FROM POLLUTION TO PARKLAND:

ALTERNATIVES FOR A WATERFRONT PARK AT HUNTERS POINT SHIPYARD

MAY 2006

Arc Ecology • Coastal Conservancy • Literacy for Environmental Justice (LEJ) • Bayview-Hunters Point Community Advocates (BHPCA) • University of San Francisco • FarWest Environmental Restoration • Hargreaves Associates

The development of the Shipyard is one of the most important and far-reaching transformations Bayview-Hunters Point will experience over the next decade. The transfer of Navy property to the City will return 503 acres of waterfront land to community use. It is an opportunity to address long-standing environmental inequities. Some of the land on the Shipyard's southern shoreline has been set aside as open space, creating the possibility of a new Hunters Point Shipyard Waterfront Park.

What kind of park should it be?

background:

On Hunters Point Shipyard land that now stands polluted, there will soon be housing, shops, light industry, cultural facilities -- and potentially a waterfront park

Decisions about clean-up of the site will be made shortly and will influence the kind of park it can be and the job and business opportunities that the park could create.

The City's Shipyard Redevelopment Plan, adopted almost a decade ago, anticipated a 60-acre open space at the water's edge. The first phase of the Redevelopment Plan for residential development is now under construction. The next phase of the redevelopment is fast approaching, with many decisions to be made, including choices about the potential use of the open space as a waterfront park.

In collaboration with a cross-section of the Bayview-Hunters Point community, the Shipyard Waterfront Park Project ("Park Project") has raised some important questions about the kind of park that might be developed on the designated open space.

How can a Hunters Point Shipyard Waterfront Park

- **encourage thorough clean-up?**
- **provide jobs and business opportunities?**
- **catalyze the growth of a cultural district?**
- **create extensive wildlife habitat?**
- **serve visitors from the Bay Area and beyond in addition to the surrounding neighborhood?**
- **contribute to the transformation of the Bayview's image in San Francisco?**

To answer these questions, the Park Project has created four alternative park concepts.

District 10 Supervisor, Sophie Maxwell

Introduction by San Francisco Supervisor Sophie Maxwell

The parks along San Francisco's shoreline are very special places. I visit them when I come to play and to relax, to explore nature and to enjoy the company of friends and family. Views of the water and watching birds in flight are joys that connect me to a world bigger than daily affairs.

For people living near the city's waterfront parks, these opportunities are part of every day life. It is not a coincidence that San Francisco's most attractive and desirable neighborhoods adjoin the city's waterfront parks.

I am overjoyed that the Bayview-Hunters Point community will soon be able to experience the advantages of living near a waterfront park. Bayview-Hunters Point has long had the potential to become one of the city's most beautiful and productive neighborhoods. The key that will unlock that potential is a large waterfront park on the Shipyard.

A system of parks on the southeast waterfront can do for Bayview-Hunters Point what the parks on the northwestern waterfront do for their neighborhoods. Golden Gate Park, Lincoln Park, the Presidio and the Marina together provide a wide variety of recreational, cultural, and educational choices that draw visitors from all over the world as well as people who live down the street. These parks add value to their neighborhoods by enhancing property values, attracting businesses, and supporting lively shopping areas that offer employment and small business opportunities. There is a positive economic development impact and, in addition, the use of park and recreation programs help youth become involved in positive activities.

I strongly believe that a large park on the Shipyard that anchors a similar chain of parks along the southeast waterfront will be the magic that transforms the Shipyard into a cohesive new community and connects it to the larger revitalized Bayview-Hunters Point neighborhood. Imagine a park where current and new residents meet each other as they play basketball, linger over a cup of coffee, or enjoy a free concert. Children will work off surplus energy at a playground while their parents chat nearby. A wetland in the park will invite families who come for a picnic to explore Bay wildlife. A nearby nature center will deepen understanding of the natural environment.

The Shipyard Waterfront Park Project has performed an important service to the community by helping us visualize the kinds of park we need to achieve such transformation. The Project has developed a set of park concepts that bracket a wide range of possibilities. The smallest allows a narrow path along the shoreline. The largest accommodates sports fields, picnicking, large public events, shops and cafes, and cultural facilities. The added acreage allows a mix of uses along the boundary that mobilizes the park's ability to generate economic development that delivers jobs and business opportunities to the community.

To design these park concepts, the Project team carefully analyzed the opportunities and limitations of the site and shared this information with the community. To understand the kind of park the community wants, the team circulated a survey, held workshops, conducted interviews, and attended community meetings. The community's responses, combined with the site analysis provide the basis for the Shipyard Waterfront Park alternatives that are described in this book.

The book that follows graphically illustrates this and many other considerations that will go into the many decisions that produce the park. The book should be considered a tool that will help the people who will be making those decisions, including the Redevelopment Commission, the Navy, environmental regulators, and Lennar / BVHP Partners LLC (the Shipyard master developer).

I am most excited, however, about the support this book provides to members of the public who want a voice in planning a park that fulfills their dreams of many years for a safe place where they can enjoy the Bay. The alternative concepts show us the possibilities ranging from a modest park with equally modest returns to a large waterfront park that can meet a full spectrum of local needs.

Finally, the Shipyard Waterfront Park Project is a wonderful example of community organizations and public agencies working together. Organizations with long tenure in the community - Arc Ecology, assisted by Literacy for Environmental Justice and Bayview-Hunters Point Community Advocates - received generous support from the State Coastal Conservancy and cooperation from the Redevelopment Agency.

This book represents the efforts of many people. The ultimate prize for their success in working together will be a terrific waterfront park. I am pleased to be a part of the process.

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chapter 1: design issues

Arc Ecology created the Shipyard Waterfront Park Project in co-operation with the San Francisco Redevelopment Agency and supported by the State Coastal Conservancy. The purpose of the Project is to develop park concepts for the Shipyard's southern waterfront that illustrate a range of options for a park the community has wanted for decades. The concepts explore how a park can support wider efforts to address environmental justice concerns, contribute to job and economic development in the community, and deliver ecological and water-quality benefits.

In developing park concepts, the Park Project was requested by the San Francisco Redevelopment Agency to compare a park that would cap the Industrial Landfill with a park that would replace the Landfill with a water treatment wetland. The Project also considered whether alternative access roads to the Shipyard that are currently being studied by the City would have impacts on park potential.

The Project also considered parks of different sizes and shapes. The park program - what people can do in a park - depends on its size. The Shipyard Redevelopment Plan approved by the City has set aside 60 acres of open space in Parcel E. The Redevelopment Plan is shown here. A 60-acre park developed on this site would be too thin to accommodate diverse programming or habitat along its length. It runs along the shore edge and dead-ends into heavy industrial development at its southern tip. Beginning with the Redevelopment Agency plan, the Park Project has developed 4 concepts that demonstrate the benefits of a larger park.

The Shipyard Redevelopment Plan for the Shipyard allots 60 acres of open space that could host a park along the southern shoreline of Parcel E.

Shipyard Redevelopment Plan

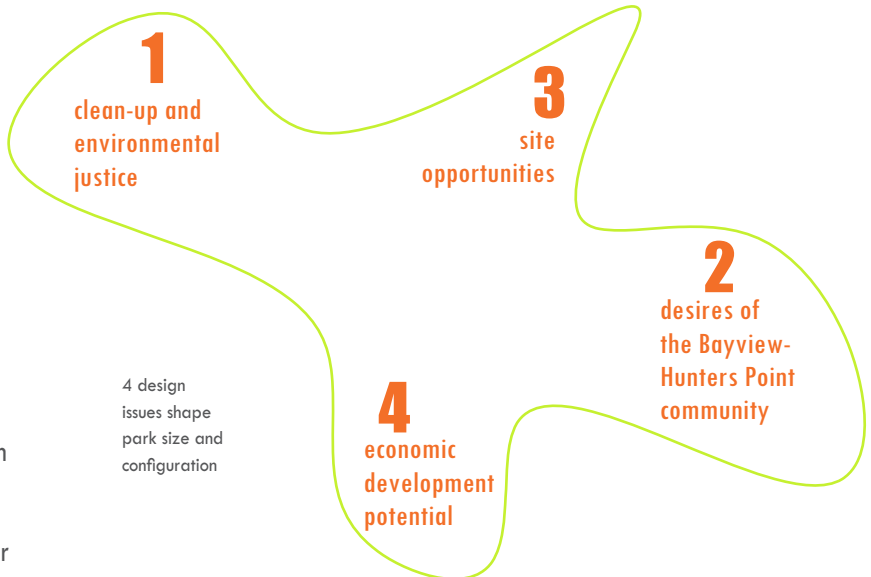
Four concept alternatives, developed by the Park Project, ranging in acreage from 60 acres to 167 acres. Option 1 is designed to fit the Shipyard Redevelopment Plan open space site in size and orientation along the shoreline. The other three schemes expand the border of the park to enable a greater diversity of programming.

Hargreaves Associates

The alternative concepts include larger parks

The park alternatives developed by the Park Project study the benefits of a park that has more depth to accommodate different programs, to buffer habitat from urban edges, to generate park-related commercial development opportunities, and to transform the site into a waterfront park that is a regional destination. The 167-acre alternative wraps the southern waterfront of the Shipyard and takes the re-gunning crane, an icon of the Shipyard, as a central maritime artifact framing a large festival space. For more detail on these schemes, see Chapter Nine: *Park Character*.

The question of park size and character is a matter of environmental justice. Environmental justice is not served merely by the clean-up of the contamination on site; it must also attend to broader questions of quality of life. Hunters Point has suffered more than its share of environmental abuses due to Navy operations and City zoning policies and has unserved needs for park facilities and programs. A park on Parcel E can meet basic open space needs. It is also an opportunity to offer diverse programming, display a unique history, and attract visitors from the Bay Area and beyond.



Each park concept represents a different blend of 4 design objectives

To understand the possibilities for a park on Parcel E, the Park Project analyzed four related issues: clean-up, park activities desired by the community, site opportunities, and economic development potential beyond park boundaries. These factors represent critical considerations in the design of any park on the Hunters Point Shipyard. This book looks closely at these factors.

chapter 2: overview

A waterfront park on Parcel E will provide new opportunities for the community to enjoy the Bay

Bayview-Hunters Point is a waterfront community. As the name suggests, it is a neighborhood with strong historical links to the San Francisco Bay. A half-century ago, the waterfront provided employment for the many African-Americans who came to work at the Hunters Point Naval Shipyard, built homes for their families nearby, fished, picnicked, and enjoyed living next to the San Francisco Bay.

Over time, connections to the Bay weakened. Shipyard operations have ended and the good jobs have disappeared. Restrictions on public access to the water, earlier imposed by military uses, may persist into the future because of pollution.

The Shipyard presents opportunities for environmental justice

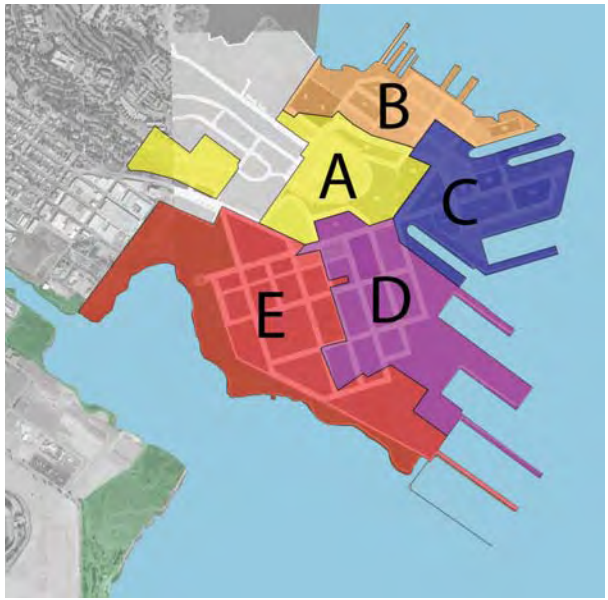
Today redevelopment of the Shipyard offers an unparalleled opportunity to address environmental justice issues that have cut the community off from the Bay. Plans for the future of the Shipyard are formalized in the Shipyard Redevelopment Plan, a

strategy approved by the City in 1997 for reuse of the 503 Shipyard acres, and part of more extensive efforts to revitalize Bayview-Hunters Point. The Shipyard Redevelopment Plan includes initial efforts to restore the community's relationship to the water, in part by setting aside bay shore open space.

At this time the Redevelopment Plan is silent about the character of the Parcel E open space. When the Plan was adopted almost a decade ago, the reuse potential of Parcel E was largely unknown. It was generally understood that the specifics would evolve as the role of Parcel E in overall Shipyard redevelopment became clearer.

The Plan is being implemented in phases that are largely dictated by the Navy's progress in cleaning up toxic waste. Phase One residential development has begun on most of Parcel A, the first parcel on the Shipyard that the US Environmental Protection Agency and the California Department of Toxic Substances Control have determined to be safe for housing. The park could be built on Parcel E – a highly contaminated section of the Shipyard where clean-up decisions have not yet been made. Because of the complexity of contamination and the degree of clean-up needed on Parcel E, it is one of the last parcels scheduled for development.

Even so, this is the ideal time for the community to explore a range of park possibilities. The park could be a major component of the Shipyard's infrastructure that needs to be planned early in the redevelopment process. The park could be a major factor shaping the character and feel of a reconstructed Shipyard, with strong links to the existing Bayview-Hunters Point community. In order for community members to be informed participants in all of these aspects of Shipyard redevelopment, they can explore the options and begin now to advocate their preferences.



Shipyard land was divided into Parcels A through E to expedite clean-up. The surrounding water is Parcel F.

A waterfront park would need to coordinate with nearby projects:

1. Hunter Point Waterfront Park
2. Candlestick Point State Recreation Area Yosemite Slough Restoration
3. Parcel A development
4. African Marketplace planning
5. India Basin Shoreline Park
6. Middle Point Street beautification
7. India Basin Industrial Park
8. Northern Gateway
9. 3rd Street Light Rail
10. Health Center
11. South Basin plan
12. Candlestick Stadium / Mall
13. Bay Trail Project

A Parcel E Park would be part of wider community revitalization efforts

Shipyard redevelopment is part of the renaissance occurring in the Bayview. Bayview-Hunters Point is currently the site of many projects intending to improve environmental and economic conditions there. The Third Street Light Rail will improve connections between Bayview-Hunters Point and the rest of San Francisco with attractive, environmentally sustainable transit. It will catalyze business development along the Third Street corridor. An African Marketplace will open at the Shipyard, providing public space for local vendors, entertainment events and civic social life. The planned Candlestick Point State Recreation Area restoration of nearby Yosemite Slough promises increased environmental health and habitat. New housing development on the Shipyard and elsewhere in the neighborhood will provide a mix of market and affordable homes for existing and new residents.

A Shipyard Waterfront Park on Parcel E would be part of this larger development context that will transform Bayview-Hunters Point over the next decade.

Lennar's master plan for the Shipyard, showing a 60-acre open space along the south shoreline of Parcel E

The Shipyard Redevelopment Plan is the starting point

The starting point for creating park concepts is the 1997 Shipyard Redevelopment Plan. The San Francisco Redevelopment Agency selected Lennar / BVHP Partners LLC (Lennar) to design a master plan based on the Redevelopment Plan for the entire Shipyard and negotiated an agreement for implementation of the first phase (limited by clean-up to much of Parcel A). The City and Lennar are now conferring on the next phase. Lennar's master plan combines ideas for market and affordable housing, an artists' community, job training programs, media arts center, new business opportunities and cultural centers with infrastructure improvements, including bicycle lanes,

lanes, transit services, parking facilities, and truck routes. The Lennar plan places industrial uses along much of the waterfront and adjacent to the open space along Parcel E.

A Redevelopment Agency brochure promises to make the Hunters Point Shipyard a regional attraction on a par with North Beach, Fort Mason, or Fisherman's Wharf. Each of these attractions relies heavily on large open space amenities; the same will be true for the Shipyard. It is critical that the community take an active role in planning the open space that can make the Shipyard redevelopment a comparable success.

The Shipyard Waterfront Park Project is about community involvement

The Shipyard Waterfront Park Project is a community-based process to visualize the potential contribution of a range of Parcel E park alternatives to Shipyard redevelopment. The Park Project begins with the expectation that the community will play an active, informed role in addressing the interrelated development issues as early in the planning process as possible.

This book documents the process the Park Project used to assist Bayview-Hunters Point community members in visualizing a park that will reconnect them to the Bay, provide open space for sports, gatherings, and the quiet enjoyment of nature, and also offer opportunities for new business development and employment. A key component of the Park Project has been facilitating an understanding of the clean-up needed to make such a park possible. It has combined the expertise of cutting-edge landscape architects and environmental engineers with the dreams and desires of a broad sample of community members. The result is a set of alternative park concepts that vary in their ability to integrate clean-up objectives, site conditions and opportunities, community views and opinions, and economic development potential.

Organizations involved in the Shipyard Waterfront Park Project

Arc Ecology (Arc) is a non-profit, public interest organization that integrates the sciences, economics, and community planning, with education and advocacy to help inform a public agenda. For the past two decades Arc has focused on the clean-up and redevelopment of military bases. To achieve its goal of an environmentally and economically sustainable, socially just society, Arc works to empower grassroots community stakeholders in public policy-making, to advance environmental and economic sustainability and justice by providing scientific, technical, economic planning, and political organizing support. Arc has assisted the Bayview-Hunters Point community to analyze issues and participate in public policy decisions for more than twenty years.

Literacy for Environmental Justice (LEJ) is an urban environmental education and youth empowerment organization founded in 1998 to address the unique ecological and social concerns of Bayview-Hunters Point, San Francisco, and the surrounding communities of Potrero Hill and Visitacion Valley.

LEJ engages urban youth in traditional environmental problems by drawing concrete linkages between the state of human health, the environment, and urban quality of life. The organization is based on the belief that recognition of these inter-relationships will encourage young people to become involved in the cause of creating a 'livable' city. Students leave LEJ with skills and a shared experience of positive and visible work.

Through this perspective LEJ staff members teach and/or employ young people to research, design and organize educational, neighborhood improvement projects. LEJ offers free educational programs for public schools and paid high school youth internship programs. LEJ works both in the public school system and in partnership with community-based and governmental organizations.

BVHP Community Advocates is a long-standing organization of community leaders with a dedication to environmental justice in Bayview-Hunters Point. It is the convener of the Yosemite Slough Watershed Council.

The Coastal Conservancy made the Shipyard Waterfront Park Project possible. This State agency partners with local governments and nonprofit organizations to increase public access to the San Francisco Bay shoreline as well as the coast, and to enhance sensitive coastal habitat, such as wetlands. The Conservancy has lead responsibility for completing the San Francisco Bay Trail, and restoring salt marsh acreage around the Bay. The Conservancy enthusiastically funded the Shipyard Waterfront Park Project because of its potential to improve public access to the Bay and to create recreational opportunities (and new wetland habitat) in a San Francisco neighborhood with great need for a waterfront park.

Hargreaves Associates is a landscape architecture, planning and urban design firm at the forefront of landscape architecture for over 20 years. The firm serves an international clientele, and its projects address a broad range of scales and types. The firm's position as a leader in multiple fields is reflected by over two dozen national awards from the American Society of Landscape Architects, numerous international awards, and publication throughout the world.

FarWest Engineering was founded in 1999 by Mr. Roger Leventhal and specializes in the design and construction of wetland and creek restoration projects throughout California. Mr. Leventhal has particular expertise and experience in the design and implementation of stormwater treatment using natural wetland systems.

Hargreaves' presentation at an Park Project Workshop

Literacy for Environmental Justice youth presentation at a meeting of the Yosemite Slough Watershed Council hosted by Bayview-Hunters Point Community Advocates

Coordination with other organizations

The Shipyard Waterfront Park Project has engaged key stakeholders and organizations, exchanging information and ideas with groups including the Shipyard Citizen's Advisory Committee (CAC), the Hunters Point Project Area Committee (PAC), the Shipyard Restoration Advisory Board (RAB), the Shipyard developer and their architects (Lennar and SMWM), the Mayor's Blue Greenway Task Force, Candlestick Point State Recreational Area, State Parks, and the State Parks Foundation.

The park alternatives conceptualized in this book reflect the views of a broad cross-section of Bayview-Hunters Point community members, stakeholder groups previously mentioned, governmental entities, and other stakeholder organizations, as informed and interpreted by the Park Project.

What happens next

This planning project is different from most since it does not select a preferred alternative for implementation. Instead the information and analysis of the strengths and weaknesses of each alternative will be available to inform both the community and the public agencies in determining the next phases of Shipyard redevelopment.

1991

NAVY CLOSES HUNTERS POINT SHIPYARD

1997

SHIPYARD REDEVELOPMENT PLAN DESIGNATES OPEN SPACE ON PARCEL E

TODAY

COMMUNITY PROCESS TO DEVELOP CONCEPTUAL ALTERNATIVES FOR PARCEL E WATERFRONT PARK

CITY MAKES DECISION ABOUT PARCEL E WATERFRONT PARK

CITY AND OTHER PUBLIC AGENCIES APPROVE DETAILED PLANS FOR PARCEL E WATERFRONT PARK

DEVELOPMENT OF PARCEL E WATERFRONT PARK

PARK OPENS

CHAPTER 3: A BRIEF SHIPYARD HISTORY

The context for development of a waterfront park on Parcel E is the rich history of the Shipyard and its relationship to the surrounding Bayview-Hunters Point community. A park serving the neighborhood would re-establish ties that were destroyed three decades ago when the Shipyard closed. A park that restores ruined habitat would celebrate the site's earliest use as a fishing ground.

hunters point community
history of diversity
the navy era
confronting pollution
the shipyard today

chapter 3: shipyard history

Hunters Point Shipyard and the Bayview-Hunters Point Community

For many San Franciscans, Bayview-Hunters Point is an industrial center, with power plants, sewage treatment facilities, port piers and cargo sheds, shipyards, and industrial parks filled with thousands of small to medium sized businesses. It is a place too many people know only from passing through on two of the city's freeways. It is known for violence, drugs, and crime: a place to leave before nightfall.

The real Bayview-Hunters Point is much more. It is a tight-knit community of families – many African American - who have lived there in homes they bought decades ago. It is a community that includes families who have arrived more recently. Most of all, it is a community with a rich history that will help to shape its future.

History of Diversity

Prior to the arrival of Europeans, the area encompassing the watershed of Yosemite Creek and Slough - specifically its lower catchment - was rich and ecologically diverse. The Slough's bay marshes themselves were nearly three times their current size. Historic data show that Native Americans frequently utilized the top of what came to be known

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photo: Mary Lou Lawless Mauer

photo: zpub.com

as Hunters Point Hill for hunting, fishing and camping. With the invasion of Europeans and later the United States, the Yosemite Creek and Slough Watershed came under assault.

Bayview-Hunters Point has always been one of San Francisco's most diverse communities. Butchertown was established during the 1850s when San Francisco began moving its slaughterhouses out of the center of the city to a site that had previously been used as grazing grounds for Mission Dolores. Now known as Hunters Point, the Butchertown slaughterhouses employed 3,500 workers. Irish, German, and Italian immigrants began to populate the Bayview. Chinese fishing villages sprouted along the edges of the Slough to take advantage of its natural resources and to comply with racist residential restrictions being imposed on the City's northern neighborhoods.

The name "Hunters Point" comes from the Hunters Family who built the first shipyard there in 1870 -- including

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photo: zpub.com

the first permanent dry dock on the west coast. The area became a center for ship-building. Private boat-building, repair, and cargo shipping, as well as shrimping industries developed, culminating in the purchase of the shipyard by Bethlehem Steel.

With shipbuilding and repair came port cargo activities and Portuguese, Latino, and other immigrant longshoremen. The Southern Pacific rail yards and stockyards around the Bayview and Mission May attracted African-Americans to the neighborhood. After the 1906 earthquake, many residents from other parts of San Francisco moved to Hunters Point, where land was available.

The Navy era

In 1939, the Navy purchased the shipyard and the African-American population began its growth, becoming the largest ethnic/racial group in the community. Shipbuilding and repair activities escalated after the declaration of

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war. Hunters Point was a particularly valuable port because it has one of the deepest harbors in San Francisco Bay. Production on the Shipyard peaked in the 1940s, when thousands of African-Americans were recruited from the South to work at Hunters Point.

During this period, six docks for submarines and three dry docks were in use. The Navy expanded its territory, both at Treasure Island, and in Hunters Point where many families living nearby were displaced and forced to relocate on short notice. The hillsides were cut down to create fill that expanded the Shipyard land into the Bay.

After the Second World War, in addition to ongoing shipbuilding and repair responsibilities, the Shipyard became a hub for the Navy's radiological research program. Coordinating with Lawrence Berkeley Laboratory (prior to the construction of Lawrence Livermore Laboratory and the Nevada Test Site), the Shipyard was used for on-site radiological experimentation and for the

Butchertown emerges when slaughterhouses are moved from the center of San francsico to Hunters Point, employing 3,500 people. Cows graze on Hunters Point Hill.

1850s

The first permanent drydock on the west coast is constructed at Hunters Point. The commercial industry is dominated by scow schooner shipping around the Bay Area. Shrimp fishing is another significant industry.

1867

Bethlehem steel purchases the Hunters Point drydock to support its shipbuilding business.

1910

Navy purchase

Navy purchases 47 acres of Hunters Point for $4 million.

1939

With 2 weeks notice, the Navy forces 86 families and 23 businesses to move for the expansion of shipyard facilities.

1942

Thousands of African-American families are recruited to relocate from the South to work at Hunters Point Shipyard.

1940s

Naval Radiological Defense Laboratory (NRDL) arranges for the decontamination of ships returning from nuclear weapons tests. NRDL studies nuclear weapons effects and the development of counter measures. Many buildings are used for radioactive laboratory operations, cyclotron operations, animal research studies, material storage, and processing .

1946

Navy begins first major lay-offs of local residents. Shipyard employment drops from 14,4000 to 8,500.

1950s

1974

Shipyard closes

Shipyard is placed in industrial reserve; the community experiences high unemployment.

1976

Hunters Point is leased to Triple A Machine Shop, Inc.

1980s

The "Point" artist community develops, one of largest artist communities in the U.S.

1986

Arc Ecology first exposes contamination at Shipyard.

1989

Hunters Point Shipyard acquires SuperFund status.

1990

The House Armed Services Committee Defense Authorization Report requires the Secretary of the Navy to lease 260 acres of the Shipyard to the City of San Francisco for not less than 30 years. This permits the City to execute a development plan for Hunters Point to bring employment and economic benefits to the area.

1994

Navy settles lawsuit brought by ArcEcology and Baykeeper charging 19,000 violations of the Clean Water Act. Evidence of the violations is in Navy's reports to the Environmental Protection Agency and the Regional Water Quality Board.

2000

Fires break out underground in the 20-acre landfill on parcel E, forcing Navy to cap part of the landfill.

today

The Shipyard has the potential to create jobs, housing, educational, and cultural facilities... and a park for the Bayview-Hunters Point community.

decontamination of radioactive contamination on ships returning from weapons tests. These activities were conducted by the National Radiological Defense Laboratory (NRDL), whose mission was to study the effects of nuclear weapons and to develop counter-measures.

A number of buildings on the Shipyard were used for radioactive laboratory operations, cyclotron operations, animal research studies, material storage, and processing by the NRDL. Waste from these activities was disposed of at a variety of sites, both on and off the Shipyard. Some radiological waste, such as dials and gauges painted with radium were put in a landfill along the southern shoreline near the Yosemite Slough. Prior to the 1970's, there were no requirements in place to regulate the safety of landfills. The Shipyard's Industrial Landfill was constructed with a minor grass cap and without a liner, allowing dangerous materials to be in contact with the air and water of the surrounding neighborhood.

Between the end of the Second World War and Vietnam, the Navy continued to use the Shipyard for submarine testing and repair as well as the repair of larger vessels, including nuclear-powered cruisers and aircraft carriers, such as the USS Enterprise, then homeported in Alameda. Navy operations continued in Hunters Point until 1974, when the Shipyard was closed and placed in industrial reserve. *I*t continued Naval nuclear ship repair for another 17 years. It was leased in 1976 to Triple A, a private ship repair company. A decade later the San Francisco District Attorney's Office, the FBI, and the EPA would raid and close Triple A's operations at the Shipyard for the illegal disposal of additional toxic wastes on-site.

In 1986, the Shipyard returned to active status, but in 1988, the Base Realignment & Closure Commission cancelled its proposed homeport, and in 1991 ordered its complete closure. Naval nuclear ship repair at Hunters Point officially ended in the fall of 1991.In 2000, the Navy and the City concluded a Memorandum of Agreement of general principles for the base's handover, and in 2003, a Conveyance Agreement to manage the transfer of property was approved. In April 2005 much of the Shipyard's Parcel A, was transferred to San Francisco.

Since the zenith of its employment in the immediate aftermath of the Second World War, the Navy had steadily cut the Shipyard's civilian workforce. Massive cuts in the job roles in the 1950's and '60's helped create the economic dislocation that fomented the 1966 Bayview riot. By the time the Shipyard closed in 1974, the Navy employed fewer than 4,000 civilians. Even so, the draw down of these jobs and Shipyard closure contributed substantially to the high unemployment in Bayview-Hunters Point, which reached 48% among African American men and 51% among African American women.

Confronting pollution

Environmental clean-up investigation and response at the Shipyard began in the 1970's. In 1975, the Navy conducted the first of two major radiological investigations of the NRDL building site. In 1983 the Navy issued a confidential Initial Assessment of Shipyard pollution showing widespread significant contamination across the entire base. In 1986, the Congress passed the Superfund Act Reauthorization Amendments (SARA) that incorporated polluted military sites into a Superfund-equivalent program under joint military-US Environmental Protection Agency supervision. The combination of the data in the 1983 Initial Assessment, the 1986 raid of the Triple A Shipyard, and community input facilitated by Arc Ecology (among others) led to National Priority List (Federal Facility Superfund) status for the Shipyard in 1989.

The Shipyard today

During the 1970's, studio space in the Shipyard was leased to artists. Abandoned and neglected buildings eventually became studios for three hundred artists. "The Point" remains one of the largest artist communities in the United States, offering open studio exhibits twice a year.

In 1991, then-Mayor Art Agnos established the Hunters Point Shipyard Citizens Advisory Committee (CAC) to advise the Mayor and Redevelopment Agency on the facility's reuse. This blue ribbon panel continues to meet on the second Monday of the month.

The Redevelopment Agency created the Hunters Point Project Area Committee (PAC) in 1994, as a separate vehicle for citizen participation in redevelopment planning for the larger, neighborhood-wide Bayview Hunters Point Project Area.

Today Bayview-Hunters Point is a community at a crossroads. With redevelopment occurring both at the Shipyard and in the neighborhood, the Third Street Light Rail route that will soon begin operations, and park planning along the waterfront from China Basin Shoreline Park to Candlestick Point State Recreation Area, current residents have more options open to them than at any recent time in history. The challenge facing both residents and City officials is to ensure that the community benefits from its own history. A long-desired waterfront park is one of the many benefits that Shipyard redevelopment could potentially deliver.

CHAPTER 4: CLEAN-UP + ENVIRONMENTAL JUSTICE

A park cannot be developed on Parcel E until toxic waste on the site has been cleaned up. A thorough clean-up, consistent with environmental justice principles, would make it possible to replace toxic waste on the site with a stormwater treatment wetland.

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Clean-up is an opportunity for environmental justice

Clean-up of toxic waste is the critical first task on the path to Parcel E park development. The Industrial Landfill, in the northwest corner of Parcel E is a particularly urgent community concern, due to its high concentration of toxic wastes and their potential impacts on community health and the environment. Polluted areas surrounding the Industrial Landfill amplify the concerns. Parcel E is the most polluted portion of the Shipyard, which is in turn the most polluted property in Bayview-Hunters Point and San Francisco. Clean-up of the Industrial Landfill is one important step in freeing the Bayview-Hunters Point community from the burdens of living in a severely compromised environment.

Clean-up of the Industrial Landfill will be determined by Superfund procedures, which apply to all sites in the Shipyard. The Navy, US Environmental Protection Agency, and California Department of Toxic Substances Control will select contamination remedies, with input from the City and public. Existing federal and local policies on environmental justice and community acceptance of clean-up remedies will inform their decisions, as well as the approved Shipyard Reuse Plan.

Hunters Point is home to hundreds of toxic waste sites.

source: South East Alliance for Environmental Justice (SAEJ) / San Francisco Department of Health/ USEPA Toxics Release Inventory

Crissy Field, Horizontal Associates

There are three basic clean-up options for the Landfill:

1. allow the contaminants to remain in place and cover them with an impermeable clay cap,
2. remove the hot spots and cap the entire site, or
3. excavate the toxic wastes.

The option that is ultimately selected will have a profound and lasting effect on the long-term environmental quality of any park that may be developed on Parcel E. It will determine whether exposure to the toxic wastes in the Industrial Landfill continues to be a risk.

Federal and City environmental justice mandates

Environmental Justice principles evolved to confront the kinds of environmental problems that confront Bayview-Hunters Point– a low-income community of color that bears a disproportionate share of San Francisco's environmental challenges. In addition to Shipyard contamination, other polluting industrial operations are concentrated in the neighborhood. The wording of President Clinton's Executive Order on Environmental Justice speaks directly to this inequity: "No group of people should shoulder a disproportionate share of negative environmental impacts."

Excavation of the Landfill can be considered an environmental justice priority since it would relieve some of the disproportionate pollution burden that the Bayview-Hunters Point residents currently bear. Furthermore, excavation would enable creation of a wetland that would abate pollution by filtering potentially contaminated runoff before it flows into the Bay - a matter of environmental justice for the people who now eat tainted fish caught from the receiving waters.

Federal environmental justice principles are brought into focus by local policies that apply directly to Shipyard clean-up. In 2000, San Francisco voters overwhelmingly approved Proposition P, a Policy Declaration calling for thorough environmental clean-up of the Shipyard that would preclude restrictions on future uses. In response, the San Francisco Board of Supervisors approved an implementing resolution that opposes clean-up strategies that would "rely on future owners to maintain barriers to protect future occupants and the public from exposure to pollution left by the Navy, unless other remedies are technically infeasible." Since a cap would indeed require on-going maintenance, this policy calls for serious investigation of an excavation remedy.

An aerial photo of Parcel E showing toxic sites.

source: Naval Facilities Engineering Command Parcel E Feasibility Study

Clean-up is a prerequisite

Fifteen years have passed since the Navy ended industrial operations at Hunters Point Shipyard. Left behind is a continuing legacy of chemical waste and pockets of low-level radiation. In 1989, the Environmental Protection Agency added the Hunters Point Shipyard to the National Priorities List (known as Superfund), and two years later the Federal Government officially decided to close the facility. To manage the clean-up of the facility and to expedite transfer of the property, the Navy divided the Shipyard into Parcels A through F (see pg. 7).

So far, the only area of the Shipyard considered by regulatory agencies to be clean enough for conveyance to the City is in Parcel A, where construction of housing is now underway. Parcels E and F are expected to be the

last areas to be conveyed to the City by the Navy, due primarily to contamination. There are good reasons, however, why the community, the City, and Lennar need to decide on the reuse of Parcel E as they plan for Parcels B, C, and D. The clean-up and future use of Parcel E – including its development as a park site – can potentially reinforce and leverage development possibilities on the parcels that transfer earlier. What eventually happens on Parcel E can also contribute to the success of Parcel A residential development.

Parcel E clean-up

The 1997 Shipyard Redevelopment Plan designates almost two thirds of Parcel E for industrial uses (including maritime industrial) and research and development (see pg. 3). Sixty acres are set aside as open space. But Parcel E will have to undergo extensive clean-up before any uses can be developed. Contaminants on Parcel E include solvents, metals, petroleum products, PCBs, and radium with low-level radioactive wastes. These contaminants are associated with cancer, liver disease, asthma, neurological problems, and many other health problems, causing great concern among people who live nearby.

Some clean-up is already underway. The Navy is conducting a PCB clean-up demonstration project on Parcel E's western shoreline in conjunction with Stanford University. An 18-acre radiological landfill on Parcel E has undergone radiological decontamination, and the scrap area on the eastern beach has been removed.

The Industrial Landfill on Parcel E

Within Parcel E, the most concentrated pollution occurs in the 20-acre Industrial Landfill in the widest portion of the designated open space. It was used as a dump for the industrial by-products of Shipyard operations during Navy ownership. The total contents of the Industrial Landfill have not yet been assessed; however, the site is known to harbor domestic refuse, sand-blast waste, construction wastes, low-level radioactive debris, paint sludge, solvents and waste oils. These materials are contaminated with heavy metals, PCBs, pesticides, volatile and semi-volatile organic compounds, petroleum hydrocarbons, chlorine gas, and low-level radioactive wastes.

Landfill fire increased community awareness

The health and safety risks posed by the Industrial Landfill became palpable in 2000 when it caught fire. The 600,000 gallons of water sprayed on the site were ineffective in dousing the flames below ground and compounded existing problems by spreading the contamination more widely.

photo credit: Maurice Campbell

Fires erupted spontaneously in 2000 and continued below ground on Parcel E until the Navy constructed a partial landfill cap.

photo credit: Maurice Campbell

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After many months, the Navy extinguished the flames by placing a clay cap over about 80% of the site. Despite this temporary "solution", the Landfill continues to vent methane gas, creating an ongoing fire and health hazard. Members of the community have raised the concern that the weight of the cap may be causing underground gases to migrate to its perimeter, where more than a dozen grass fires have occurred. Although a definitive cause of the fire has still not been determined, a possibility is the spontaneous combustion of an underground mix of volatile chlorine gas and wood chips.

The Superfund clean-up process

Before Parcel E can be redeveloped, the Landfill must be made safe. Over the past several years, the Navy has made some efforts to manage the contamination and to reduce its environmental impact. These management activities have included removal of 4,000 cubic yards of sand-blast waste, construction of a wall 600 feet long made of metal panels intended to intercept the flow of contaminated groundwater into the Bay, and construction of a system to collect and clean gasses emanating from the Landfill. The partial cap, constructed in 2001 to stop the spread of internal fires, has also reduced runoff flowing into the Landfill and therefore less groundwater is being discharged into the Bay.

During the next phase of the Superfund clean-up process, the Navy will spend two years determining the goals, objectives, and methods that can be employed to address the contamination of Parcel E, including the Industrial Landfill. In June 2006, the Navy expects to release a Feasibility Study, the first report in this phase that will analyze clean-up options for the Landfill.

It is expected that the Feasibility Study will investigate three remedies: one option is to leave the contaminated materials in the ground and extend the existing partial cap to cover them fully; a variation of this option is to remove concentrations of toxic materials (called hot spots) selectively; the third option is to excavate the contaminated materials, which would make it possible to create a stormwater treatment wetland. It is clear, even before the Feasibility Study is issued, that a painless solution to the problems caused by massive releases of toxic wastes into the environment does not exist. Even though the disadvantages of capping are longer lasting and more serious from a community perspective, excavation also poses major challenges.

The pros and cons of capping the Industrial Landfill

It may appear that extension of the partial cap would be the fastest and most inexpensive remedy, at least initially. The contamination remaining on site would be capped with an impermeable clay cap and buried under several feet of clean fill.

Caps are used to provide a physical barrier to human and environmental exposure to toxic and hazardous contamination without incurring the expense of digging out and hauling off the materials that are the pollution source. *In some situations*, capping can be a good strategy for conserving the limited space available at toxic waste repositories that are much in demand. A cap may be sufficient to prevent exposure while nature takes its course in breaking down certain waste materials into harmless substances.

However, conditions at the Industrial Landfill do not fit this scenario, based on the particular contaminants involved, their potential for on-going release into the environment, and City policies about what constitutes an acceptable clean-up. Many members of the community do not consider capping to be clean-up at all since it would not reduce pollution sources, neither removing nor treating them. Their concerns are that:

- Capping would only construct a barrier to the same flammable materials that caught fire five years ago, which could reignite in the future.
- Contaminants would continue to be discharged into the Bay since the Industrial Landfill is not lined and toxic materials are in direct contact with the soil and groundwater.
- An earthquake could cause the cap to be breached.

The durability of a cap on the Industrial Landfill is also an issue. Research by the US Environmental Protection Agency indicates that caps regularly fail before meeting their designated lifespan. Heating and cooling, the natural shifting of ground, the settling of the caps, and burrowing animals and insects are just some of the threats that undermine long term viability. These potential problems are why the US Environmental Protection Agency generally opposes capping landfills near bodies of water and in seismically active areas. Good maintenance and constant monitoring of the cap would be needed to prevent natural degradation of the cap over time.

The belief that a cap is necessarily the less expensive option is typically based on the assumption that someone else will be responsible for these continuing maintenance costs. Capping would save money for the Navy to the extent they can pass on long term operational and maintenance costs to others. The corollary of Navy savings is greater expense for the City and new owners who would assume these costs. For this reason, Resolution 643-01 of the San Francisco Board of Supervisors urges "the Navy to clean-up the Shipyard in a manner that is fully protective of public health and the environment, and does not rely on future owners to maintain barriers to protect future occupants and the public from exposure to pollution left by the Navy, unless other remedies are technically infeasible."

landfill clean-up options:

cap:

\+ CHEAPER INITIALLY

\+ FASTER

\- CAP MUST BE PROTECTED BY PAVING OR TURF

\- NO TREES OR OTHER PLANTS WITH DEEP ROOTS THAT WOULD BREACH THE CAP

\- SHORT-TERM SOLUTION ONLY (DEGRADATION OF CAP IS INEVITABLE)

\- CONTINUING RISK OF EXPOSURE TO HAZARDOUS TOXICS SINCE CAPPING DOES NOT LESSEN TOXICITY, MOBILITY, OR VOLUME OF CONTAMINANTS

\- REQUIRES CAP MAINTENANCE FOR INDEFINITE FUTURE

\- DOES NOT LIMIT HORIZONTAL MOVEMENT OF GROUNDWATER OR TOXICS (CONTINUING RELEASE OF POLLUTANTS INTO THE BAY)

\- POTENTIAL FOR CRACKING OF CAP PARTICULARLY HAZARDOUS IN AN EARTHQUAKE

remove waste:

\+ MOST DEPENDABLE PREVENTION OF EXPOSURE OF COMMUNITY TO HEALTH HAZARDS

\+ REMOVES SOURCES OF ON-GOING POLLUTION OF THE BAY

\+ REMOVES SOURCE OF LANDFILL FIRES

\+ ENABLES CONSTRUCTION OF STORMWATER TREATMENT WETLAND THAT WILL CREATE WILDLIFE HABITAT AND IMPROVE BAY WATER QUALITY

\- EXCAVATION WILL DISTURB CONTAMINATED SOIL AND REQUIRE DUST CONTROL MEASURES

\- CONTAMINATED SOIL WILL HAVE TO BE TRANSPORTED ON BAYVIEW STREETS (LIKE TRANSPORT OF TOXIC WASTES NOW OCCURRING DAILY FROM NAVY CLEAN-UP ACTIVITIES ELSEWHERE ON THE SHIPYARD).

\- CONTAMINATED SOIL WILL HAVE TO BE DISPOSED OF IN A REGULATED LANDFILL ELSEWHERE

Crissy Field, Hargreaves Associates

An additional disadvantage of capping is the stigma the underlying pollution could have on surrounding development. Some potential visitors might be discouraged from using a park built on top of a site permanently retaining toxic materials. It could also depress the value of the homes built on the southern slopes of Parcel A. It is likely that Parcel A residential deeds and leases would be required to provide notice of potentially hazardous conditions nearby, and signs would need to be placed around the property warning people not to disturb the cap or allow their pets to dig within its confines.

Finally, capping would fail to meet the environmental justice requirement of reducing disproportionate impacts of pollution. Although capping could reduce the immediate threat of exposure, and might even reduce it over time, due to the lack of a liner it would not halt the flow of toxic pollution into South Basin, leaving Bayview-Hunters Point with this toxic burden in perpetuity. Since the cap would be permanently subject to possible failure, the community would have to live with a continuing possibility of more drastic releases of toxic materials. Furthermore, capping will require restrictions for future land-use that will continue to disadvantage Bayview-Hunters Point.

The pros and cons of excavation

The alternative to sequestering contamination on-site under a cap is removal of all the contents, or an amount sufficient to avert restrictions on reuse. The excavated contents of the Landfill would be shipped to a licensed hazardous waste repository. The environmental and health advantages of this approach avoid the disadvantages of capping and are strongly appreciated in Bayview-Hunters Point. It would eliminate the threat of new exposures in a catastrophic event like an earthquake. Excavation would increase the surrounding land values, possibly reduce homeowner insurance costs, and would remove the restrictions on the future uses of the Industrial Landfill. Removal of the landfill would eliminate continuing cap maintenance costs to San Francisco or to whomever is ultimately made responsible.

There are disadvantages to excavation that also must be considered: high initial cost, foul smells (the material buried within the landfill is rotting, and so unearthing it will be smelly process, which could temporarily affect surrounding residents) and possible health hazards for the workers involved. Excavation could also release some of the same gasses and potential for fire or small explosion that occurred in 2000. Given that it is always difficult to thoroughly assess the contents of a landfill, great care would need to be exercised with the removal, which would increase costs.

Parcel E compared to the restored Crissy Field in the Presidio. They both have a history as decommissioned military landfills full of industrial wastes. The Presidio was cleaned up and turned into a regional amenity. Parcel E has the same potential. It also has the potential, if it is not thoroughly remediated, to continue to blight the neighborhood and impact the new Shipyard development.

Capping or excavation? Three decision factors:

At least three very important factors will guide the Navy and regulatory agencies, along with input from the City, master developer Lennar Homes, and the community, in their selection of a clean-up solution for the Industrial Landfill: environmental justice, community acceptance of the remedy, and plans for the future use of the site.

One: Environmental Justice

At their core, environmental justice principles are about parity; they address the disparate impacts of race and income on American society. The US Environmental Protection Agency defines environmental justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Aside from the obvious pollution found at the Shipyard, environment justice principles have broad applicability to Bayview-Hunters Point because residents are exposed to hundreds of other sources of environmental pollution on a daily basis. The neighborhood is bounded by a federal Superfund site (the Shipyard) to the east; the Hunters Point Power Plant to the north (officially closed on May

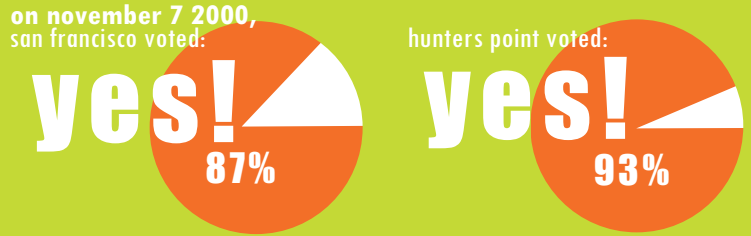
15, 2006); and heavily trafficked freeways to the west and south that contribute substantially to poor air quality. Residential and industrial activities exist side by side. PCB's and heavy metals contaminate the sediments of both South and India Basins that border the neighborhood, which suffers very high rates of hospital admissions for environmentally linked ailments.

Two: Proposition P is San Francisco's community acceptance criteria for clean-up

In November 2000, 87% of San Francisco voters – including 93% in Bayview-Hunters Point - sent a strong message to the Navy when they supported Proposition P, a ballot measure urging that Shipyard clean-up achieve the highest possible standard. Proposition P was then formally adopted as City policy through passage of Board Resolution 643-01, introduced by Supervisor Sophie Maxwell and then-Supervisor, now Mayor Gavin Newsom. These standards have also been incorporated into the Agreement between the City and the Navy on the conveyance of Shipyard properties.

The Resolution clarifies that Proposition P is the official Community Acceptance Criterion that the Navy must consider when selecting clean-up remedies for the Shipyard. Community acceptance is one of nine criteria identified in the federal environmental law that establishes a framework for evaluating and selecting a Superfund remedy. Like the criterion of cost, the community acceptance is a concern that is not decisive, but must be taken into account.

Proposition P marked a turning point in defining the community acceptance criterion for Shipyard clean-up. Before the Parcel E fire, Navy representatives asserted that Bayview-Hunters Point residents would find any level of clean-up acceptable that allowed people to work on the Shipyard. Proposition P and the follow-up Resolution provide a more accurate reading of community standards. As a result, the Navy is obliged to ask which solution would provide the greatest practicable degree of protection. Although the Navy could select a remedy that does not meet this standard, they would have to demonstrate that over-all benefits of the solution they select far outweigh those of a remedy that would be acceptable to the community.



Proposition P:

It shall be City policy to support a full clean-up by the Navy of the Hunters Point Shipyard, to allow unrestricted use of the entire site in the future.

Three: Plans for reuse should determine clean-up levels

A long-standing principle of base closure clean-up is that reuse objectives should drive clean-up standards. Nearly all of the decisions on clean-up of Parcel E will be made over the next two years. The Redevelopment Plan currently provides little guidance, since it describes the use of Parcel E open space only in very general terms.

Until the Bayview-Hunters Point community and other stakeholders develop more specific plans for reuse, the Navy will retain discretion over clean-up decisions that, in effect, would allow them to pre-empt, or at least circumscribe, redevelopment choices. This policy is a key reason why the Park Project is presenting a range of conceptual alternatives for a Parcel E park for consideration at this time.