and Reporting Program (MMRP). They do not keep a centralized database of how mitigation measures were implemented. We have not been able to comprehensively identify projects outside the Swainson's Hawk Mitigation Fund that have provided mitigation.

Developers have to provide their own mitigation for projects that have been determined to have greater than 40 acres of impacts. This can be either fee-title or easement. This option has only been available since 2006. The process does not seem to be well exercised. The requirements are laid out in the County Ordinance (summary above) or full Ordinance on the Sacramento County website [www.msa2.saccounty.net/planning/Pages/Swainsons-Hawk-Ordinance.aspx](http://www.msa2.saccounty.net/planning/Pages/Swainsons-Hawk-Ordinance.aspx). Developers have to fill out a form requesting approval of the parcel they would like to set aside. We have copies of the forms for 4 projects but there is no indication whether the projects moved forward and parcels were set aside.

A complete review of Sacramento County's CEQA process for Swainson's Hawk mitigation needs to be completed. All of the CEQA documents that required Swainson's Hawk mitigation need to be identified and cataloged. Then the mitigation needs to be tracked to determine what option was used. Mitigation needs to be checked to determine whether it was completed. Contacting CDFG, mitigation banks and conducting title searches to see if easements were recorded might be the only way to determine whether mitigation was implemented as required in the CEQA document. All of the CEQA documents for South Sacramento County need to be reviewed to determine how mitigation was implemented for projects that did not pay into the Swainson's Hawk Mitigation Fund.

### **Summary of Elk Grove Results**

Elk Grove has two options for providing habitat compensation for Swainson's Hawk foraging habitat. For projects less than 40 acres the developer can write a check to Elk Grove and the City becomes responsible for providing the habitat compensation. For projects more than 40 acres the developer has to provide the compensation by either using a mitigation bank, or providing acreage in fee title or with a conservation easement. Elk Grove took over their Swainson's Hawk habitat compensation program from Sacramento County when they incorporated – see Table 4. Between 2000 and 2005 no habitat compensation or easements were purchased even though 2344 acres were developed. In 2005 the Carli easement was purchased with almost everything available in the fund. In 2005 Elk Grove's program improved and they created Swainson's Hawk habitat with the establishment of Delta Breeze. They changed from a fee program to a land based mitigation program that has allowed Elk Grove to stay ahead of development with their mitigation program.

### **City of Elk Grove Swainson's Hawk Mitigation Program**

Elk Grove keeps records of all the projects that have had to provide Swainson's Hawk mitigation. They keep track of all projects that have paid into the Swainson's Hawk Fund, have mitigated at Delta Breeze, and Bryte Ranch mitigation bank or provided easements to the City for habitat compensation. In the past the money was used to purchase easements. But now the money is used primarily for reimbursement and management of the Delta Breeze vineyards project – See Table 4.

FOSH has tracked the Elk Grove program for years. In 2004 it wrote several letters to the City and to the Local Agency Formation Commission (LAFCO) expressing concern that Elk Grove was out of compliance with CEQA. FOSH pointed out to Elk Grove that CEQA findings that impacts would be mitigated to less than significant by payment of a mitigation fee did not comply with CEQA. This was because the fee was too small to provide reasonable assurance that the desired mitigation measures (1 to 1 mitigation ratio) would be carried out. FOSH raised the concern in connection with Elk Grove's Laguna Ridge project. That project resulted in the current Elk Grove mitigation program. The current program requires that projects greater than 40 acres provide land plus the appropriate O&M fee before a grading permit is issued.

When Elk Grove changed from a fee program to reimbursement for Delta Breeze in 2005 there was some money left in the Swainson's Hawk account that was not enough to purchase additional easements. The City was not planning to collect more money for easements so they used the money for several Swainson's Hawk surveys.

Elk Grove has kept track of all the projects that provided their own land for compensation or used mitigation banks. Carli is the only easement purchased by Elk Grove. All of the other easements have been transferred from developers to Elk Grove to mitigate for impacts to Swainson's Hawks. Elk Grove holds all of the conservation easements on the parcels; not a third party conservation organization. Elk Grove completed monitoring and compliance reports on all of the easement parcels in 2010 and is



working on a webpage where all of the easement information will be accessible by the public. Elk Grove also tracks all of the projects that have bought credits at Bryte Ranch mitigation bank.

**Table 4:** Summary of Elk Grove’s Swainson’s Hawk Mitigation Program

Category	City of Elk Grove
Year the City initiated mitigation program	2000
Year policy was developed and amended	2000
Number of development projects that have paid fees to Elk Grove	102
Number of development acres including those that compensated at Delta Breeze	4190.43
Number of development acres excluding Delta Breeze	3173.42
Number of conservation easement parcels	8
Conservation easement parcel names and acreage	Kirkham 169.0 Goodwin 80.0 Carli 84.93 Reynen and Bardis 56.34 Treasure Homes 91.8 Delta Breeze 1104.65 Mohamed 80.0 (Mahon 62.35)*
Acres under conservation easement	562.07
Acres used in Delta Breeze	763.0**
Total acres set aside	1729.07
Number of fee-title parcels	1 (Delta Breeze)
Acres of fee- title land owned	736
Number of mitigation banks used	1
Acres purchased at mitigation banks***	178.92
Average per acre amount charged and range	\$3996.00 (\$750-\$18,375)
Fees collected for land/easements purchase	\$14,563,705.03
O&M fees collected	\$ 1,781,332.75
Total fees collected****	\$16,747,370.33

\*Mahon easement is not included in the total since it has not been used for mitigation yet

\*\*Delta Breeze was purchased in advance of development and is operated as a mitigation bank. The only acres included are the ones already accounted for by development

\*\*\*The only mitigation bank used is Bryte Ranch.

\*\*\*\*Total is a combination of administrative fees, fees for acreage and O&M

### Delta Breeze

Elk Grove purchased a vineyard in 2005 and removed all of the vines with the intent of creating Swainson’s Hawk habitat; not just preserving it. Because of the creation component, CDFG in May 2005 approved a 1.5:1 ratio of development to habitat compensation for the projects mitigating at the site. Elk Grove can sell 1104.65 credits although the parcel is only 736 acres. TNC holds the easement on Delta Breeze and is responsible for compliance and enforcement of the easement terms. According to a

CDFG letter in the FOSH file, TNC intended to manage the parcel too, but now they are just holding the easement. The vines have all been removed but the parcel is fallow. Elk Grove has had delays in converting it from a fallow parcel to one that is actively managed as foraging habitat. Elk Grove has recently partnered with the Bureau of Land Management for management of the property. A request for proposals was open in the summer of 2010.

Since Delta Breeze became available for mitigation 30 projects have used it. See Table 5 for a summary. Most of the projects using the site have been small. They have paid their mitigation credits prior to development occurring. Delta Breeze is the reason why Elk Grove’s mitigation program successfully sets aside habitat in a large block of land which is more useful as foraging habitat than small parcels.

Delta Breeze is owned in fee-title by the City of Elk Grove which is a different approach than the other parcels. The other parcels all have conservation easements on them which are held by the City of Elk Grove. The easements allow parcels to be conserved, but managed by landowners at their discretion as long as the easement terms are not violated. Delta Breeze can be managed solely as Swainson’s Hawk habitat since the money collected in mitigation fees will pay off the parcel and create the endowment. There is no reason to take into account the market value of crops as part of the management strategy so the best management plan for Swainson’s Hawks can be implemented.

**Table 5:** Summary of Delta Breeze

Category	Result
Number of projects	30
Number of projects that were city projects	8
Number of projects over 40 acres	2
Money collected in fees	\$13,101,202.20
Fees collected per acre	\$18,325.00
Acres mitigated	763.0

### Swainson’s Hawk Habitat Compensation Deficit

The City of Elk Grove had early habitat compensation deficits too. There are 4190.43 acres that have been developed, but easements have only been provided on 562.07 acres plus the 763 acres accounted for in Delta Breeze. The City of Elk Grove has recently started keeping track of operations and management money separately, but did not collect money for that early on. The range of fees that the City of Elk Grove has collected is from \$750/acre to the current \$18,325/acre for mitigating at Delta Breeze. As late as 2003 the City was still only collecting \$750 which is one of the reasons why they have operated at such a large deficit. A summary by year of the acreage developed and conserved can be found in Table 6. From 2000 – 2005 the deficit became larger and larger and the City did not take action to provide habitat compensation. After 2005 more acres have been preserved than developed, but it still does not make up the deficit.

The City of Elk Grove has found a way with Delta Breeze to come into compliance with their ordinance and CEQA. Purchasing land up front and then selling credits ensures that:

- Adequate habitat compensation occurs.
- Mitigation acres stays ahead of development acres
- Mitigation can occur at the ratio required in the ordinance and CEQA documents

Owning the land in fee-title and managing it for Swainson’s Hawk habitat ensures that it will be managed for the greatest benefit to the species and not what the market or the needs of the land owner dictate.

**Table 6:** Summary of Swainson’s Hawk Foraging Land Developed and Preserved by Year in Elk Grove

<b>Year</b>	<b>Acres Developed</b>	<b>Acres Preserved</b>	<b>Cumulative Deficit</b>
2000	10.62	0	-10.62
2001	479.19	0	-489.81
2002	774.63	0	-1,264.44
2003	914.67	0	-2,179.11
2004	165.68	0	-2,344.79
2005	1196.64	850.57	-2,690.86
2006	51.83	93.43	-2,649.26
2007	29.65	136.19	-2,542.72
2008	19.96	99.96	-2,462.72
2009	16.94	81.99	-2,397.67
2010	n/a	n/a	
Multiple*	482.56		-2,880.23
City Projects**	48.06	48.06	-2,880.23
<b>Total</b>	<b>4190.43</b>	<b>1310.2</b>	<b>-2880.23</b>

\*Several projects are listed as multiple years with no date listed. It is assumed they were all permitted prior to 2003 since the fees collected are at the \$750 rate

\*\*No date is listed for city projects, but all are listed as mitigating at Delta Breeze

Prior to Delta Breeze the City of Elk Grove collected money and began to record conservation easements (only Carli was purchased and recorded). When the City switched over to using Delta Breeze there was money left in the fund for habitat compensation. The City did not believe there was enough money to purchase another easement, and so they used the funds to conduct a Swainson’s Hawk nesting survey within City boundaries and in the South Sacramento County region.

## Role of CDFG

CDFG is a trustee agency under CEQA that is responsible for conservation of the state’s resources, including Swainson’s Hawks which are listed as Threatened under the California Endangered Species Act. CDFG has worked with Elk Grove (Figure 1) and Sacramento County (Figure 2) to identify areas where mitigation is preapproved. Not every parcel within the preapproved areas is good Swainson’s Hawk mitigation but it allows developers and local governments a starting point of where to look.

CDFG also approves mitigation banks; the species that can be off-set, the amount of credits that can be sold, and the service area. CDFG also keeps track of how many credits are sold and whether banks are operating according to their management plans. Unfortunately, the mitigation bank service areas are not always consistent with the other parts of the program. The only mitigation bank that includes Elk Grove and Sacramento County in its service area at this time is Bryte Ranch. Bryte Ranch is outside the preapproved areas found in Figures 1 and 2. Other mitigation banks do not have blanket approval, but mitigation has been approved there by CDFG on a case by case basis. More data needs to be collected and analyzed to develop a complete picture of the role of mitigation banks, their locations and habitat types compared to the location and habitat type of development.

CDFG can also hold endowment money and easements, or be a beneficiary to an easement. Because of the programmatic level of oversight CDFG does not track each individual transaction by a local government. It is the responsibility of the permitting agency to ensure that mitigation measures are fulfilled. CDFG's responsibility is to make sure the mitigation bank program and the conservation easements are operating as they are required to.

## Mitigation Banking

Mitigation banking is a popular option due to the ease by developers of fulfilling their mitigation obligations. Developers can write a check to the bank operator and have their mitigation obligations completed. There are pros and cons to mitigation banks. If they are used right they can increase the value of land set aside. If they are not used correctly then the mitigation value can drop. Some of the ways that mitigation banks can benefit species are:

- Having the ability to conserve larger tracts of land than would otherwise be conserved with small projects that only need a couple of acres
- They require a resources agency approved management plan. The management plan requires the parcel to be managed for the species and habitats being covered
- When used for in-kind habitat the value of habitat at a bank can be equal or greater value than land being lost. For example, projects that impact vernal pool/grassland complexes can mitigate at banks that provide that habitat type.

Some of the concerns with using mitigation banks for projects in Sacramento County and Elk Grove include:

- When large projects use mitigation banks for their habitat compensation instead of providing separate parcels
- Mitigation banks that provide credits for both federal and state listed species are tracked separately (by the separate agencies) and layering or an incomplete accounting of credits can occur
- In some cases credits are sold in areas where it would be unlikely for development to occur. For example, credits for uplands at a vernal pool sites which have already been protected
- When they are located outside of the region/habitat type that the impact is occurring
- No Swainson's Hawk mitigation banks are in the zones preapproved by CDFG (Figures 1 and 2).
- Elk Grove and CDFG have kept track of credits sold at Bryte Ranch. Elk Grove reported to the project that 178.92 have been purchased there and CDFG reported to FOSH that for Elk Grove projects 180.69 acres have been purchased.

The only bank that has Elk Grove and South Sacramento County in its service area is Bryte Ranch. Van Vleck Ranch is located in Sacramento County. Several others have received approval for Swainson's Hawk mitigation or may have approval on a case by case basis - see Table 7. Elk Grove does give approval to use mitigation banks and has identified 12 projects that have mitigated at Bryte Ranch. The Elk Grove school district has mitigated at Van Vleck Ranch for a project. Elk Grove could deny the use of Bryte Ranch because it is outside the service area in Figure 1. It does not provide in-kind habitat compensation for impacts in agricultural areas. Elk Grove and CDFG should work on way to resolve the discrepancy between service areas.

Additional analysis on the use of mitigation banks should be done in a future phase of this project. Because Sacramento County DERA does not keep a database of projects and how they mitigated we have incomplete information on how many projects may have used banks. If a project in Sacramento



County wants to mitigate at a bank they would need CDFG approval. The County Ordinance does not give blanket approval for using mitigation banks.

**Table 7:** CDFG Approved Swainson’s Hawk Mitigation Banks that can potentially be used in Sacramento County

<b>Name of Mitigation Bank</b>	<b>Owner/Contact</b>	<b>Total Acres</b>
Laguna Terrace	Wildlands	200
Bryte Ranch	Brian Johnson	431
Van Vleck Ranch	Westervelt	
Deer Creek Swainson’s Hawk Preserve	Wildlands	183
Twin Cities Mitigation Wetland Preserve	Wildlands	255
Laguna Creek	Conservation Resources	1000

### Site Visits to Conservation Easement Parcels

Most of the parcels that have been conserved through the Sacramento County or Elk Grove program were visited in late June or early July 2010 to conduct a drive by assessment. Using google earth the parcel was identified. We also had the conservation easement to verify whether the parcels appeared to be in compliance with the easement crop restrictions. The site visit methodology was neither comprehensive enough to determine whether Swainson’s Hawk were nesting on the site or in the vicinity nor was it comprehensive enough to determine whether parcels are being used for foraging habitat. The site visit was to determine potential suitability as foraging habitat. Incidental sightings of Swainson’s Hawks were noted. A summary of the site visits are in Table 8. Not all parcels were visited since not all of them have a public road adjacent to the site.

### Easements

The parcels seem to be in compliance with the easement language. The easement language is not necessarily restrictive enough to guarantee that the best crops for Swainson’s Hawks are planted every year. Even accounting for crop rotation, the crops best suited for Swainson’s Hawks are either alfalfa or other irrigated pasture which is mowed or managed. Other crops can be planted but crops such as corn and rice should be excluded. The easements do exclude orchard and vineyard but the excluded list should be more comprehensive since the habitat needs to be as high value as possible. There have been several foraging studies conducted in Sacramento, San Joaquin and Yolo Counties which all conclude that Swainson’s Hawks use alfalfa the most frequently and then other crops such as irrigated pasture and some row crops.

The Allen parcel, which is the first easement recorded allows rice. Some of the easement prohibit certain crops and others do not. Some of the easements are restrictive on such things as water right transfers, mineral extraction, noise, and other uses, but there is leeway. Just because the parcels are in compliance with the easements, does not mean that they are being managed for Swainson’s Hawks to the best extent possible.

**Table 8:** Summary of site visit information

Conservation Parcel	Parcel for Elk Grove/ Sacramento County	Date of Site Visit	Crops/Habitat Type	Other Observations
Allen	Sacramento County	6/26/2010	Fallow, corn	Alfalfa on adjacent parcel
Bryte Ranch	Mitigation Bank	5/23/2010	None	Vernal pool complex with associated upland grassland
Carli	Elk Grove	7/5/2010	Alfalfa	
Delta Breeze	Elk Grove	6/30/2010	Fallow, weeds	unmanaged
Goodwin	Elk Grove	6/26/2010	Dry pasture	
Kirkham	Elk Grove	6/30/2010	Wet pasture	Adjacent to Cosumnes Preserve
Larkin	Sacramento County	No public access		
Mahon	Elk Grove	7/5/2010	Alfalfa	
McKenzie	Sacramento County	7/5/2010	Pasture wet/dry	Actively being grazed
Mohamed	Elk Grove	7/5/2010	Cut hay	
Reynan and Bardis	Elk Grove	No access		
Stokes	Elk Grove	7/5/2010	Alfalfa	
Treasure Homes	Elk Grove	No access		
Van Steyn	Elk Grove	6/26/2010	Irrigated pasture/corn	

## Sacramento County Findings

The review of the Sacramento County program has identified several positives and negatives about the program. Some of the things that are going well in the program include:

- All easements purchased with the Swainson’s Hawk Fund money are recorded
- Easement language seems to be improving with each recording
- The third party land management organizations seem organized, are conducting compliance visits with dedicated staff, and have been transparent in sharing their procedures
- The program was changed from a nominal fee based program to one that includes O&M and realistic fees which allows more habitat to be preserved with easements
- Projects with impacts larger than 40 acres are required to provide their own habitat compensation

The following are some suggestions to improve Sacramento County’s Swainson’s Hawk mitigation program:

- The Swainson’s Hawk Fund should determine what the actual deficit is (if less than 1000 acres) and look for a way to reconcile their historical deficit
- Better oversight, tracking, coordination and transparency need to be implemented in the non-fund transactions
- Habitat compensation in the County needs to have centralized oversight to ensure preserve design is the best for Swainson’s Hawks and to ensure one entity is tracking all jurisdictions and facets of the program

- Mitigation banks not on the valley floor (outside the area in Figure 2) should not be approved by local agencies or CDFG for habitat compensation
- Sacramento County should be requesting an annual report from the third party conservation organizations to ensure that easements are in compliance and so the County can track mitigation parcels. It doesn't appear that the County has tracked the status of the parcels
- McKenzie is outside the target area preapproved by CDFG. It may have been in-kind for the original project, but the extra credits should not have been sold to other projects if impacts were in a different habitat type
- A stay-ahead clause should be required so that land is always available at the current rate. The mitigation program should be a land based program, not a fee based program
- Mitigation areas should be areas that would otherwise be developed. In other words, areas that cannot be developed such as within the flood plain should be excluded unless habitat improvement of the property occurs.

### Non-Fund Transactions

Better oversight, tracking, coordination and transparency need to be implemented in the non-fund transactions. Sacramento County has kept track of fund transactions in an organized way but the non-fund transactions are not tracked in a central location. Getting information on the projects that have provided their own mitigation, their location, and whether the mitigation obligation has been met has been a challenge. The County has not been able to provide information on whether conservation easements have been recorded for projects not using the mitigation fund. Conservation parcels through this part of the program could be small, could have easement language that does not benefit the species to the greatest extent possible, and their locations could be piecemealed throughout the County. Both the Department of Environmental Review and Assessment (DERA) and the Planning Department have different roles and they need better coordination with each other as well as the other Cities in the County. Working together would result in fewer impacts to the species and would help provide the best mitigation possible.

### Elk Grove Findings

The review of the Elk Grove program has identified several positives and negatives about the program. Some of the things that are going well in the program include:

- Taking out vineyards and restoring habitat for Swainson's Hawk at the Delta Breeze site is one of the only ways that the species will gain any foraging habitat
- The Elk Grove program has been able to operate with no deficit since the purchase of Delta Breeze since land can be accounted for and set aside prior to the grading permit being issued
- Elk Grove conducted compliance monitoring on the conservation easement parcels in 2010 and the reports were available for review
- All easements purchased were recorded
- Has kept records of all aspects of the mitigation; mitigation bank credits purchased, developer provided conservation easements, money and land as part of the Swainson's Hawk fund and acres sold at Delta Breeze.

The following are some suggestions to improve Elk Grove's Swainson's Hawk mitigation program:

- The City should plan ahead and before the next housing boom set aside large areas that can sell credits

- Parcels that are being considered for easements should be larger than in the existing program prior to Delta Breeze
- Mitigation banks not on the valley floor (outside target area) should not get approval from Elk Grove to mitigate impacts
- Conservation organizations should hold the conservation easements, not the City itself so an independent entity can do the compliance and monitoring
- Prior to the next housing boom Delta Breeze should be closed to big projects
- Elk Grove can learn from Delta Breeze and do the next project even better
- The historical deficit should be addressed and reconciled

Although the City of Elk Grove has not operated in a deficit on an annual basis since 2005 there is still a large deficit that has not been addressed by the City. Add the approximately 2800 acre deficit to the 1000 acre County deficit and it is apparent that mitigation programs have not been fully implemented.

### **Easement or Fee-Title?**

Easement language should be more restrictive, or land needs to be purchased in fee-title so the parcels can be managed as the best Swainson’s Hawk foraging habitat possible. Easements are a cheaper option for developers and local governments. It does allow landowners who want to conserve their property but still have ownership and management that option. If conservation easements are still going to be used they need to be restrictive enough to benefit Swainson’s Hawks every year.

Fee title has benefits as the land can be managed solely for Swainson’s Hawks. Owning property as mitigation removes any conflict that can occur from land owners needing to plant crops they can sell. Fee title can also be complicated as local governments are not necessarily the best group to develop a parcel into Swainson’s Hawk foraging habitat. Properties can be held in fee-title by conservation organizations too.

Instead of promoting easements or fee title we found, based on the review, that several things can make either program successful:

- Either program should have a stay ahead requirement to ensure no additional deficit occurs
- Fees should reflect the market value of the program chosen to ensure that enough money is collected to purchase adequate acreage, for operations and management, and cover administrative needs
- Criteria for potential mitigation parcels should accompany the maps already developed
- Management Plans should be developed that establish criteria to manage the parcel for Swainson’s Hawk foraging habitat – and follow-up should occur to confirm management plans are being implemented
- A third party conservancy, set up to run the mitigation program, could be the clearing house for all projects in the County. This would help all the local governments keep track and reduce the likelihood of double counting

### **Biological Significance**

Swainson’s Hawks are continually losing their foraging habitat in South Sacramento County. The early habitat compensation programs that just took fees for development and did not provide habitat compensation not only were out of compliance with CEQA and the ordinances they contributed to the decline of regional habitat values for the Swainson’s Hawk. The current programs collect more money for compensation and money for operations and management but the deficits remain and for the



County program can still get bigger. If Elk Grove changes the development parcel size that can mitigate using Delta Breeze and they go back to a fee program they too could increase their deficit.

One of the reasons why projects such as Delta Breeze become important is its size. Biologically it is important to have parcels large enough to provide quality habitat. Smaller parcels have a larger edge habitat to interior ratio. Depending on where the parcels are and the matrix of conserved lands and the crops being grown small parcels do not provide the foraging opportunities that large uninterrupted parcels do. Some of the parcels that have easements on them are small. Preserve design, size and location are important attributes in a conservation program when the available land cover is shrinking by 50% every time land is set aside.

To limit any potential impacts to the population size in South Sacramento County a regional approach should be taken to habitat compensation. Management of mitigation parcels should be conducted to benefit the Swainson's Hawk with alfalfa being the primary crop grown and other crops used as forage identified as part of the crop rotation.

### **Centralized Oversight**

Habitat compensation in the County needs to have centralized oversight to ensure preserve design is the best for Swainson's Hawks and to ensure one entity is tracking all jurisdictions and facets of the program. The County has not kept adequate track of what projects outside of the mitigation fund have needed Swainson's Hawk mitigation. The County is using a form on their website for parcels outside the mitigation fund to ensure that the appropriate habitat is used as mitigation and that easements or title restrictions don't already occur.

The Swainson's Hawk program for the County and all the jurisdictions could be more streamlined and have a better biological result for the species if there was a coordinated program. An HCP could help alleviate some of the disjointedness of the programs. Having one entity:

- Oversee implementation of the program,
- Keep track of where habitat compensation has been provided,
- Have a conservancy who is responsible for managing the parcels specifically for the covered species, and
- Make sure easements are recorded, and holds all the easements

### **Additional items that could be researched**

The scope of this project was large, but based on the information that we could gather some aspects of the mitigation programs were not analyzed. Other phases of the project are not limited to this list, but below are several areas that further analysis could be conducted to benefit the programs.

- Follow up with a review of mitigation banks to determine their role in Swainson's Hawk mitigation in Sacramento County and Elk Grove
- Review CEQA documents for projects in Sacramento County prior to 2005 to determine mitigation ratios, what the true deficit is and whether habitat compensation was provided
- Develop a spatial analysis of where development has occurred and where mitigation has occurred in relation to what is known about nesting sites
- Follow up on the Sacramento County turn-key project; George Dairy Project
- Conduct a similar analysis of other jurisdictions within Sacramento County that have been mitigating for Swainson's Hawk