

WILD Equity INSTITUTE

*Building a healthy and sustainable global community for people
and the plants and animals that accompany us on Earth*

MEMORANDUM

TO:
FROM: Brent Plater, Executive Director, Wild Equity Institute
DATE:
SUBJECT: **Sharp Park Golf Course**

Sharp Park Golf Course is beset by numerous problems. **The best solutions to these problems will address most or all of these problems**; proposed solutions that focus on one or two of these problems will likely result in poor public resource allocation, negatively affecting generations to come.

Unfortunately the recommendation for Sharp Park released by the San Francisco Recreation and Parks Department in 2009—**restricting all other recreational uses on the property, making small changes in the course layout to address environmental concerns, constructing a multi-million dollar sea wall along the coast, and investing \$11 million dollars or more into course improvements**—ignores the vast majority of these concerns in order to maximize golf opportunities. Better solutions are available.

Restoring Sharp Park in partnership with the National Park Service is the best public policy option because it solves many of Sharp Park's problems simultaneously.



A restoration vision for a new National Park at Sharp Park

- ☛ Restoring Sharp Park is the **least-costly management option for the City in the short, medium, and long run.**
- ☛ Restoring Sharp Park allows San Francisco to **match recreation supply with modern recreation demand, while improving access to affordable, quality golf in the City.**
- ☛ Restoring Sharp Park will **provide the best short- and long-term recovery opportunities for endangered species on the property.**
- ☛ Restoring Sharp Park is the **most effective method to preserve Sharp Park Beach and defend Sharp Park and surrounding communities from sea level rise.**

This briefing book provides you with source data supporting each of these conclusions.

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SHARP PARK FINANCIAL BRIEFING MEMORANDUM

Introduction

This memorandum focuses on Sharp Park Golf Course's financial problems. The first section summarizes all known financial assessments of Sharp Park Golf Course's operating income and expenses. The second section summarizes assessments of the long-term capital costs that will be needed to retain an 18-hole golf course on the property.

The exhibits attached to this memorandum provide excerpts from reports addressing Sharp Park Golf Course's capital and operating costs from 1993 to present. Although the Recreation and Parks Department's data suffers from accuracy and transparency problems, **all of these assessments have concluded that Sharp Park Golf Course is losing money and is unlikely to become solvent unless San Francisco privatizes the revenue stream and socializes the environmental and capital costs.** The Recreation and Parks Department's own estimates show that the golf course has lost over a million dollars between 2005 and 2010.

I. Summary of Operational Income and Expense at Sharp Park Golf Course Over Time

- 1. 1993 San Francisco Civil Grand Jury's Property Committee Report on Recreation and Park Department Management of City-owned Golf Courses.** This report, and the accompanying San Francisco Chronicle article, discusses the Sharp Park Golf Course lessee's failure to comply with various provisions of its lease, including a **failure to provide financial statements** to the Recreation and Parks Department and a **failure to make a required \$575,000 investment in course improvements** by the date specified in the lease.
- 2. February 1, 2006 Pacifica Tribune Article, "Sharp Park Golf Course vs. the Frogs."** In this article, the current lessee, Mark Duane, states that he has had to lay-off employees, has seen his business plummet, and that he **may need to close the entire business** because of chronic flooding problems at the course.
- 3. Lessee's Tax Forms for 2002-07.** In lieu of financial statements, the lessee appears to provide tax forms to the Department. These tax forms indicate that the lessee has not paid any corporate tax on the business during this time period **because the business does not generate sufficient taxable income.**
- 4. January 12, 2006 Management Audit of the Recreation and Parks Department by the San Francisco Budget Analyst.** The Budget Analyst concludes that the Golf Fund is not self-sustaining and **required a \$536,372 allocation from the General Fund in order to balance its budget in FY04-05.** The Budget Analyst also concluded that **rounds played at Sharp Park Golf Course declined by 38% between 2000 and 2006**, long before regulatory actions forced the lessee to stop draining water from the course. The Budget Analyst also concluded that **Sharp Park Golf Course is substandard, and absent**

infrastructure investments the course cannot increase its contribution to the Golf Fund, and will eventually degrade to the point that it is no longer economically viable. The Budget Analyst also found that the **Open Space Fund was used to fund a \$125,414 Sharp Park Water Tank Project.**

5. **August 2, 2006 San Francisco Examiner Article, "S.F. Golf Courses Plagued by Red Numbers."** This article describes how, even after rate increases, San Francisco's golf courses continue to lose money.
6. **January 2007 Draft National Golf Foundation Operational Review and Recommendations for City of San Francisco Golf Operations.** The National Golf Foundation conducted a comprehensive study of Sharp Park Golf Course and the City's other municipal courses. NGF noted the \$575,000 obligation for course investments that needs to be made under the existing lease at Sharp Park. NGF also noted that Sharp Park Golf Course's poor placement and historic dredging of wetlands have both contributed to **chronic flooding problems at Sharp Park, which have resulted in the loss of the original design of the course.** NGF found that approximately 20% of users are from Pacifica, approximately 20% from San Francisco, and the remaining users from other parts of the Bay Area. **NGF also surveyed Sharp Park golfers, who gave the course failing grades in nearly every category measured by NGF, indicating that they have very little loyalty to the course. Because of this, NGF concluded that the City cannot raise prices to cover Sharp Park's deficits absent improvement in course conditions: golfers would simply choose to play elsewhere if higher fees are imposed.** The final report reached the same conclusions but dropped the letter grades from the survey.
7. **April 25, 2007 Memorandum from Dawn Kamalanathan.** Ms. Kamalanathan's memo acknowledges that the Golf Fund is losing money, contrary to mandates from the Board of Supervisors to stop General Fund subsidies to the Golf Fund. The memo predicts performance of San Francisco's golf courses under a variety of different management models. **Her memo finds that in every scenario save one Sharp Park will lose significant amounts of revenue on an annual basis.** The one model that earns money is a privatization model using a non-profit structure.
8. **August 2008 PROS Consulting San Francisco Recreational Opportunities Summary Report.** PROS Consulting found that San Francisco is **subsidizing golf by approximately \$1.5 million annually and the subsidy is expected to grow to \$3 million annually by 2012** if changes are not made in management and investments are not made in capital. The report explained that San Francisco does not have the capital necessary to make these investments. The report found that **golf is oversupplied in the Bay Area by 6 million rounds**, creating a discounting trend that created a "cannibalistic" strategy of pricing in the industry. The report finds that nationwide people are choosing other forms of recreation. In San Francisco, the report shows that **the number one recreational demand is for more hiking and biking trails; golf comes 16th out of 19 options in the same survey.** The report explains that golf rounds played are decreasing rather rapidly, and Sharp Park is operating at 44% capacity. Nonetheless, the report recommends rebuilding Alister Mackenzie's original design, which caused the economic and environmental problems in the first place. **The report states that a capital investment of \$12-14 million is necessary to improve the course and clubhouse.**
9. **April 24, 2009 Report by Budget Analyst on Mirkarimi Ordinance.** The Budget Analyst found that Sharp Park lost \$42,784 in FY08-09. The deficit would be greater if a \$24,000

charge to the Natural Areas Program budget for environmental compliance expenditures for the golf course were included in the assessment. The numbers do not include cost allocations to Sharp Park Golf Course for several other cost centers noted below.

- 10. Controller's Data and Wild Equity Institute Assessment of Data, FY04-10.** The City and County of San Francisco's budget sheets provide the only available data for Golf Fund performance. However, the sheets present General Fund subsidies as revenue to the Golf Fund, and have large amounts of money in a "golf unallocated" column. **The Wild Equity Institute's assessment of this data shows that, after removing General Fund subsidies and apportioning unallocated costs, Sharp Park Golf Course loses between \$30,000 and \$300,000 each fiscal year.** The Wild Equity Institute's analysis provides two different approaches to allocating unallocated golf income and expenses. The first, called "percentage," is based on the size of Sharp Park relative to the golf fund budget. Sharp Park is roughly 12% of the overall golf fund each year, so it receives roughly 12% of the allocation under this method. The second, called "proportional," allocates 20% of the monies to Sharp Park Golf Course since it is one of five courses (i.e. 20%) the City manages.
- 11. Dawn Kamalanathan 2009 PROSAC Handout.** In this handout, Recreation and Parks Department Planning Director Dawn Kamalanathan finally adopts some version of the Wild Equity Institute's cost allocation structure, and finds that in every year between 2005-2009 Sharp Park lost money. **The total losses at Sharp Park from 2005-2009 are almost one million dollars.** Although her methodology is largely the same, Ms. Kamalanathan's analysis shows more significant losses than presumed by the Wild Equity Institute's analysis due to different assumptions about how to apportion "golf unallocated" expenses.
- 12. November 2009 Conceptual Restoration Alternatives Report.** The Recreation and Parks Department claimed in its Alternatives Report that retaining an 18-hole golf course at Sharp Park was the least-cost alternative at Sharp Park. **However, this was not true: in a separate report released the same day by the Department, Westervelt Ecological Services found restoring Sharp Park using a mitigation bank model would generate approximately \$5 million in net revenue,** whereas upgrading Sharp Park to an 18-hole golf course would cost San Francisco between \$6-\$11 million dollars, with no guarantee that annual operating deficits would be reversed after this expenditure.
- 13. December 2009 Stimulus Checkup, Senators Tom Coburn and John McCain.** The Senators highlighted a \$2.2 million dollar stimulus award for Sharp Park Golf Course's water project as "pure waste" because the course may be closed. **This is only part of the \$8.8 million dollar cost of the project; 75% of the water from the project is projected to be used by Sharp Park Golf Course.**
- 14. 2009 Emergency Sharp Park Sea Wall Repairs.** The Department **spent \$238,000 on improvements to Sharp Park's pump house and sea wall** to increase pumping capacity at the golf course. The pumping activity is what kills the threatened California red-legged frog. **These moneys largely came from the Open Space Park Renovation Fund.**
- 15. April 30, 2009 Letter for Coastal Engineer Bob Battalio, Philip Williams & Associates.** Bob Battalio states that in his judgment **armoring the sea wall at Sharp Park will cost approximately \$32 million dollars.**
- 16. June 2, 2010 SF Weekly Article, Bleeding Green.** This article finds that the capital expenditures necessary at Sharp Park Golf Course are **likely to be double than what the Department has told the public.**

II. Market Conditions Make it Risky for San Francisco to Gamble on Golf

The Recreation and Parks Department supports transferring Sharp Park to San Mateo County, privatizing course management, and obtaining a government bailout for environmental liabilities at the site. RPD suggests that under these circumstances, investments can be made in the golf course to create an elite, expensive course that could be profitable.

However, several lines of evidence indicate that this plan cannot succeed under current market conditions, and could potentially cost San Francisco and San Mateo County even more than the ongoing losses at Sharp Park. In addition to the data referenced above in the PROS Consulting report, the following articles indicate that golf is declining nationwide and in the Bay Area, making it extraordinarily difficult to implement business plans predicated on increasing demand or raising prices at existing golf courses.

1. **February 1, 2008, New York Times, *More Americans Are Giving Up Golf*.** Describes the national decline in the golf industry, and explains why it may not revert.
2. **March 11, 2008, Inside Bay Area, *North Livermore Residents on Edge*.** Describes an underperforming golf course in Livermore that is proposed for closure.
3. **November 22, 2009, Los Angeles Times, *Golf Courses Suffer As Recession Deals a Bogey*.** This article places a special emphasis on the over-built nature of golf in California and beyond.
4. **February 14, 2010, Santa Rosa Press Democrat, *On the Downswing*.** Similar to the above New York Times article, but with a special emphasis on Bay Area golf glut.
5. **March 15, 2010, San Jose Mercury News, *Mayor Urges Deeper Cuts to Save Jobs*.** Highlights Mayor Reed's proposal to sell a money-losing golf course in San Jose.
6. **June 1, 2010, San Francisco Chronicle, *Oakland Council Must Step Up and Face Hard Cuts*.** Highlights Oakland proposal to sell three city golf courses.
7. **February 18, 2010, San Mateo County Times, *San Mateo Raises Fees on Poplar Creek Golf Course*.** Highlights San Mateo's \$180,000 Golf Fund deficit.
8. **December 9, 2010, Santa Rosa Press Democrat, *Adobe Creek Golf Course Shuttered*.** Highlights another Bay Area Golf Course that was forced to close because of the declining demand for golf and the ongoing economic recession.
9. **May 30, 2011, National Public Radio, *Finding New Uses for Troubled Golf Courses*.** This story describes the oversupply of golf nationally, and shows how communities in Florida have seized the opportunity to create better public parks for everyone.
10. **May 25, 2011, Associated Press, *Salazar Announces Land Acquisition at Gettysburg*.** The National Park Service acquires a failing golf course in Virginia and incorporates into Gettysburg National Park.
11. **April 14, 2011, Mercury News, *Council Opts to Mull Over Golf Course Land Swap Deal*.** The Alameda City Council is considering whether to downsize golf course plans to accommodate environment and development concerns and to adjust to the downward trend in golf demand.
12. **May 16, 2011, San Francisco Business Times, *Montclair Golf Course Could Be Sold Under New California Budget*.** Governor Jerry Brown proposes to sell Montclair Golf Course in Oakland because it "serves no state function and should be sold off to pay debt."

13. **June 8, 2011, KABC 7 News, Los Angeles, *Burbank Golf Course Gets Aid as City Services Face Cuts*.** The City of Burbank approves a million dollar loan to its failing golf course while city services face \$8.7 million in cuts. Local residents decry this allocation of resources in this television article.
14. **June 2011, Landscape Architecture Magazine, *Fairways Under Fire*.** Featuring Sharp Park Golf Course and Lincoln Golf Course, the magazine makes an argument that underutilized golf courses around the nation should be repurposed to meet modern recreation demands within our limited open spaces.
15. **October 6, 2006, New York Times Article, *Vacation Homes: Seeking Birds Not Birdies*.** Describes the decline in demand for golf course around vacation homes, and the rise in demand for natural features.
16. **Restore-a-Nation, National Parks Conservation Association, 2010.** This report analyzes restoration efforts at National Parks around the country, including California. **It finds that restoration efforts provides substantial economic benefits for local communities, and measures returns on investment to be between 7% and 79%, depending on the type of landscape restored.**
17. **National Treasures as Economic Engines. NPCA and Various California Chambers of Commerce, 2001.** This report studies several National Parks in California specifically and finds that they generate large amounts of revenue and jobs for local communities. **Pinnacles and Point Reyes, the parks closest to Pacifica included in the report, generated \$40 million dollars in 2001 in personal income and created over 2,000 local jobs.**

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SHARP PARK RECREATION OPPORTUNITIES BRIEFING MEMORANDUM

Introduction

Sharp Park Golf Course is a failing enterprise. **In order to revitalize it, the San Francisco Recreation and Park Department has proposed spending at least \$11 million to improve course conditions on the property.**

The City does not have such capital to spend on Sharp Park. Instead, the City hopes to entice a private golf developer to invest in the golf course. To do this, the City is proposing to socialize the environmental costs of the golf course through a multi-million dollar federal bailout, give a private developer a long-term lease on the property, substantially raise green fees, and potentially privatize the work force at Sharp Park Golf Course.

This plan assumes that golf demand is strong enough that the course will continue to draw players. However, nationally, across the Bay Area, and at Sharp Park specifically golf demand is declining. **Under these market conditions, it is unlikely that an expensive course at Sharp Park's remote location would be able to attract the number of players necessary to offset the cost of improvements: even with heavily subsidized costs.**

Moreover, as golf demand has declined, other recreational activities, like hiking and biking, have increased. **By restoring Sharp Park, San Francisco can meet modern recreational demand with a revitalized recreational supply.**

This memorandum focuses on the opportunities for recreation alternatives at Sharp Park Golf Course. The first section describes current golf market conditions and modern recreational demand for other recreational activities. The second section summarizes what is known about the historic character of Sharp Park Golf Course today.

I. There is Less Demand for Golf Than Other Recreational Activities

The exhibits attached to this memorandum provide excerpts from reports that have assessed demand for various recreational activities in the San Francisco Bay Area. **Studies by the San Francisco Recreation and Park Department have shown that demand for golf at Sharp Park has been in decline since 2000.** Resident demand for amenities such as hiking and biking trails is much higher.

- 1. August 2004 Recreation and Park Department Recreation Assessment Report.** In their survey of the recreation needs of San Franciscan households, the Recreation and Park Department found that **San Franciscans have the greatest need for more hiking and biking trails.** Of 19 recreational activities, golf was ranked the 4th least important by residents.
- 2. January 12, 2006 Management Audit of the Recreation and Parks Department.** The 2006 audit confirmed that golf rounds played at Sharp Park had declined by 38%. The Audit stresses the need for renovations at Sharp Park to improve the "substandard" course.

3. **October 6, 2006, New York Times, *Vacation Homes: Seeking Birds, Not Birdies.*** Describes how natural amenities are preferred to golf courses in modern vacation developments.
4. **January 2007 National Golf Foundation Operational Review and Recommendations For City of San Francisco Golf Operations.** In its review of city-owned golf courses, NGF found that Sharp Park Golf Course was poorly maintained and badly in need of drainage system and facility renovations. **Sharp Park received poor grades in almost every category NGF measures.** The course's only significant draws were scenery and low cost.
5. **Comparison of regional golf course prices.** One of Sharp Park Golf Course's major draws is the course's low green fees. However, this price comparison of golf courses, public and private, in the Bay Area reveals that **there are many courses that are as affordable as Sharp Park**, including several in the South Bay.
6. **August 2008 San Francisco Recreational Opportunities Study Summary Report.** This study, conducted by Pros Consulting, gave recommendations for San Francisco's public golf courses. The study found that golf rounds played has been declining since 2000. **It notes that there is a 6 million round glut in the Bay Area golf market. The report states that Sharp Park is in disrepair and will require significant course improvements before it can be competitive in the contracting golf market.**
7. **March 22, 2010, New York Times, *The Tiger Bubble.*** This article describes how the golf market was overbuilt in anticipation of Tiger Woods bringing more players to the game. The anticipated growth never materialized because of competition from other recreational activities that also grew during the same time period, such as yoga and cycling. **The article concludes stating that the economic model for golf course development and tournaments is failing.**
8. **November 3, 2010, Office of the Controller, Park Maintenance Standards.** This report shows that the City's poorest neighborhoods in the southern and southeastern portions of the City have the lowest scores for park maintenance standards.
9. **December 4, 2010, Ann Arbor News, *Government's Role in Owning Golf Courses a Hot Topic as Industry Struggles.*** In this article golf developers question government golf subsidies, because the subsidies create unfair competition that puts better courses at risk and because golf is considered the least necessary government service during budget crises.
10. **2010 Neighborhood Parks Council Park User Survey.** The Neighborhood Parks Council surveyed 1,443 San Francisco residents in October and November of 2010, asking dozens of questions about San Francisco's parks. In one question, respondents were asked to list **three priorities for park funding. Of the nearly 100 different responses, sustainability came in 5th**, behind only general park maintenance, better athletic fields, more programming, and improved safety. In a second question, respondents were asked to list **three expenses they'd like to see cut. Of the over 80 different responses to this question, cutting golf expenses came in 5th**, behind only salaries and overtime pay, construction projects, regional attractions, and wasteful spending.

11. April 29, 2009, San Francisco Examiner, *Sharp Park Might Be Returned to Wetlands.*

In this article, the National Park Service expresses its interest in acquiring Sharp Park.

12. February 18, 2010, San Mateo County Times, *San Mateo Raises Fees for Poplar Creek Golf Course.* Poplar Creek, which recently went through a renovation and was cited by the Budget Analyst as a superior course to Sharp Park, is raising fees to cover the golf fund deficit in the City of San Mateo. **The San Mateo golf fund has been in the red since 2004, mostly since the number of rounds played declined by 9% since 2002 while cost have risen.**

Sharp Park Golf Course is No Longer a Historic Course

Supporters of Sharp Park Golf Course claim the course should be preserved because it was designed by Alister MacKenzie, a well-known golf architect. Alister MacKenzie's designs are famous for their complex strategy, and many are considered great courses, even if their designs do not always meet the modern demands of today's golf equipment. **However, evidence indicates that there is very little similarity between today's course and the original MacKenzie design.** Because of its proximity to the ocean, the course experienced massive flooding before it even opened for play. With the construction of the sea wall to protect the course, much of MacKenzie's original design was lost.

- 1. Joe Faulkner's History of San Francisco Golf Courses.** As a student at San Francisco State University, Faulkner documented the annual flooding that has plagued Sharp Park Golf Course since its opening day in 1932.
- 2. Excerpt from Missing Links: America's Greatest Lost Golf Courses & Holes by Daniel Wexler.** In his history of the country's lost golf courses, golf historian Daniel Wexler states there is little left of the original Alistair MacKenzie design at Sharp Park. According to Wexler, all but a handful of the original links have been altered or destroyed.
- 3. September 1, 2009 Letter from Philip Ginsburg to the City of Pacifica opposing the designation of Sharp Park Golf Course as Pacifica City Landmark.** This letter from the San Francisco Recreation and Park Department states that designating Sharp Park as a historic landmark would be counter-productive to restoration plans for the course.

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SHARP PARK ENDANGERED SPECIES BRIEFING MEMORANDUM

Introduction

Sharp Park has always been, and continues to be, home to two federally protected species: the endangered San Francisco Garter Snake and the threatened California red-legged frog.

With only an estimated 2,000 individuals remaining, the endangered San Francisco garter snake is the most imperiled serpent in North America. It is also one of the most beautiful, with striking black, red, and turquoise stripes and a burnt orange head. The snakes' optimal habitat includes fresh or fresh-brackish feeding ponds with adjacent uplands where the cold-blooded animal can bask in the sun and find shelter.

The threatened California red-legged frog—also known as Twain's Frog because it is the title character in Mark Twain's short story *The Celebrated Jumping Frog of Calaveras County*—has been lost from 70% of its historic range, and has suffered a 90% population decline: including extirpation from Calaveras County. It is the largest frog native to the West, and it breeds most successfully in habitats also preferred by the San Francisco garter snake: fresh to brackish ponds with ample shallow portions and dense vegetation. These two characteristics make the species an important food source for the San Francisco garter snake.

The fact that both the predator and its prey are in danger of extinction is an indication of the complex conservation problem at Sharp Park. Sharp Park contains a lagoon that provides adequate breeding and feeding habitat for both species. However, the golf course, which surrounds the lagoon, is ultimately a severe threat to these endangered creatures, inhibiting species recovery efforts. The natural upland habitats that once existed at Sharp Park have been replaced by the golf course's fairways and golf cart paths: snakes using the course as upland habitat are vulnerable to death and injury from lawn mowing and golf carts. California red-legged frog eggs and tadpoles are killed when the chronically flooded golf course is drained and the water pumped out to sea.

The best way to protect and restore the California red-legged frog and the San Francisco garter snake is to restore Sharp Park into a natural back barrier lagoon system.

This memorandum focuses on Sharp Park Golf Course's environmental problems, including its continuing negative impact on the threatened California red-legged frog and the endangered San Francisco garter snake. It will show that Sharp Park was optimal habitat for the frog and snake before construction of the golf course, and demonstrate that the best way to protect these species in the long run is to restore Laguna Salada and ensure that these incredible species are not subject to harm from golf activities.

Sharp Park was Prime Habitat for the Frog and Snake before the Golf Course was Built.

Supporters of Sharp Park Golf Course have argued that prior to the existence of the golf course, Laguna Salada was a saline, tidal lagoon that could not support populations of the California red-

legged frog and San Francisco garter snake. This is unequivocally false. Under natural conditions, Laguna Salada was a fresh to fresh-brackish back-barrier lagoon and was high-quality habitat that supported relatively large populations of the frog and snake. Sharp Park Golf course has degraded this preferable habitat and continues to harm these species.

- 1. Wade Fox's 1946-1950 Species Surveys at Sharp Park.** From 1946 to 1950 Wade Fox, a herpetologist and zoologist from UC Berkeley's Museum of Vertebrate Zoology, documented his findings of the San Francisco garter snake at Laguna Salada. **Shortly after the construction of the course, Fox found many San Francisco garter snakes near Laguna Salada:** more than would be expected if the population had migrated to the site after construction of the course. Moreover, the snakes he found were vibrantly colored, and considered the most pure population of the species. This indicates that there was an established population of the subspecies at Sharp Park before the golf course, as fifteen years is too short a time for the snake to have migrated onto the course if it was not there previously. **Wade Fox noted that he "found one dead snake, probably killed by golfers - they probably die frequently in this manner."**
- 2. September 1985 Recovery Plan for the San Francisco garter snake.** The U.S. Fish and Wildlife Service Endangered Species Program cites **the Sharp Park and Mori Point population of the San Francisco garter as one of the most valuable for preservation of the species.** This population is the most genetically intact of all remaining population. Because it exists at the northern-most extent of the subspecies' range, **it will likely be the best able to migrate in response to climate change.**
- 3. December 1992 Final Report for Endangered Species Permit for the California red-legged frog.** In his final report on the federally protected status of the California red-legged frog, **ecologist Todd Steiner concludes that pumping at the golf course is killing the frog. In one day, Steiner identified 63 egg masses that had been partially or completed desiccated because of pumping operations at the pond.** Photos show the desiccation of egg masses after the pond has been drained.
- 4. Swaim Biological Inc.'s 2005 Pacifica Garter Snake Survey.** In 2005, Swaim Biological Inc. prepared a species survey for the North Coast County Water District. **The survey found a total of seven individual San Francisco garter snakes in and around Sharp Park.** This indicates a significant drop in the populations of these snakes at Sharp Park since Wade Fox's survey 60 years ago.
- 5. February 1, 2005 U.S. Fish and Wildlife Initial ESA Enforcement Letter and Correspondence.** The U.S. Fish and Wildlife Service wrote to the Sharp Park Golf Course Manager regarding the take of California red-legged frogs though pumping from **2003 through that date, which was illegal under the Endangered Species Act.** The San Francisco Recreation and Parks Department response was to blame the situation on the watershed and seek subsidies from federal, state, and city governments for a bailout of the golf course.
- 6. 2006 U.S. Fish and Wildlife San Francisco garter snake 5-Year Review.** In their 2006 assessment of the San Francisco garter snake's recovery progress, the U.S. Fish and Wildlife Service concluded that recovery of the snake at Laguna Salada continues to face challenges. **The report documents a 2005 incident where a San Francisco garter snake was killed by a lawn mower on Sharp Park Golf Course, an illegal violation of the snakes' federally protected status. Photos of the snake show lacerations consistent with lawn**

mower blades. Ongoing harm resulting in the death or “take” of this species will result in civil penalties from \$12,000 to \$25,000 per incident. Fines can be assessed for unintentional violations.

7. **Laguna Salada – Historic and Current Conditions.** These two maps show that Laguna Salada was once much higher quality habitat for the California red-legged frog than it is today. Sharp Park once contained a back-barrier lagoon system that protected the lagoon from coastal intrusion except in the most extreme storm events. During these events, salt water intrusion would be balanced against freshwater rainfall and freshwater drainage that funneled from the large watershed into Laguna Salada, keeping salinity levels balanced and low enough for the frog to thrive. Moreover, because the golf course did not exist, there was a gradient of wetlands upland of Laguna Salada, each with higher freshwater content that the frog and snake could use through small-scale migrations until optimum conditions returned to the lagoon.
8. **February 2006 Natural Areas Program Management Plan for Sharp Park.** In 2006, the San Francisco Recreation and Park Department developed a management plan for Sharp Park. The plan states that there were historically high populations of the San Francisco garter snake at Sharp Park, based largely on Wade Fox’s survey data. The Recreation and Park Department acknowledges that the population of the snake has declined in recent years due to prey decline and destruction of habitat.
9. **2008 Swaim Biological Inc. Wildlife Survey of Sharp Park.** In their 2008 survey of the Sharp Park property, Swaim Biological Consultants found that Laguna Salada was poor habitat for the frog and snake in its current state. In particular, the report found egg masses in 2008 that had been stranded by pumping of Horse Stable, subjecting the eggs to desiccation and death. This is after the implementation of the management plan which prohibits by law pumping when egg masses are present on the pond. **Swaim reports that a cessation of pumping would improve the current breeding habitat for the frog,** which is currently very poor. In addition, Sharp Park Golf Course does not have the necessary permits to take red-legged frogs during golf course operations. **The report also acknowledges a lack of upland basking and shelter habitat for the San Francisco garter snake that is not vulnerable to mowing.** The survey found only two San Francisco garter snakes on the Sharp Park property, a marked decline in contrast to Wade Fox’s frequent sightings of the snake historically.
10. **Evidence of Take from Pumping Activities.** Several lines of evidence show that fish are being entrained during pumping activities at Sharp Park, suggesting that tadpoles and possibly adult frogs are likely being harmed by pumping as well. **In 2009, Swaim Biological Inc. concluded that it was likely that frog egg masses, tadpoles and perhaps adults could be entrained and pumped out to sea, which would constitute illegal take of the species. Swaim also found evidence of a crayfish that had been pumped out of the pond during draining.** Photos taken by the Wild Equity Institute show a stickleback fish that was pumped out to the beach during pumping.
11. **April 30, 2009 Letter from Bob Battalio to the San Francisco Board of Supervisors.** Civil engineer Bob Battalio explains that endangered species currently face a double danger at Sharp Park, from both the pumphouse and the threat of sea level rise. **Sea level rise will increase ocean flooding and erosion at Sharp Park, putting the fragile seaside Laguna Salada at risk if the lagoon is not restored and allowed to move landward as sea level rises.**

- 12. November 18, 2009 Sharp Park Conceptual Restoration Alternatives Report Technical Review and Comments by Peter Baye.** Baye argues that the plans to retain the golf course at Sharp Park will harm the frog and snake. **If golf is retained, it will increase salinity levels in Laguna Salada, squeeze the lagoon out of existence as sea level rises, and expose both species to high levels of toxic chemicals.**
- 13. August 2010 Letter from the U.S. Army Corps of Engineers to Tetra Tech.** Tetra Tech, a contractor for the San Francisco Recreation and Park Department, planned and carried out a dredging project at Horse Stable Pond. While the Army Corps of Engineers acknowledged in this letter that Tetra Tech did not need to receive a permit from them for this project, the letter asserts that Tetra Tech would have to obtain permits for any potential harm to threatened or endangered species. **Despite the possibility of harm to the frog and snake at Horse Stable Pond, Tetra Tech and Sharp Park Golf Course never got these permits, rendering the dredging project illegal under the Endangered Species Act.**
- 14. February 2011 Conceptual Ecosystem Restoration Plan and Feasibility Assessment.** This report provides the most thorough ecological assessment and restoration opportunity report to date on Sharp Park. Prepared by coastal engineer Bob Battalio of ESA/PWA, coastal ecologist Dr. Peter Baye, and herpetologist Dawn Reiss, **the report concludes that the most cost effective and sustainable alternative at Sharp Park is to implement an adaptive management plan for sea level rise and climate change while restoring upland habitats for endangered species.** These plans are consistent with recreation opportunities provided by the National Park Service at Mori Point.
- 15. February 2011 Wild Equity Institute investigation of desiccated egg mass at Sharp Park.** **On February 21, 2011, a local Pacifica resident informed the Wild Equity Institute that a presumed California red-legged frog egg mass was at risk of desiccation at Sharp Park.** The egg mass appeared to have been laid shortly after the previous week's winter storms inundated Sharp Park Golf Course. Wild Equity was informed that the egg mass was attached to aquatic vegetation near the surface of the water on the south side of Horse Stable Pond. **On February 23, 2011, Wild Equity Institute staff and supporters visited Mori Point and Sharp Park, along with an expert in herpetology. Wild Equity Institute staff quickly located the egg mass, and the expert confirmed that it was in fact a California red-legged frog egg mass. At that time the egg mass was completely exposed to the air. Pumping operations were still occurring.** On February 24, 2011, the Wild Equity Institute informed the U.S. Fish and Wildlife Service via e-mail and certified mail that a California red-legged frog egg mass had been exposed to the air by ongoing pumping operations at Sharp Park Golf Course, and requested that the agency take emergency action to save the egg mass. On March 1, 2011, Wild Equity Institute supporters returned to Sharp Park to determine if the egg mass had been saved. **Unfortunately, it had not: the egg mass was still located in the same area and appeared desiccated and partially frozen.**

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SHARP PARK CLIMATE CHANGE MEMORANDUM

Introduction

Sharp Park Golf Course's coastal location makes it vulnerable to climate change and sea level rise. As sea levels rise, San Francisco will be faced with two choices at Sharp Park. **One choice will be to keep the golf course at its current location and defend it with an armored sea wall. This will cause Sharp Park beach to erode away more rapidly; 200 to 300 feet of the beach have already been lost. A better choice is to implement an adaptive defense by allowing Sharp Park to be restored and using the restored wetlands as natural flood control.**

Sharp Park Golf Course was constructed on top of a wetland-lagoon. To create enough dry land at Sharp Park to build the course, the wetland complex was dredged and filled, leaving behind a smaller lagoon that remains at the center of the course today. The course is protected by an earthen sea wall that accelerates beach erosion and is vulnerable to overtopping during extreme storm events. The sea wall also prevents natural drainage of Laguna Salada to the sea, which causes the course to flood during annual winter rains.

The attached briefing book provides excerpts of reports, letters and plans documenting the threats to Sharp Park due to climate change and possible mechanisms to mitigate those threats. **This memorandum focuses on the two options for mitigating climate change impacts at Sharp Park**, as well as possible mechanisms for preventing future floods and erosion.

I. Impacts of the Golf Protection Plan

The San Francisco Parks and Recreation Department has evaluated several management alternatives at Sharp Park. However, most of these alternatives have focused on retaining a golf amenity at Sharp Park despite severe environmental and economic consequences. Most of these reports acknowledge the need for course improvements and an armored sea wall to protect against coastal flooding. However, the golf protection alternative largely fails to recognize that the necessary improvements to the sea wall protecting the course will be extremely expensive: between \$6 and \$32 million, according to various estimates. The sea wall will contribute to beach erosion, which has occurred at a rate of 1.5-5 ft/yr since construction of the golf course, and could accelerate to 2-6 ft/yr. As sea levels rise over the next century, even a heavily armored sea wall will leave the Sharp Park golf course and the surrounding Pacifica homes at Katrina-like risk of a massive flooding in the event of an extreme storm. The golf protection plan is also likely to increase long-term salinity in Laguna Salada, damaging the California red-legged frog and San Francisco garter snake's habitat.

- 1. November 1987 Feasibility Study: Restoration of Sharp Park Golf Course.** This report, commissioned by San Francisco, describes the frequent flooding and coastal erosion at Sharp Park Golf Course and provides photographs. **Sharp Park lost 16 acres of ocean front property to erosion between 1932 and 1987.** Geomatrix proposed significant

improvements to the protective seawall to prevent future ocean breaches, which cost \$5,700,000 in 1987.

2. **April 30, 2009 Letter from Bob Battalio to the San Francisco Board of Supervisors.** Civil engineer Bob Battalio estimates that it will **cost \$32 million to build an armored sea wall to protect the Sharp Park Golf Course.** An armored sea wall will likely result in beach erosion and will not help solve the issue of flooding on the golf course. Battalio recommends some degree of restoration of the original lagoon system at Sharp Park, which would allow natural regulation of flooding.
3. **Erosion and Flooding maps for Sharp Park, prepared by the Pacific Institute with Philip Williams Associates.** In the event of a severe ocean storm, the sea wall, Sharp Park Golf Course and several Pacifica homes will likely be inundated. With a sea level rise of 1.4 meters or more predicted over the next century, flooding will be even more frequent and severe. **Sharp Park's beach and sea wall will erode away unless something is done to prepare the area for the impacts of global warming.**
4. **November 18, 2009 Sharp Park Conceptual Restoration Alternatives Report Technical Review and Comments by Peter Baye.** Baye argues that the report disregards the impact of climate change on Sharp Park Golf Course. **Contrary to the report's recommendation, long-term maintenance of the sea wall would be expensive and infeasible, as a reinforced sea wall would accelerate beach erosion and eventually destroy the wall itself.** The report neglected opportunities for restoring Laguna Salada to act as a natural flood buffer, which Baye concludes is the cheapest and most sustainable method of preparing the Pacifica coast for climate change.
5. **December 17, 2009 ARUP Sharp Park Sea Wall Evaluation.** In 2009, The engineering consultancy firm ARUP did an assessment of the Sharp Park sea wall for the San Francisco Department of Public Works. ARUP found that significant portions of the wall were eroded and in poor condition. **Without repairs, ARUP concluded the sea wall at Sharp Park is extremely vulnerable to overtopping from sea level rise and severe storms.** To prevent this, the sea wall must be re-armored, which ARUP estimates will cost a minimum of \$6-7 million, not including the cost of final design plans and further research. The ARUP assessment differs from the Battalio estimate because it fails to take into account costs associated with beach erosion caused by the armored sea wall.
6. **December 21, 2009 Pacifica Climate Committee Comments on the Sharp Park Conceptual Restoration Alternatives Report.** The Pacifica Climate Committee is a group of Pacifica citizens concerned with the impacts of climate change on their community. **The group alleges that the Recreation and Parks Department's Alternative Report failed to address potential problems of climate change at Sharp Park.** They asked that the city refrain from basing its plan on the Alternatives Report because it does not address issues of climate change, and thus is an incomplete source of information for creating a long-term plan at the Sharp Park Golf Course.

II. A Resilient Model to Adapt to Climate Change is to Restore Sharp Park

A better solution for preparing for the impacts of climate change at Sharp Park is to restore Laguna Salada to its natural state. This will be less expensive than the cost of improving the course and armoring the sea wall. It will also provide flood control for Pacifica's homes, by absorbing excess from large waves caused by extreme storm events. The buffering ability of the restored wetland will also protect Pacifica's beaches in two ways: first, the lagoon will absorb the impacts of large waves, and second, the natural lagoon and beach system will be able to migrate upward as sea level rises, maintaining the width of the beach. Restoring Sharp Park is the most cost-effective and sustainable option for protecting Pacifica's beaches, homes and natural areas from climate change.

- 1. April 28, 2009 Letter from ecologist Terry Root supporting the restoration of Sharp Park.** Stanford University Woods Institute for the Environment Ecologist Terry Root describes the vital role that wetlands play in protecting California's coast. Root recommends that Laguna Salada be restored to a natural wetland system in order to protect Pacifica's coast from sea level rise due to climate change. Sharp Park could then become a model for coastal wetland restoration, climate change research and environmental education.
- 2. April 29, 2009 Letter from Coastal Ecologist Peter Baye to the Board of Supervisors.** Peter Baye, a coastal ecologist with over thirty years of experience, argues that accelerating sea level rise will exacerbate flooding and require improved sea wall maintenance at Sharp Park Golf Course. This will result in increasing costs for the city in the long-term. **For far less cost, Sharp Park could be converted back to a natural coastal lagoon, providing sustainable, effective protection for the Pacifica coast and increased tourism opportunities.**
- 3. November 15, 2009 Presentation by Bob Battalio on the Hydrology and Geomorphology of Laguna Salada.** Before the golf course was built, Laguna Salada naturally released flood water. Construction of the protective sea berm has retained winter rains, flooding Laguna Salada and the surrounding golf course. **Battalio recommends gradually removing parts of the sea wall to restore natural hydrology to the system and slow the erosion of Pacifica's beaches.**
- 4. Slides from EPA presentation Wetlands: Protecting Life and Property from Flooding.** This slide from an EPA presentation shows how wetlands absorb flood waters, reducing the peak flow rate and helping to prevent extreme flood events.