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## IMPLEMENTATION ANNUAL REPORT

- CALENDAR YEAR 2002  
MARCH 1, 2003

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## INTRODUCTION

This report responds to a requirement of the Natomas Basin Habitat Conservation Plan (Section IV.G.4) and the Implementation Agreement (Section 5.2) which calls for an implementation annual report. The report is due within 60 days after the close of each calendar year.

This is the fourth full-year annual report prepared by the Conservancy. As additional accomplishments of the Conservancy accumulate and responsibilities expand with the growth of mitigation acreage, more information will be available in future annual reports.

The goal of the presentation style of this report is to follow the reporting requirements of the Natomas Basin Habitat Conservation Plan and Implementation Agreement. Since reporting compliance is a key element in the operations of the Conservancy, this format should be helpful to the reader in assuring all reporting requirements are fulfilled.

The Conservancy is pleased to present this report and to share the many positive steps it has taken towards successful implementation of the Natomas Basin Habitat Conservation Plan.

Those wanting further information may contact the Conservancy at:

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## SPECIAL NOTE

This version of the 2002 Implementation Annual Report contains only the main body of the report itself, and appendices are not provided. Copies of the appendices (see “Table of Appendices” in this report) are available from the Conservancy for public viewing should they be needed. Also, although this version is nearly identical to the official “record” version, there are slight variances (see especially I.6.b, “Suitable agricultural practices” notes regarding Swainson’s hawk). It is intended to provide a more readable and cost-effective presentation of the 2002 Implementation Annual Report. Those wishing copies of the appendices and official record version may obtain them for normal copying charges.



**Swainson's hawk**  
(*Buteo swainsoni*)

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**Giant garter snake**  
(*Thamnophis gigas*)

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2002 HIGHLIGHTS  
THE NATOMAS BASIN CONSERVANCY

ACQUISITION

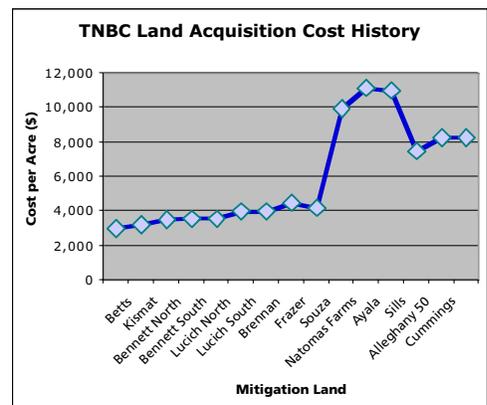
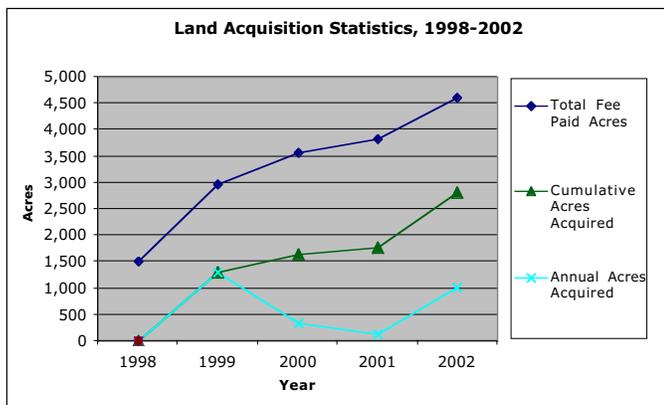
- The Conservancy acquired four (4) farms totaling 1,010.014 acres in 2002. This brings the total number of farms acquired to date to fifteen (15).
- The total acres of land acquired has grown to 2,802.6511.
- Phase One environmental reports, American Land Title Association (ALTA) land surveys and aerial photographs were completed on each of the Conservancy's land acquisitions.

PROGRAMMATIC

- The Conservancy continues preparing required site-specific management plans as additional acreage is acquired.
- A Swainson's hawk monitoring report and giant garter snake monitoring report were conducted.
- The Conservancy issued a timely implementation annual report, budget, financial audit and all other required reporting documents during the year.
- Staff worked with the City of Sacramento and Sutter County on operational aspects of a draft revised NBHCP and the Metro Air Park Property Owners' Association to facilitate its need for a Plan Operator.
- Restoration and enhancement construction projects were officially completed on the Betts, Kismat and Silva tracts. Similar projects were nearly completed on the Lucich South, Bennett North and Bennett South tracts.

BUDGET AND FINANCE

- The long-term finance model was updated and a fee increase was requested, granted and implemented.
- The Conservancy's endowment fund account continues to grow, and remains conservatively invested in order to insure its long-term viability.



# THE NATOMAS BASIN CONSERVANCY

## ANNUAL REPORT 2002<sup>1</sup>

### I. IMPLEMENTATION AGREEMENT SECTION 5.2

#### 1. The number of acres of land within the Permit Area approved for Urban Development during the previous calendar year for which fees were collected.

During 2002, the number of acres of land within the permit area for which fees have been paid was 777.81. A full report on the number of acres permitted for urban development can be found in Appendix A. A report from the City of Sacramento's Accounting Department shows a schedule of acres for the covered period for which fees have been paid. The mitigation acreage is also mapped, and these maps can also be found in Appendix B.

TABLE I  
THE NATOMAS BASIN CONSERVANCY  
HCP FEE-PAID ACRES

PERIOD	HCP FEE PAID ACRES*
Through December 31, 1998	1,515.66
January 1-December 31, 1999	1,465.47
January 1-December 31, 2000	598.07
January 1-December 31, 2001	242.09
January 1-December 31, 2002	777.81
<b>All years through December 31, 2002</b>	<b>4,599.11</b>

*\*Some acres were donated in lieu of paying the Acquisition Fund portion of the NBHCP fee.*

#### 2. An estimate of the amount of land within the Permit Area actually grubbed or graded for Urban Development during the previous calendar year.

This City of Sacramento-provided information can be found along with the maps and related material in Appendix A.

#### 3. The aggregate number of acres of Conservancy Land acquired in fee simple or encumbered with Conservation Easements by the Conservancy during the previous calendar year. The listing shall show the acreage and the proportion of lands which are Managed Marsh.

An accounting of the number of acres of Conservancy Land acquired in fee simple follows in Table 2. The listing showing land converted to Managed Marsh can be found in Table 3. The number of acres in managed marsh, uplands and rice approximately match the 25/25/50 acres allocation prescribed in the NBHCP.

<sup>1</sup> Highlighted text (**bold** or *italics*) follows the Natomas Basin Habitat Conservation Plan (NBHCP) and Implementation Agreement (IA) reporting requirements or guidelines. One exception is that illustrations may have headers and titles in bold which are not designated in the NBHCP or IA.

All Conservancy land acquired to date has been by fee simple acquisition, although at year's end, a conservation easement for a small amount of land owned by Reclamation District 1000 was in the process of being completed. This conservation easement was necessitated by restoration and enhancement construction on adjacent land. At the end of 2002, the Conservancy had nearly completed its second year of managed marsh construction and was well on the way to conducting additional such conversions during 2003.

**TABLE 2**  
**THE NATOMAS BASIN CONSERVANCY**  
**LAND ACQUISITION TALLY THROUGH 12.31.02**

PROPERTY	DATE ACQUIRED	ACRES
Silva	1.7.99	159.200
Betts	4.5.99	138.992
Kismat	4.16.99	40.293
Bennett (C.L.)	5.17.99	226.675
Bennett (H&B)	5.17.99	132.486
Lucich North*	5.18.99	267.986
Lucich South	5.18.99	351.889
Brennan	6.15.00	241.376
Frazer	7.31.00	92.600
Souza**	7.2.01	44.680
Natomas Farms	7.9.01	96.460
Ayala	2.20.02	317.3674
Sills	7.15.02	575.5559
Alleghany 50	11.7.02	50.2601
Cummings	11.7.02	66.8307
<b>Total</b>		<b>2,802.6511</b>

\* *Lucich North may be reduced 20.68 acres pending negotiations between the seller (Lucich) and SAFCA. The Lucich tracts are also sometimes referred to as the South Sutter Venture Group tracts.*

\*\* *Agreement of Purchase and Sale includes an option whereby 3.68 acres can be purchased back from the Conservancy.*

The Conservancy adopted additions to its site-specific management plan (see Appendix I) during 2002 as additional mitigation lands were acquired. On April 3, 2002 the Board adopted resolution #04.02.02 for summer 2002 restoration and enhancement construction in the amount of \$235,354.00, largely for managed marsh construction. This covered the Bennett South, Bennett North and Lucich South reserves. On May 1, 2002, the Board adopted resolution #05.02.09 authorizing \$21,515.00 for a construction management contract for these restoration and enhancement construction projects.

For the future, the Conservancy's Board adopted resolution #06.02.02 on June 5, 2002 in the amount of \$5,600.00 to supplement the prior contract for the preparation of construction drawings and bid package preparation for the summer 2003 restoration and enhancement construction projects. The Lucich North tract and Frazer tract will both be dominated by managed marsh complex once construction is completed.

**TABLE 3**  
**THE NATOMAS BASIN CONSERVANCY**  
**MANAGED MARSH/RICE/UPLAND TALLY**

Tracts	surveyed acres	managed marsh <sup>1</sup> planned <sup>2</sup>	managed marsh <sup>1</sup> completed	rice	upland	total of 3 planned uses
<b>2001 Construction</b>						
Betts/Kismat/Silva	338.49	192.51	192.51	0.00	145.98	338.49
Brennan <sup>3</sup>	241.38	3.86	3.86	0.00	237.52	241.38
<b>2002 Construction<sup>4</sup></b>						
Lucich South <sup>5</sup>	351.89	16.45	16.45	334.00	1.44	351.89
Bennett North <sup>6</sup>	226.68	9.24	9.24	216.93	0.51	226.68
Bennett South	132.49	22.74	22.74	80.70	29.05	132.49
<b>2003 Construction</b>						
Lucich North <sup>7</sup>	267.99	247.31	0.00	0.00	20.68	267.99
Frazer	92.60	92.60	0.00	0.00	0.00	92.60
Natomas Farms	96.46	36.20	0.00	0.00	60.26	96.46
Souza	44.68	0.00	0.00	0.00	44.68	44.68
<b>Not yet scheduled</b>						
Alleghany 50	50.26	0.00	0.00	0.00	50.26	50.26
Cummings	66.83	25.00	0.00	0.00	41.83	66.83
Ayala <sup>8,9</sup>	317.37	20.00	0.00	282.30	15.07	317.37
Sills <sup>8</sup>	575.56	50.00	0.00	490.00	35.56	575.56
<b>Total</b>	<b>2,802.65</b>	<b>715.91</b>	<b>244.80</b>	<b>1,403.93</b>	<b>682.82</b>	<b>2,802.65</b>
		<b>25.54%</b>	<b>8.73%</b>	<b>50.09%</b>	<b>24.36%</b>	<b>100.00%</b>

<sup>1</sup> Managed marsh includes "associated uplands" as provided for in NBHCP.

<sup>2</sup> Represents managed marsh in approved SSMPs except "Not yet scheduled" section which are projections.

<sup>3</sup> Some restoration and enhancement work remains, but project is largely complete.

<sup>4</sup> 2002 projects were approximately 95 percent completed at December 31, 2002; awaited dry weather for completion.

<sup>5</sup> Lucich South managed marsh acreage does not include planned 4.6352-acre conservation easement.

<sup>6</sup> Bennett North managed marsh acreage does not include planned 1.1227-acre conservation easement.

<sup>7</sup> Lucich North surveyed acres @ 267.986 less 20.68 probably conveyed to SAFCA; would reduce total to 247.3060.

<sup>8</sup> Expect these rice fields will include significant fallowing which will afford certain upland benefits.

<sup>9</sup> At conclusion of 2002, this tract was entirely surplus mitigation.

Additionally, on August 7, 2002, the Board adopted resolution #08.02.05 for the preparation of a site specific management plan (SSMP) for the Alleghany 50, Ayala and Sills tracts. On November 6, 2002 (resolution #11.02.02) the Board approved a SSMP for Souza and Natomas Farms, setting the way for managed marsh construction in 2003. On November 6, 2002, in resolution #11.02.08, the Conservancy's Board of Directors approved a contract that would prepare a SSMP on the Cummings tract, and on December 4, 2002, (resolution #12.02.02), authorized a contract to prepare construction drawings and bid package for the Natomas Farms and Souza tract managed marsh complex and restoration and enhancement construction in general.

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**4. A description of any lands conveyed by the Conservancy to the USFWS, CDFG, any other governmental entity, and to any other person or entity during the previous year.**

The Conservancy has not conveyed any land to the USFWS, CDFG or any other governmental entity.

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**5. A summary of the total aggregate number of acres of Conservancy Lands owned in fee simple or encumbered with Conservation Easements in favor of the Conservancy as of the end of the previous calendar year. The summary listing shall show the acreage and the proportion of lands which are Managed Marsh.**



See discussion in number three (3) above, especially Table 3.

**Figure 1. Summer 2002 Restoration and Enhancement construction.** The Conservancy began its second summer of restoration and enhancement construction on three reserves. The photo at left shows managed marsh construction on the Conservancy's Lucich South tract in South Sutter County during 2002. Photo: The Natomas Basin Conservancy.

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**6. A description of the management activities which the Conservancy conducted during the previous year and the management activities proposed for the coming year.**

Following the outline in the NBHCP page IV-40 ("Habitat management activities"), the following list is presented:

*a. Control of water supply and availability.*

The Conservancy's management is well aware that without adequate water supply, the 25 percent managed marsh requirement in the NBHCP would be jeopardized. Moreover, the ability to provide for rice operations would also be at risk, and income from rice operations provides a large share of the revenue necessary for various activities, including maintaining the managed marsh component. Accordingly, great care has been taken by the Conservancy with respect to acquiring and assuring full rights to water supplies as it acquires property for mitigation.

While the Betts-Kismat-Silva tract restoration and enhancement construction is complete, the Conservancy placed considerable efforts in 2002 at improving water supply backup alternatives on the site. The site's primary water supply is high-quality tailwater from a neighboring sturgeon farm. While the Conservancy sees no reason to believe this supply will end, contingencies were built into the restoration and enhancement construction project for the site in the unlikely event anything happened to this water supply. In 2002, following restoration and enhancement construction, work was begun to substantially improve the existing groundwater well on the Betts tract. When completed in 2003, the managed marsh complex on all three properties (Betts, Kismat and Silva) will be further supported with water supply back-up alternatives. Additionally, the ability to continue to effectively irrigate the uplands pasture on the Betts tract will be greatly improved.

Regarding other mitigation land, management has worked to transfer stock in the Natomas Central Mutual Water Company to the Conservancy with all mitigation land acquisitions within the Water Company territory. The Water Company Board of Directors has approved the Conservancy's requests for the transfer of ownership, and stock certificates have been received.

The Conservancy staff attends the Water Company's annual meetings and casts shareholder votes in the Conservancy's interest. The Conservancy owns 2,209 shares of stock in the Water Company. This number represents approximately the number of acres of land owned by the Conservancy in the Water Company's service territory. The Conservancy also continues to explore with Water Company officials opportunities that exist for water provision to those tracts the Conservancy owns which do not hold water rights.<sup>2</sup>

*b. Suitable agricultural practices (e.g., rice growing for giant garter snakes and production of other crops for Swainson's hawk foraging).*

On all its mitigation land acquisitions, Conservancy management has adjusted agricultural practices to be in line with the NBHCP. This is especially true with respect to maintaining healthy and productive rice farming operations. Conservancy staff regularly talk with rice farmers about farming in ways that are supportive of giant garter snake and Swainson's hawk populations. Much of the specific effort is outlined in the site-specific management plan applicable for the subject site.

More generally, the Conservancy acknowledges the 1997 NBHCP's discussion that rice farming has played a key role in providing refuge and habitat for some of the 26 special status species addressed in the Plan. The most significant value of rice culture to these species is to the giant garter snake (GGS). The NBHCP requires that due to the contribution rice production makes to GGS survival and recovery, approximately 50 percent of all mitigation land acquired by the Conservancy should be committed to rice production.

The Conservancy's rice farming activities add value to the already considerable values found in conventional rice agriculture. Through a number of management practices and initiatives, rice farming on Conservancy land provides enhanced value through the following:

**1. Selection of informed, first-rate rice farming contractors.** Using its discretion as a private, non-profit corporation, the Conservancy need not worry about getting the cheapest possible farming done. Rather, it can hire top-quality, conservation-minded farmers. This places a tremendous qualitative touch on the Conservancy's rice farming operations. These farmers are

<sup>2</sup> In addition to the Conservancy's Betts, Kismat, Silva tracts, the Brennan tract does not enjoy participation in the Natomas Central Mutual Water Company. Water to the tract is provided from groundwater from two wells on the property.

more likely to take extra steps to fulfill the goals of the NBHCP. They also make recommendations periodically to the Conservancy on how to best accomplish mutual goals. They work with the Conservancy to make the most of the interface between rice farming and managed marsh, as several rice farms discharge prey-rich (for GGS) rice tailwater directly onto the Conservancy's managed marsh areas. All are motivated to accomplish biological goals in support of the NBHCP, where there is little or no incentive to farm in this manner in normal, conventional rice production.

**2. Grower participation in mortality avoidance and reporting.** An unpublished study in the mid-1990s by the California Rice Industry Association determined that the largest mortality of giant garter snakes in the Sacramento Valley's rice production region was from human interaction. Most specifically, it was snake death due to being run over by motor vehicles and field hands seeing a snake and killing it with a shovel, believing it was bad. The Conservancy's farming contractors know this and work to cooperate and be sensitive to snake issues, and this is accomplished through the farmer/contractor selection process (see #1 above) as well as continuing communication and education of the farmer/contractor. Additionally, growers are requested to report to the Conservancy any GGS—dead or alive—they may find in their normal course of farming. This will help the Conservancy with its information base regarding the GGS.

**3. Lease elements and provisions; adaptability.** The Conservancy's leases with rice farming contractors is an excellent tool for achieving compliance with GGS-friendly practices. The leases now provide several provisions that make rice farming throughout the Conservancy's mitigation land holdings more sensitive to GGS safety. These include requirements regarding seeking appropriate balances with respect to rodent control, vegetation management and specific references to farm chemical safety, for example. Most importantly, as more is learned and GGS habitat defined, future leases can be adapted to accommodate new information and thus influence rice farmer activity in the most beneficial manner.

**4. Conservancy GGS monitoring and identification of sensitive locations.** Through the Conservancy's annual monitoring of GGS populations in the Natomas Basin, it now has an excellent handle on the location of these populations. Knowing this, the Conservancy has visited these sites with rice farming contractors and others related to the rice farming enterprises (e.g., Reclamation District personnel) and highlights those areas as sensitive, key localities to be careful around and to report any unusual activity to the Conservancy.

**5. Fallowing for sustainability and prey diversity.** The Conservancy has adopted as a general management practice the fallowing of certain portions of its rice fields. In California rice, back-to-back crops are often planted, and much of the industry plants rice on 100 percent of available land every year. The Conservancy has placed into its Finance Model a 10 percent fallowing factor on its rice fields. (The Conservancy is careful not to fallow in such a manner that any water conveyance structure important to the GGS or other covered species are dried up.) Not only does this fallowing regime provide opportunities to address herbicide, fungicide and insecticide resistance issues, it also is helpful in reducing the volume of pesticide applications (increasing resistance often encourages greater volume usage). Generally, fallowing helps make the 50 percent mitigation land allocated to rice more sustainable over the long term. Moreover, reduction of a monoculture effect can also be helpful in creating a diversity that is expected to benefit the GGS in terms of prey base and health. Most farming operations do not have the economic position to be able to fallow in this manner. The Conservancy does since its goal is species mitigation rather than maximizing economic return on investment.

**6. Day-to-day operations and land management refinements.** The Conservancy's staff, in its management of rice farming contractors, consults with these farmers on a regular basis. Periodically, questions surface regarding agronomic practices. Conservancy staff always recommends the most favorable biological solutions to problems, consistent with the farming contractor's ability to farm in an economic manner. Conventional operators would most likely resolve whatever issue surfaces in the most expeditious manner possible. The Conservancy's practice in this regard even extends to ancillary farming contractors. For example, the Conservancy's management meets with the aerial applicators serving the Natomas Basin and provides education as to sensitive preserves and even uses aerial photos to designate precise locations of all Conservancy preserves.

**7. Controlled access and conflicting activity separation.** One of the components of the NBHCP is to control human access onto preserves. After all, part of the theory of the NBHCP is that as habitat is lost to development, the covered species displaced by this development can take refuge on Conservancy preserves. To allow urban activity on these refuge areas would be to defeat one of the principles of the NBHCP. The Conservancy controls access to its rice fields like no other rice farm landowner in the Natomas Basin. Signage, fencing, gating, patrolling and neighbor communications are all a part of this function. This helps with the reduction of potential for GGS being driven over by vehicles and unknowledgeable people feeling compelled to kill snakes, even though they may be GGS.

**8. Integrated Pest Management.** The Conservancy recommends to its farmers and uses as a reference the University of California Regents' publication, "Integrated Pest Management for Rice, Second Edition" handbook. Integrated Pest Management (IPM) attempts to use the least amount of chemicals and disruptive practices necessary to farm economically. The IPM rice farming principles and protocols are fortified by the research and direction of some of the world's leading rice scientists, many of whom are affiliated with the University of California and the International Rice Research Institute. In sum, adhering to these practices and principles minimizes disruption, improves water quality and creates a more sustainable rice farming environment.

(See subsections "c," "f," and "g" below for additional agricultural practices which support Swainson's hawk.)

*c. Grazing programs to eliminate weeds or control vegetation.*

In order to support Swainson's hawk foraging opportunities and also to comply with the NBHCP's vegetation management guidelines, the Conservancy has in the past relied on cattle grazing and human intervention for vegetation management and weed control. In 2002, the Conservancy supplemented these alternatives with sheep grazing. The sheep proved to be far better at grazing around marsh than cattle and were very helpful in controlling exotic weeds, another requirement in the NBHCP.

To the Conservancy's surprise, the sheep also found ways to retrieve an explosion of water primrose from the Betts, Kismat and Silva marsh complex and devour it. This non-chemical alternative surprised the Conservancy given that sheep tend to avoid water. Both the sheep and the cattle help keep grass and weeds to an appropriate height so that improved Swainson's hawk foraging is facilitated.

Additional substantive vegetation management efforts are proceeding at the Conservancy's Brennan tract. The preserve's ability to provide grazing capabilities is under study, and since a viable Swainson's hawk nesting site is nearby (NB-14), this effort will take a top priority for 2003 and beyond.

*d. Exotic species control.*

The most serious weed threat is an exotic species of weed, thistle. Bull thistle and western star thistle are the most prominent. Consistent with the site-specific management plans, the Conservancy has moved to control all exotic plant species. This has become a major management challenge for the Conservancy, especially on land where recent restoration and enhancement construction has taken place.

The most challenging exotic plant species control work during 2003 will be on the Betts, Kismat and Silva sites as the Conservancy enters the second year following restoration and enhancement construction completion. The landscape contractor that conducted the original plantings on the site urged an aggressive three-year program to control exotic weed species so that native species would be more likely to enjoy strong establishment. A comparable challenge will take place on the follow up of the 2002 plantings on the newly-constructed restoration and enhancement construction sites at Lucich South, Bennett North and Bennett South. During 2002, these sites were partially planted, and exotics presented a challenge, and will likely continue to be a challenge as the plantings are completed. These sites have been planted with numerous native grass, shrub and tree species, with more plantings to come on them as the projects are finalized in early 2003.

The Conservancy has yet to identify non-plant exotics that present any significant threat to full and successful implementation of the NBHCP.

*e. Erosion control.*

Since much of the Conservancy's land is in rice agriculture, and since the rice fields have been precision-leveled, there are relatively few erosion control needs or opportunities on current Conservancy land holdings. On the portion of the Conservancy's land that is not in rice production, pasture is the most prevalent land use. Therefore it too, with its ground cover, relative flatness and being well developed with agricultural drains, offers little opportunity or need for erosion control efforts.

The Conservancy's managed marsh complexes are specifically designed to reduce erosion, and the Conservancy expects there to be few erosion challenges around these complexes. In order to control the substantial amount of water flowing through managed marsh components of the Conservancy's reserve system, the Conservancy has invested in water control structures that are extremely durable. The adjoining earthen structures are engineered for high integrity, and the Conservancy has moved quickly to identify and repair any potential weaknesses in these structures.

*f. Enhancement of native plant communities.*

The Conservancy continues, now for the second year, planting a number of native plants on its preserves. The plantings are in accordance with the guidelines provided for in the 1997 NBHCP, and their placement is spelled out in the individual site-specific management plans for the various reserves. These are reviewed by the Conservancy's consulting wildlife biologists, reviewed and approved by the Conservancy's Board of Directors, and submitted to the NBHCP TAC for review and approval through the site-specific management plan approval process. Table 4 shows the native trees and shrubs the Conservancy planted on this year's restoration and enhancement construction projects.

TABLE 4  
 THE NATOMAS BASIN CONSERVANCY  
 NATIVE TREES AND SHRUBS PLANTED  
 IN 2002 ON CONSERVANCY PRESERVES

COMMON NAME	SCIENTIFIC NAME
<i>Tree species</i>	
Arroyo Willow	<i>Salix lasiolepis</i>
Oregon Ash	<i>Fraxinus latifolia</i>
Valley Oak	<i>Quercus lobata</i>
Sandbar Willow	<i>Salix exigua</i>
Western Sycamore	<i>Platanus racemosa</i>
<i>Shrubs</i>	
California Blackberry	<i>Rubus vitifolius</i>
California Wild Rose	<i>Rosa californica</i>
Coyote Brush	<i>Baccharis pilularis</i>
Button willow	<i>Cephalanthus occidentalis</i>
Mule Fat	<i>Baccharis viminea</i>

The Conservancy's approved site-specific management plan specifies numerous native grass species. Among those planted during 2002 on the Bennett South, Bennett North and Lucich South properties were Blue Wild Rye, California Barley, Idaho Fescue, Native California Brome, Pine Bluegrass and Purple Needlegrass. Tule (*Scirpus acutus*) was also planted.

TABLE 5  
 THE NATOMAS BASIN CONSERVANCY  
 NATIVE TREES PLANTED ON CONSERVANCY PRESERVES AS A  
 PART OF RESTORATION & ENHANCEMENT ACTIVITIES

SITE	2001 <sup>1</sup>	2002 <sup>1</sup>	2003 <sup>2</sup>
Betts, Kismat & Silva tracts	200		83
Bennett South		60	
Bennett North (planned for Spring '03) <sup>3</sup>		4	4
Lucich South (planned for Spring '03) <sup>3</sup>			21
<b>Plant Total Per Year</b>	<b>200</b>	<b>60</b>	<b>108</b>

<sup>1</sup> Original planting completed under the habitat creation project.

<sup>2</sup> Plant replacements installed in January 2003.

<sup>3</sup> From 2002 construction; delayed by weather. Will be completed in early 2003 when weather conditions permit.

*g. Habitat enhancement activities for the covered species (e.g., construction of artificial burrows for giant garter snake).*

The Betts, Kismat and Silva preserves' restoration and enhancement project focused on giant garter snake-friendly design and was finalized in 2002. The uplands irrigated pasture on the Betts tract, specifically geared towards Swainson's hawk foraging, was the subject of additional improvements, particularly those related to water supply and irrigation efficacy. The restoration and enhancement construction project on the Bennett North and Lucich South tracts were largely designed to capture and concentrate a good prey base for giant garter snakes known to populate the neighboring North Drainage Canal. A modest amount of trees were planted on these projects for the benefit of Swainson's hawks. On the Bennett South tract, 21.56 acres of native grass were planted where once there was a rice paddy, and this foraging area is approximately one mile from the Sacramento River and the Swainson's hawk populations there. In addition, on this property 0.51 acres of riparian woodlands were developed as were 1.53 acres of berm grasslands.

On the 241-acre Brennan tract, the Conservancy has planted nearly the entire tract in cover crops suited for Swainson's hawk foraging.

See also Table 4 and Table 5 (above) to see the plantings conducted in 2002 in support of habitat development.

Additional information on habitat enhancement activities can be found in the site-specific management plans, including the update for 2002 in Appendix I.

*b. Predator control.*

The Conservancy Board of Directors previously adopted a resolution<sup>3</sup> which provides for pet restrictions on the Conservancy's rented property.<sup>4</sup> Dogs and cats running loose on the property are seen as potentially harmful to some of the covered species and therefore the Conservancy has remained alert to possible predator and related problems. On numerous occasions, the Conservancy has contacted Sacramento County Animal Control to remove stray dogs left on the Conservancy's land and which roam the area. These control efforts have all been successful.

The Conservancy continues to deal with occasional domestic dogs and cats being introduced onto various preserves. There has been an on-going problem with citizens abandoning their pets on farms, and the Conservancy's property is no exception.

Nonetheless, the Conservancy has consulted with the TAC on numerous occasions regarding the proliferation of coyotes around the burrowing owl mounds on the Conservancy's Silva tract. The TAC has counseled to observe the populations, and if they get excessive, then control measures are warranted. Otherwise, the coyotes are seen as part of the natural habitat. The Conservancy has managed these coyotes so that their populations do not get too large on this tract. The Conservancy is unaware of any additional, substantive, predator control issues on its preserves.

*i. Control of pesticide uses on reserve lands.*

The Conservancy includes as a provision in all of its agricultural leases and right of entry agreements that the use of pesticides on Conservancy mitigation land is strictly controlled. In its land management activity, the Conservancy rarely allows pesticides to be used. Insecticides have not been permitted on Conservancy-owned mitigation land with the exception of occasional use in active farming operations. Rice production generally does not require significant insecticide applications.

<sup>3</sup> Resolution #3.99.23 includes "pet restrictions."

<sup>4</sup> The dog that lives on the Betts tract is owned by the previous land owner but cared for by the Conservancy's caretaker. Since the house lies near the entrance to the Conservancy's land, the dog is helpful in alerting the caretaker to trespassers. Additionally, the dog remains in a very large fenced area and is extremely well trained to never go beyond the fenced area.

Of all the pesticides (e.g., fungicides, insecticides, rodenticides, etc.), the only one permitted to date on Conservancy owned mitigation land (other than in active farming operations) are herbicides. These have infrequently been used for two purposes. First, to reduce plant mass around structures, particularly those subject to fire (numerous incidents of arson have been reported to authorities in and around the northern portion of the Natomas Basin). In these instances, the Conservancy has used herbicides not so much to kill vegetation growth around such structures, but rather, to stunt growth. This has worked well. Second, herbicides have been used to control exotic vegetation. The Conservancy has worked hard to allow native vegetation a better chance at becoming strongly established, and especially with the extensive planting of native plants in 2001 and 2002, herbicides have been used on a limited basis for this purpose. In all cases, the use of herbicides in non-rice production areas has been allowed only after cattle grazing, mowing and other practices have proven impractical, impossible or less efficacious.

*j. Enhanced ditch and drain management for the covered species on reserve lands.*

With the exception of the restoration and enhancement construction projects discussed elsewhere in this report, the Conservancy has not engaged in very much activity related to drain management. Continued drain inspections, clearing of impediments to flow (usually water primrose which has broken free and clogged a culvert) and water quality observations lead the way in this regard.

The Conservancy staff continues to meet periodically with senior management of RD 1000 and the Natomas Central Mutual Water Company to point out areas in and around Conservancy mitigation land where giant garter snakes have been found. These discussions, as well as other familiarization activities, have built an excellent working relationship, and the covered species have or will ultimately benefit directly.

*k. Coordination of any research conducted within reserves with outside species experts and other individuals and groups.*

A few research activities were conducted on Conservancy mitigation lands in 2002. The Conservancy has sponsored discussion group activities with representatives of the Swainson's hawk Technical Advisory Committee, examining ideas and options for improving upland land management to benefit Swainson's hawks. This has included an exhaustive scientific literature search (completed after the close of the reporting year).

Additionally, the Conservancy engaged the Sacramento Tree Foundation to conduct a count of trees on Conservancy-owned land in 2002. That report follows as Appendix G. The report helps establish a baseline tree count on Conservancy-owned mitigation lands. As the many recently planted trees mature to a size that they can be counted as mature, and thus included in future tree census reports, there should be a very large change in the total number of trees on these properties.

The Conservancy also authorized a winter bird count on and around Conservancy owned mitigation lands in 2002. This report follows as Appendix J. Again, it was determined that it would be good to obtain a baseline report for those areas generally around Conservancy preserves for future reference.

*l. Management activities proposed for coming year.*

The year 2003 will be the most challenging year ever for the Conservancy. Challenges will be presented primarily by:

1. the most aggressive restoration and enhancement construction schedule yet,
2. expectation of a revised and improved, yet more complex, NBHCP,
3. the need to implement effective management for recently-constructed restoration and enhancement projects on the Betts, Kismat, Silva, Bennett North, Bennett South and Lucich South tracts, and
- 4.) incorporation of an additional habitat conservation plan, the Metro Air Park HCP, into the Conservancy's program of work.

Given that the Conservancy's inventory of mitigation land has risen dramatically in the past few years (see Table 2), plan implementation is coming much faster than had been expected, so the Conservancy will be working with all concerned to refine its work and make certain plan implementation stays on track.

**Figure 2. Acquisitions Continue in the Swainson's hawk Zone.** In 2002, the Conservancy acquired two additional properties in the Swainson's hawk Zone, including the Alleghany 50 tract at the bottom of the photo at right and the Cummings tract at the top. Note the Sacramento River at left and Fisherman's Lake in the upper right hand corner. Photo: Cal Aero Photo for The Natomas Basin Conservancy.



In addition, the Conservancy has begun efforts at reserve consolidation. It now looks to further consolidate reserves around the North Basin Reserve Area, the Central Basin Reserve Area and the Fisherman's Lake Reserve Area. This will assist with reserve contiguity, and at the same time, very likely assist with more effective land management.

For the year 2003, activity will center around:

1. remaining on an aggressive compliance track so that timely reports are submitted as required by the NBHCP and IA,
2. managing acquired mitigation lands for the benefit of the covered species, particularly as a result of the changes in the land attributable to the sizable restoration and enhancement activities planned for the year,
3. purchasing or accepting additional mitigation land as required and needed, including working towards greater reserve consolidation,

4. continuing to complete species monitoring projects for the Swainson's hawk and giant garter snake,
5. appropriately managing newly-created restoration and enhancement projects to make certain invested funds achieve intended aims (e.g., achieving strong stand establishment of native vegetation, setting up water management practices that efficiently and effectively supply newly-created managed marsh with water),
6. planning, initiating and overseeing new restoration and enhancement construction projects, and
7. refining upland management practices so that optimum Swainson's hawk foraging opportunities exist on Conservancy land.

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**7. A description of the habitat enhancement activities conducted in the previous year and those proposed for the coming year.**

A discussion on enhancement activities conducted the previous year has been incorporated into several items above. Proposed habitat enhancement work can be found in item I.6 above as well as the revised site-specific management plan update (see Appendix I). The Conservancy is experiencing an intensive amount of such work given the rapid acquisition of mitigation lands.

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**8. A report of any scientific research authorized or conducted in the previous calendar year on Conservancy Lands other than research conducted directly by USFWS or CDFG, and a description of any research proposed for the coming year.**

See item section I.6 (k) above.

Research planned for 2003 falls primarily into monitoring efforts, including a.) monitoring for the giant garter snake, and 2.) monitoring for the Swainson's hawk. However, the aforementioned cooperative work with the Swainson's hawk Technical Advisory Committee will be an important initiative for 2003. This effort is directed towards identifying upland land management practices that maximize foraging opportunities for the Swainson's hawk.

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**9. An itemization, if known, of the number of individuals of the Covered Species taken by the Conservancy in the course of management, relocation, or scientific study, and the disposition of those individuals.**

The Conservancy did not detect any incidental take of any of the covered species in the form of death or injury resulting from its restoration, enhancement and management activities. However, some individuals of the covered species may have been disturbed or harassed, and it is possible some may have been injured but avoided detection during these activities. Management activities were mostly agronomic in nature, including water management, livestock management, crop cultivation, vegetation management, debris removal, etc., and took place on all of the land mapped and found in Appendix B. Restoration and enhancement construction activities took place on the Conservancy's Betts, Kismat, Silva, Bennett North, Bennett South, and Lucich South tracts (see referenced map in Appendix B). These activities included earth moving, installation of water control structures, planting of vegetation, and other activities normally associated with construction of marsh. Measures the Conservancy has taken to avoid and minimize incidental take are those found in the NBHCP and the site-specific management plan for the site in question, all of which were observed by Conservancy staff and contractors. The Conservancy employs biologists to conduct on-site restoration and enhancement monitoring activities in order to detect take and ensure implementation of take avoidance and minimization measures. The Conservancy communi-

cates and advises its lessee farmers (see Section 6b above, “Suitable agricultural practices”) and contractors as to the importance of avoiding take and reporting it where it occurs.

No incidental take was reported by Conservancy monitors or others conducting activities on Conservancy land. Because these measures have been employed, the Conservancy believes any incidental take of the covered species has been minimized and avoided as much as possible, and that any take that occurred falls within the amount authorized in the Incidental Take Permit. Take that may have occurred as a result of scientific activities (such as capture and disturbance) are outlined in the monitoring reports found in Appendix D and E. Take of giant garter snakes as a result of scientific activities is also covered under separate federal permit under section 10(a)1(A) of the ESA. Monitoring of the Swainson’s hawk was carried out under the terms of a Memorandum of Understanding between the Conservancy’s contractor and the California Department of Fish and Game.

**10. A yearly financial report prepared by a certified public accountant which provides: a tabulation of all Habitat Acquisition Fees and other Mitigation Fees collected by the Conservancy; all other sources of income to the Conservancy; all expenses incurred by the Conservancy during the previous year, including an itemization of all expenses incurred in land acquisition activities; the amount of funds held in reserve for future acquisitions; and the value of the endowment fund established from Endowment Fees.**

In Appendix H, a financial statement for the Fiscal Year ended December 31, 2002 is presented. Audited financial statements are prepared each year and are generally available around April 1.

**11. An assessment of the adequacy of funding projected for the coming year and a recommendation as to the amount that the Base Mitigation Fee should be increased or decreased as specified in Sections 4.5.7, 4.5.8, or 4.5.9 of this Agreement.**

In Appendix L, the Conservancy presents a summary of the financial model update it requisitioned during the reporting period (completed April 25, 2002). The model indicated a need for an increase in HCP fees. Accordingly, the Conservancy adopted a resolution<sup>5</sup> requesting that the City of Sacramento increase HCP fees (see Table 6, HCP Fee History). The Sacramento City Council voted unanimously soon thereafter (May 21, 2002; resolution #2002-300) to accept this recommendation and implement it immediately.

The pattern and process for evaluating the need for fee adjustments, and then getting all the necessary authorizations to implement such adjustments, has become well established. As the Conservancy progresses with implementing the NBHCP, its ability to estimate costs is enhanced. This in turn helps produce yet more refined budgeting activity.

**T A B L E 6  
H C P F E E H I S T O R Y**

YEAR	ESTABLISHED FEE
1997	\$2,240
1998	\$2,656
1999	\$3,292
2000	\$3,942
2001	\$5,993 + \$4,028 premium = \$10,021 *
2002	\$7,934 + \$4,028 premium = \$11,962 *

<sup>5</sup> Conservancy Board of Directors resolution #05.02.02 adopted by unanimous vote May 1, 2002.

*\*HCP “premium” was established as a result of an agreement to settle litigation, FWS v. Babbitt.*

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## 12. Maps depicting items set forth under paragraphs (1), (2), (3), (4), and (5) above.

In Appendix A, the Conservancy provides maps of fees paid as presented by the City of Sacramento. In Appendix B, maps of Conservancy mitigation lands are provided. In addition, the Conservancy has completed land surveys of all acquired mitigation lands. The surveys conform to American Land Title Association (ALTA) requirements and are available in the Conservancy's office.

**Figure 3. Aerial Photos of All Conservancy Lands Have Been Taken.** The Conservancy has had aerial photos taken of all of its mitigation land. The photo at right is of the entire Natomas Basin, taken in September of 2002. The Conservancy acquires such basin-wide photos to allow tracking of its restoration and enhancement construction projects. The Conservancy's restoration and enhancement construction efforts can be seen in this photo, and include the Betts, Kismat, Silva, Bennett North, Bennett South and Lucich South tracts.

Other features include the Sacramento International Airport at left and the urbanized City of Sacramento in the lower portion of the photo. The Sacramento River runs along the left boundary of the photo, and the Natomas Cross Canal runs across the top.

The aerial photo can be viewed in larger format and downloaded by accessing the Conservancy's web site at [www.natomasbasin.org](http://www.natomasbasin.org). Photo: LANDSAT.



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## 13. Copies of all data collected and reports generated as a result of scientific research conducted on Conservancy Lands.

Reports covering such work conducted during 2002 include, 1.) monitoring for the giant garter snake (see Appendix D), 2.) monitoring for the Swainson's hawk (see Appendix E), 3.) geophysical testing on the Conservancy's pre-construction tracts (see Appendix C), and 4.) phase one environmental reports for newly acquired mitigation land (see Appendix F).

A report taking a survey of all trees located on Conservancy-owned mitigation land can be found in Appendix G and a winter bird count report can be found in Appendix J.

ALTA surveys of newly acquired mitigation land were also completed and are on file with the Conservancy at its office.

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#### 14. An accounting of the long-term endowment account.

An accounting of the Conservancy's Endowment Fund can be found in Appendix H along with the financial statement of the organization. During 2002, the Conservancy's Board felt there were sufficient assets in the Endowment Fund account (\$1,914,434.00 at year end) to employ the services of an Endowment Fund manager. By resolution #10.02.03, the Conservancy's Board of Directors voted unanimously at its October 2, 2002 meeting to select Wells Fargo Investments as its Endowment Fund investment manager. The action followed adoption of an Endowment Fund Investment Policy (resolution #09.02.03, adopted by unanimous Board of Directors vote on September 4, 2002). The action of placing the funds with the Investment Fund Manager was to take place as soon after December 31, 2002 as possible.

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#### 15. All other information described in Chapter IV, Section G.4 of the NBHCP.

See item number (6) above for a complete list of information listed in the HCP.

Other management activity included occasional meetings or communications with adjacent and neighboring land owners to update them with the Conservancy's program and to discuss any other issues related to the land management activities going on in and around the Conservancy's mitigation lands.

The Conservancy also acted to remove illegally dumped debris on Conservancy-owned properties. This activity seems to be taking greater time and effort as the amount of Conservancy mitigation land grows.



**Figure 4. Land Management Responsibilities Grow.** As the Conservancy's land holdings grow, so do its management responsibilities. In 2002, the Conservancy saw more debris illegally dumped on its property than ever before. An example includes the vehicle pictured at left, disposed of one evening on the Conservancy's Lucich South preserve. Photo: The Natomas Basin Conservancy.

The Conservancy continues to install locks on all access gates on Conservancy mitigation land. It also controls trespassing and hunting on such lands as well.

Property tax management has taken a considerable amount of the Conservancy's time, and the Conservancy enrolled several of its Sutter County properties in Williamson Act contracts in 2002. This will help reduce the property tax burden on Conservancy-owned farm land.

The Conservancy entered into an agreement with Sutter County during 2002 with respect to restoration and enhancement construction on Conservancy-owned mitigation land. The agreement can be found in Appendix K. In what may be the first of its kind between a habitat lands management organization and a unit of local government, the Conservancy and Sutter County signed the agreement to facilitate long-range planning and coordination between the two entities. The agreement term is for 20 years, and covers Conservancy-owned mitigation land in the Sutter County portion of the Natomas Basin. A procedure for revisions is included in the agreement so that any additional Conservancy mitigation land acquisitions can be included.

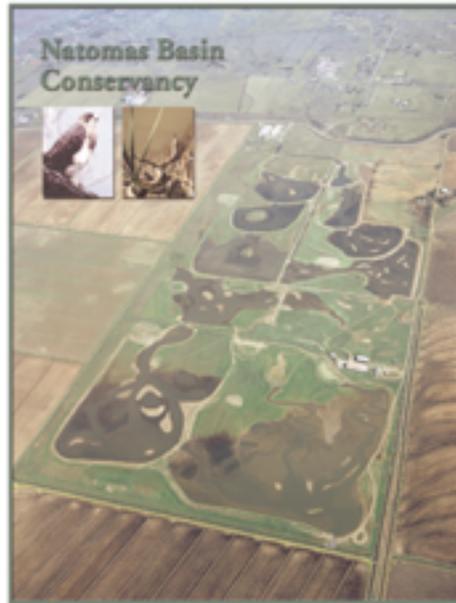
The agreement, titled “Development Agreement Between The County of Sutter and The Natomas Basin Conservancy,” was approved by both the Sutter County Board of Supervisors and the Board of Directors of the Conservancy. The Conservancy’s Site-Specific Management Plan, which details how each of the Conservancy’s preserves will be structured and used, was an instrumental part of the agreement.

The agreement provides for Sutter County to continue to exercise its authority over land use within its borders, and sets a clear plan for the Conservancy’s habitat development activity. This will help both the County and the Conservancy with long-range planning and budgeting. The Conservancy owns approximately 1,300 acres of land in the Sutter County portion of the Natomas Basin.

The Conservancy also manages participation in federal farming programs, working regularly with the U.S.D.A.’s Farm Services Agency in Yuba City, California to preserve eligibility of Conservancy farming tracts in the relevant programs.

Additional efforts in managing rental housing, repairing electrical, plumbing and HVAC in the rental housing, and locating signage and gates around these areas took additional staff effort.

Finally, Conservancy management has some responsibility to provide a public education component in its implementation of the NBHCP. In Figure 8, a reproduction of the Conservancy’s web site home page is shown. The web site is designed to be easily updated, facilitate downloading of large files, and serve as a good reference point for those interested in the Conservancy’s work. Available to the site’s viewers is a copy of the instructional brochure completed by the Conservancy (see Figure 5). Also available are copies of several reports, maps, photos and news items. One of the most exciting features of the site is the viewable and downloadable video sequence of the Swainson’s hawk. The production of the video was completed with the assistance of the Friends of the Swainson’s hawk.



**Figure 5. New Conservancy Brochure Features Completed Restoration and Enhancement Construction Project.** The Conservancy completed and made available on its web site an informational brochure discussing its activities and responsibilities. Featured on the cover of the brochure (see at left) is the Conservancy’s first completed restoration and enhancement construction project on the Betts, Kismat and Silva preserves in Sacramento County. Photo: GriMedia for The Natomas Basin Conservancy.

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II. NATOMAS BASIN HABITAT CONSERVATION PLAN SECTION  
IV. G. 3

Accounting for each jurisdiction (City of Sacramento, Sacramento County, and Sutter County):

- 
- 1. Take: The annual incremental and cumulative area converted to urban development:**
- a. In the applicable permit area and entire NBHCP area.**
  - b. In the Swainson's hawk zone (the area within 1 mile of the Sacramento River).**
  - c. In vernal pools.**

The Conservancy provides information from the City in this regard in Appendix A which follows.

- 
- 2. Mitigation: The annual incremental and cumulative area of mitigation lands acquired:**
- a. In-Basin:**
    - i. Lands managed as marsh.**
    - ii. Lands managed as rice, including associated fallow land.**
    - iii. Lands managed as upland reserves.**
  - b. Out-of-Basin in Area "B."**
  - c. Out-of-Basin in Area "C."**
  - d. Status of the initial 400 acres (when purchased and what habitat type).**
  - e. Mitigation for vernal pools, as appropriate.**

Please refer to Section I (3) and Table 3 above for a response to "a." See also Section III (2) and Table 7.

As to "b," no lands have been acquired in Area B.

As to "c," no lands have been acquired in Area C.

As to "d," the initial 338 acres were acquired at the Betts, Kismat and Silva tracts. At present, the habitat type is a mix of upland reserve with a large percentage converted (or restored) to managed marsh. An aerial photo of the three tracts can be found in Figure 5.

The initial 400 contiguous acres were acquired in 1999 with the acquisition of the Lucich South and Bennett South properties. Combined, the tracts total 484.375 acres. Lucich South and Bennett South were both under restoration and enhancement construction during 2002. With the exception of minor remaining vegetation planting and minor construction remaining, the projects are largely completed. Lucich South remains mostly in rice, with a 200-foot wide strip of managed marsh on its easterly border against the North Drainage Canal. The North Drainage Canal is the site of numerous giant garter snake captures during recent monitoring efforts. The rice field drainage will spill into the 200-foot wide managed marsh area, thus concentrating prey for the giant garter snake.

The Bennett South tract is somewhat similar in status. Much of it remains in rice production, and the southern portion of the property contains managed marsh. The site also contains 29.05 acres of planted native grass and trees (see graphic, Figure 6).



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III. NATOMAS BASIN HABITAT CONSERVATION PLAN  
SECTION IV.G.4

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**1. The amount and location of all lands approved for urban development by public agencies (e.g., public works projects) for which mitigation fees were paid to the NBC in the preceding year.**

Please see the schedule of the amount of all lands for which mitigation fees were paid in Appendix A. A map showing the location of such land from the City of Sacramento is also included.

**2. A description of the locations and condition of any mitigation lands acquired in fee simple or conservation easement in the preceding year.**

A record of all lands acquired by the Conservancy by size and date of acquisition can be found in Table 2, page 2, titled, The Natomas Basin Conservancy, Land Acquisition Tally. A quick reference guide to all Conservancy preserves can be found in Table 7, Reserve Characteristics Illustration. A map showing the location of the following tracts can be found in Appendix B. General descriptions for the properties acquired during the preceding year follow. Descriptions describe the property at the time of acquisition:

**Ayala tract (part of the Central Basin reserve complex).** This 316.3674-acre parcel is bound by the East Drainage Canal on its West boundary and with some exception, Elverta Road on its North. It is nearly square in shape, except that the northeast corner is shaved off. The property is bordered on its east, south and west by sizable water conveyance structures. It has historically been used as a rice field, and it borders what has historically been known as “snake alley.” It is nearly completely within the 100-year flood plain, and is known as one of the lowest places in the Natomas Basin. Its southern boundary lies approximately 7.25 miles north of downtown Sacramento and 1.25 miles north of the City of Sacramento City Limits line at Elkhorn Boulevard.

The Ayala tract has Sacramento County assessor parcel numbers 201-0180-016 and 201-0190-047. It is provided water by the Natomas Central Mutual Water Company. It was purchased by the Conservancy on February 20, 2002.

**Sills Ranch tract (part of the Central Basin reserve complex).** The Conservancy’s 575.5559-acre Sills Ranch tract lies on the northwest corner of the intersection of U.S. Highway 99 and Elverta Road. It is roughly in an upside-down “L” shape. It lies approximately 8.25 miles northwest of downtown Sacramento. The land is almost completely surrounded by rice farms, and it has been planted to rice most of its modern history. On the east and north, it is bounded by large water conveyance structures, and on the west, it is mostly bordered by a large water conveyance structure, in which several giant garter snakes were identified in the summer of 2002. Beyond the large water conveyance structure on the eastern boundary lies U.S. Highway 99. The property is bounded on the south by Elverta Road, then more rice fields.

The Sills Ranch tract has Sacramento County tax assessor numbers 201-0030-018 and 201-0120-033. It was purchased by the Conservancy on July 15, 2002. The property was partly dedicated to the Conservancy by Alleghany Properties, Inc. in lieu of payment of the Acquisition Fund portion of the NBHCP fee.

It is provided water service by the Natomas Central Mutual Water Company.

TABLE 7  
THE NATOMAS BASIN CONSERVANCY  
RESERVE CHARACTERISTICS ILLUSTRATION\*

CHARACTERISTIC	MITIGATION LAND TRACTS IN ORDER OF ACQUIRED DATE														
	Silva	Betts	Kismat	Bennett North	Bennett South	Lucich North	Lucich South	Brennan	Frazer	Souza	Natomas Farms	Ayala**	Sills**	Alleghany 50**	Cummings**
COUNTY															
Sacramento	●	●	●							●	●	●	●	●	●
Sutter	○	○		●	●	●	●	●	●						
PLANNED LAND USE															
Rice				●	●		●					●	●		●
Upland	●	●	●		●	○		●	○	●	○			●	●
Marsh	●	●	●	○	●	○	○	○	○		○	○			
WATER															
Natomas Water Co.				●	●	●	●		●	●	●	●	●	●	●
Ground Water	●	●				○		●							○
Surface Water	●	●	●												
MANAGEMENT PLAN															
Covered by Approved SSMP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Not yet covered													●	●	●
Marsh Construction–2001	✓	✓	✓												
Marsh Construction–2002				✓	✓		✓	○							
Marsh Construction–2003						●			●	●	●				
EXISTING TREES															
0				●	●	●	●		●			●	●		
1 – 10			●								●				
11 – 30								●		●					
31+	●	●												●	●
OTHER															
Fenced	●	●	●		○			○		○	○				
Active Cattle Grazing	●	●	●							○	○				
Residential Structure(s)	●	●								●					
Agricultural Structure(s)	●	●								●					
Vernal pools	✓														

\* Solid dot (●) represents inclusion of characteristic on that tract; hollowed-out dot (○) represents minor or partial inclusion on the referenced tract; a check mark (✓) represents completion of project.

\*\* Since site-specific land management plans did not exist for the Conservancy's Ayala, Sills, Alleghany and Cummings tracts at the end of 2002, the "planned land use" designation in this illustration for these tracts are actually "anticipated" land uses and have not received required approvals.

**Alleghany 50 tract (part of the Fisherman's Lake reserve complex).** This 50.2601-acre parcel lies at the northeast corner of the intersection of San Juan Road and Garden Highway in Sacramento County, adjacent to Garden Highway is the Sacramento River. It is approximately 3.75 miles northwest of downtown Sacramento.

It has historically been used as upland crop or row crop ground, most recently in tomatoes and wheat. It has numerous large trees at selected locations on its borders, including numerous trees in the north central portion of the property. It lies approximately 3,200 feet south of Fisherman's Lake.

The tract has Sacramento County assessor parcel number 225-0190-011. It is provided water by the Natomas Central Mutual Water Company. It was acquired by the Conservancy through partial donation and partial purchase November 7, 2002 in a deal with Alleghany Properties, Inc.

**Cummings tract (part of the Fisherman's Lake reserve complex).** This 66.8307-acre parcel lies approximately four miles northwest of downtown Sacramento in the County of Sacramento. It is bounded on the northeast by Fisherman's Lake and on the west by Garden Highway, then the Sacramento River (see aerial photo, Figure 7).

Most of the tract has historically been used for growing rice, although the soil on the westernmost portion of the property will not support rice, and could be planted to upland crops. It has numerous large trees at selected locations on the western border of the property. There is a groundwater well on the property, although its quality and yield have not yet been determined.

The tract has Sacramento County assessor parcel numbers 225-0110-018 and 225-0110-051. It is provided water by the Natomas Central Mutual Water Company. It was acquired by the Conservancy through partial donation and partial purchase November 7, 2002 in a deal with Alleghany Properties, Inc.

**Figure 7. Strategically Acquired Mitigation Land.** The photo at right shows the Conservancy's Cummings tract, acquired in 2002. Note Fisherman's Lake in the lower right hand corner and the Sacramento River in the upper portion of the photo with the Cummings tract in between. Photo is looking in a westerly direction. Photo: GriMedia for the Natomas Basin Conservancy.



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**3. An accounting of the taking of any individual giant garter snakes, Swainson's hawks, or other covered species, if known, as a result of activities in the City's or Counties' permit areas in the preceding year, including any specimens taken for scientific purposes.**

See Section I.9 (above) for a thorough discussion on this point.

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**4. Plans for the acquisition of reserve lands in fee simple or conservation easement in the forthcoming year.**

At the time of this annual report, there were no plans to purchase property for 2003. This is due largely to the fact that the City has collected fees on 4,599.11 acres, and issued urban development permits on 4,324.1 acres. At the 0.5 to 1.0 mitigation ratio, that totals 2,162.05 acres needed for mitigation. The Conservancy presently holds 2,802.65 acres, so this surplus condition of 640.6 acres suggests there will be no need to acquire mitigation land in the near future.

However, to the extent the Conservancy will be acquiring property in 2003, it will focus on reserve consolidation. Other attractive properties with substantial biological values may surface and offer excellent opportunities. However, the priority of the Conservancy remains in the area of reserve consolidation in the North Basin Reserve Area, Central Basin Reserve Area and Fisherman's Lake Reserve Area.

The aim of the Conservancy's mitigation land acquisition program is to continue to attempt to assemble land necessary to meet the 2,500-acre contiguous land requirement, along with smaller parcels in minimum 400-acre blocks.

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**5. An outline of habitat management, enhancement, and monitoring activities conducted in the preceding year and planned activities and goals for the forthcoming year.**

Please see I.6 above for a full discussion of this subject.

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**6. Pertinent results of biological surveys and monitoring activities conducted in the preceding year.**

Please refer to Appendices D and E for a complete reporting on this issue.

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**7. Pertinent information from RD1000 and NCMWC as described in Section C.1.e above (Reporting/Revisions).**

Reports from RD 1000 and Natomas Mutual Water Company follow in Appendix M.

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**8. Any other pertinent information regarding implementation by the permittees of the terms of the NBHCP and its associated permits or circumstances within the reserve system specifically or the plan area generally.**

The Conservancy continues to serve as a resource for those planning the revised NBHCP. Parties involved in this activity include the City of Sacramento and the County of Sutter. Since Metro Air Park has received its Incidental Take Permit, the Conservancy will serve as plan operator for this plan as well. In both cases, the Conservancy leaves policy issues to the plan proponents. The Conservancy's role remains one of providing information about the implementation and operation of the HCP.

As further indications of Conservancy activities during the reporting year, copies of extracts of the adopted minutes of all Conservancy Board of Directors meetings can be found in Appendix N.

#### IV. ANNUAL WORK PLAN SECTION IV.D.I

The work plan for the Conservancy's year 2003 effort can be found in Section I.6.l, "Management activities for the coming year."



**Figure 8. Conservancy Web Site Established and Used in 2002.** Although formally initiated in 2001, during 2002 the Conservancy's web site became substantial and fully operational. It can be found at [www.natomasbasin.org](http://www.natomasbasin.org). The web site includes copies of numerous documents used by scientists, biologists and interested public. Given its utility and wide accessibility, it is fast becoming a repository for considerable information. Photo: The Natomas Basin Conservancy.

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T A B L E O F A P P E N D I C E S

Appendix A:	Report from the City of Sacramento
Appendix B:	Maps of Mitigation Land Acquired To Date
Appendix C:	Geophysical Reports and Studies on Conservancy Land, 2002
Appendix D:	Giant Garter Snake Monitoring Report, 2002
Appendix E:	Swainson's hawk Monitoring Report, 2002
Appendix F:	Phase One Environmental Reports for Mitigation Land Acquisitions in 2002
Appendix G:	Tree Count, Summer 2002
Appendix H:	Financial Statement
Appendix I:	Site-Specific Land Management Plan
Appendix J:	Winter Bird Survey of the Northern Natomas Basin
Appendix K:	Development Agreement, The Natomas Basin Conservancy and County of Sutter
Appendix L:	Economic Planning Systems' Finance Model Update
Appendix M:	Reports from Reclamation District 1000 and Natomas Mutual Water Company
Appendix N:	Minutes Recap of the Board of Directors Meetings, The Natomas Basin Conservancy

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## GLOSSARY AND ABBREVIATIONS

Annual Report	The Implementation Annual Report. The Conservancy is required under Section 5.2 of the Implementation Agreement and Section IV.G.4 of the Natomas Basin Habitat Conservation Plan to produce and deliver an implementation annual report no later than 60 days after the close of the calendar year. Items to be included in the report are specifically prescribed.
CDFG	California Department of Fish and Game
Conservancy	The Natomas Basin Conservancy. A California non-profit public benefit corporation serving as “plan operator” of the Natomas Basin Habitat Conservation Plan.
Giant garter snake ( <i>Thamnophis gigas</i> )	The giant garter snake is one of the largest garter snakes of the genus <i>Thamnophis</i> , with a total length up to 4.5 feet or greater. The garter snake in the Sacramento Valley and Delta regions has a dorsal ground color often dark brown to olive or nearly black, a complete dorsal strip varying in color from dull yellow to bright orange, and often orange on the ventral surfaces as well. Officially listed as a “threatened” species under federal and state authority, it is one of the two primary species protected under the NBHCP.
IA	The Natomas Basin Habitat Conservation Plan Implementation Agreement. (See NBHCP)
MAPPOA	Metro Air Park Property Owners Association, permittee of the Metro Air Park Habitat Conservation Plan.
NBHCP	The 1997 Natomas Basin Habitat Conservation Plan. The NBHCP applies to the 53,341-acre interior of the Natomas Basin, located in the northern portion of Sacramento County and the southern portion of Sutter County. The Basin contains incorporated and unincorporated areas within the jurisdiction of the City of Sacramento, Sacramento County and Sutter County. The purpose of the 1997 NBHCP is to promote biological conservation along with economic development and the continuation of agriculture within the Natomas Basin. The NBHCP establishes a multi-species conservation program to mitigate the expected loss of habitat values and incidental take of protected species that would result from urban development, operation of irrigation and drainage systems, and rice farming. The goal of the NBHCP is to preserve, restore, and enhance habitat values found in the Natomas Basin while allowing urban development to proceed according to local land use plans. The NBHCP is a supporting document for federal Section 10(a)(1)(B) and State Section 2081 permit applications. Section 10(a)(1)(B) of the federal Endangered Species Act allows incidental take of endangered or threatened species subject to its permit requirements. Similarly, State Section 2081 of the California Fish and Game Code allows the California Department of Fish and Game to enter into management agreements that allows activities which may otherwise result in habitat loss or take of individuals of a state listed species.



**Loggerhead shrike**  
*(Lanius ludovicianus)*  
 One of the NBHCP's "covered species" and seen on the Conservancy's Silva tract during 2002.

Managed marsh	Seasonal or perennial wetland managed for habitat values for the giant garter snake, a federally protected species, and other covered species. Such land must meet minimum requirements as described in the NBHCP which include, but are not limited to, an assured water supply that will serve the marsh from April through September of each year. The marsh will be a combination of open water, land with wetland vegetation, and other upland areas and may include a buffer area at the periphery. The Conservancy must develop detailed management plans pursuant to Chapter IV, Sections C.1 and D of the NBHCP for those Conservancy lands designated as managed marsh, in coordination with and subject to the approval of the CDFG and USFWS.
Permit	Or, incidental take permit. A permit issued by the USFWS under Section 10 (a)(1)(B) of the federal Endangered Species Act which authorizes the incidental take of a covered species which may occur as a result of urban development, rice farming and management activities with the permit area. Permit may also be used to collectively refer to Section 10 (a)(1)(B) permit, and the Section 2081, management authorization, of the State of California.
RD 1000	Reclamation District 1000.
Swainson's hawk	( <i>Buteo swainsoni</i> ) The state-listed threatened Swainson's hawk is a medium sized buteo (25 to 35 ounces) and is distinguished from other buteos by long, narrow, pointed wings. Swainson's hawk plumage varies greatly. Light phase birds have buff white wing linings with darkly barred brown flight feathers; dark phase birds are dark brown with white undertail coverts, and intermediate reddish plumage occurs between phases. It is one of the two primary species covered in the 1997 NBHCP.
TAC	Technical Advisory Committee. The TAC consists of six members, two each appointed from the City of Sacramento, the California Department of Fish and Game and the U.S. Fish and Wildlife Service.
USGS/BRD	United States Geological Service, Biological Resource Division. The Conservancy works with the Dixon, California office of USGS/BRD on giant garter snake matters.
USFWS	United States Fish and Wildlife Service.
Water Company	The Natomas Central Mutual Water Company is the purveyor of water to most of the Conservancy's mitigation land. The Conservancy owned 2,209 shares of stock in the Water Company at December 31, 2002.