



The Mission Creek Watershed: From Prehistory to Postmodernity

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“There should be a place for community utopias; for historic, natural, and anthropological evocations of the modern city, for encounters with the truly exotic.”

-Allan Jacobs and Donald Appleyard

Introduction

The Mission Creek watershed is a key feature in the history of San Francisco. Since early days it provided habitat and fresh water to native wildlife and peoples, later it supported settlers, agriculture and livestock. Like many other watersheds in present-day metropolises – including the Los Angeles River, Tennessee Hollow in the Presidio, and Mission Creek of Fremont in the East Bay – San Francisco’s Mission Creek was subjected to significant alterations. The effects of settlement bear directly on local drainage and hydrology (DelVecchio 2004, March 1998), as well as the health of waterways and their ability to support life (Lee and Roth, 2001).

During previous decades, development prac-

tices destroyed the natural landscape of Mission Creek watershed. Natural systems were compromised in order to accommodate human ones: urban housing, roadways, transportation, commercial and industrial activities. This paper explores the watershed’s gradual transformation, and documents development plans – currently in various phases of implementation – in the region’s former delta.

The urbanization of a watershed

Mission Creek originated in the eastern foothills of Twin Peaks, at a small waterfall feeding a willow-lined pond (Sward, 1998). On its winding course eastward towards the Bay, it formed the backbone to a variety of habitats, most notably the wetlands

and marshes in a delta adjoining Mission Bay. Over the centuries, and especially since the Industrial era, this watershed has experienced increasing levels of exploitation and alteration. The stream and wetlands have been filled in through succeeding phases of San Francisco's urban development. Mission Bay itself, once a naturally occurring cove, has reduced to a short, narrow channel.

The stream figured significantly in the lives of the native Ohlone Indians, who inhabited the Bay Area before becoming displaced and eventually decimated by European settlement. Mission Creek functioned as a major inland transportation corridor, which the Ohlone navigated in tule reed balsas (Hart 2006). The current location of the Mission Creek Mosaic Mural, at Harrison and 16th Streets, is said to be a historic Ohlone streamside landing ground (Hart 2006). The Creek provided habitat and fresh

water to both native wildlife and peoples. Recognizing it as a key resource, Spanish missionaries of the 18th century established Mission Dolores, part of which survives today, near the western headwaters of the creek (Hart, 2006).

Through the pre-Columbian to Mercantile and Industrial periods, this quadrant of San Francisco served as an important shipping and distribution center. Western settlers, in practical imitation of the Ohlone, used skiffs on the stream to transport goods and people as far inland as Mission Dolores (Hart 2006, Sharpsteen 1941, Sward 1998). During the Mercantile and early Industrial eras, Mission Bay (also known as "China Basin") was lined with docks for lumber schooners and hay scows (Zane, 1992).

Industrialization of San Francisco had manifold effects on the watershed, transforming it unrec-

Harrison and 16th Streets

Former streamside landing ground of the Ohlone Indians. The Mission Creek Mosaic Mural, on the brick building on the right, was created by Lillian Sizemore and Laurel True to commemorate the former Mission Creek streambed (also pictured on the report cover). Beyond the buildings, the former path of the railway and streambed veers off the street in a northeasterly direction (Ocubillo 2006).



ognizably. As neighborhoods developed upstream, the creek and its tributaries were paved over, fragmented and grafted onto man-made stormwater drainage systems (Sward, 1998). Downstream, manufacturing plants were located on the banks, where the water was used for cooling and powering industrial equipment. The stream also served as a convenient sewer for industrial effluent.

The legacy of industrial society's burden upon river systems manifests itself in a variety of problems, which city governments are now challenged with correcting. These problems include storm water management, flooding, and effective sewage treatment.

Until the late 1980s, San Francisco funneled both domestic sewage and storm water runoff to the same treatment plants (Ostler, 2000). As a result, Mission Creek itself became a sewer, with raw sewage overflows becoming even more acute during and after heavy rainstorms (Adams, 2003). Houseboat residents in the Mission Creek Marina, with characteristic good humor, called their neighborhood "Sh*t Creek" (Adams, 2003), and recall that methane gas bubbles, dead rats, and large gobs of black fungus were regular features of the waterscape (Ostler, 2000).

The city has invested in considerable infrastructure reconfigurations to mitigate the toxic conditions at Mission Creek Marina. According to Michael Carlin, planning director of the Public Utilities Commission, "We now treat all storm water that comes through the sewer" (Adams, 2003, p. A27). In 2002, the city completed a storm water pump station at Mission Bay that separates storm water from the sewage flow (SFRA, 2006).

The geography of Mission Bay was altered considerably during the Industrial era. Most of the

marshes and Bay were filled-in to provide land for warehouses and rail yards. Santa Fe Railway owned the site, and took advantage of the even grade provided by the streambed. The San Jose and San Francisco rail line tracks were laid over the paved waterway (Hart 2006). By the 1940s, the waterway west of Seventh Street had been paved over completely (King 2004).

To this day, the infrastructure of the district contrasts sharply with neighboring areas. Portrero Hill (to the south) and South of Market (to the northwest) have a relatively fine-grained street fabric, whereas Mission Bay became one huge parcel, comprised of broad roadways and rail right-of-ways. The landscape has been characterized by massive transit infrastructure – railways in historical times, and freeways in recent times - that cut paths through the orderly street grids of neighboring areas.

Post-industrial challenges

Like many cities in developed nations, San Francisco experienced rapid de-industrialization in the latter 20th century. As manufacturing activities were exported to countries with cheaper, exploitable labor, districts such as Mission Bay were abandoned. In the face of this economic rearrangement, the associated shipping and distribution activities at the Port of San Francisco re-located to Oakland. At present, Mission Bay is a section of the city in transition, a typical feature in post-industrial transformation. The district's function in the urban system is shifting from industrial purgatory to residential, and its economic base in biotechnology research anchored with the new UCSF campus.

The area is currently experiencing radical redevelopment by its owner and master builder, Catellus (a ProLogis Company, formerly the Santa

Fe Railroad) (Beedle 2006). Redevelopment plans capitalize upon and enhance the district's many amenities: vast open space, waterfront location, and proximity to the Central Business District. In keeping with its longtime legacy as a transit node, the neighborhood is directly served by Caltrain, Muni buses and Metro (including the newly established 3rd Street Rail line), and highways 80, 280, and 101.

Catellus – in alignment with the San Francisco General Plan and development suggested by the Association of Bay Area Governments (ABAG) – is building a dense, mixed-use neighborhood on site that will expand the city's housing stock by 6,000 units (SFRA 2006). 1,700 (28%) of these units are slated for moderate, low, and very low income households, the majority of which are being built by the San Francisco Redevelopment Agency (SFRA, 2006). The plans, heavily influenced by New Urbanism design principle, emphasize neighborhood services and retail, including: a new public branch library, a 500-student public school, new fire and police stations, childcare centers, a senior service complex (SFRA, 2006), grocery stores and restaurants.

Ecological and environmental dimensions

Despite decades of alteration, Mission Creek still serves as a wetland habitat to a variety of wildlife. These include sixty-one bird species (such as the great blue heron, snowy egret, black crowned night heron) and seven fish species (shiners, pile perch, baby herring, anchovies) that use the waterway as a nursery. (Sward, 1998) Fortunately, the natural heritage of the Creek figures prominently in the projects of both Catellus and the community of 20 houseboats that occupy the southern bank. The houseboaters, relocated in the early 1960s from Is-



Bird Perches in Mission Creek

The houseboat residents of Mission Creek Marina are very active custodians of their unique environment. These perches (foreground) were built from old driftwood. The new, high-density mixed use developments are seen in the background. (Source: Ocubillo, 2006)



Huffaker Park and Butterfly Garden

The houseboat residents lease their berths from the Port of San Francisco (Weir 2006). The southwest end of Mission Creek Marina is planted and maintained by the residents (Source: Ocubillo, 2006).

lais Creek to the south (Adams, 2003), planted a butterfly garden and greenbelt along the southern shore (Zane, 1992). Butterflies include the Vanessa annabella and anise swallowtail (Adams, 2003).

Preserved wetlands and parks have long been envisioned along Mission and Islais Creeks (Levy, 1998). Mission Bay plans contain 49 acres of open public space, including 13 acres of waterfront parkland (Adams, 2003). According to Carolyn Weir, Assistant Manager of the Mission Bay Parks System, public amenities will also include a kayak launching facility, basketball and tennis courts (2006).

The most interesting development proposal linked with the Mission Creek watershed is the Mission Creek Greenbelt and Bikeway. This project was conceived by the SF Bicycle Coalition and the Madrina Group (Adams, 2003), and would directly link the Mission District with Mission Bay, expanding access to the adjacent SOMA and Financial Districts. The positive implications of a tree-lined bicycle expressway are many, especially with regard to ubiquitous auto-oriented urban problems like surface traffic, air pollution, and physical safety. According to Josh Hart of the SF Bicycle Coalition:

“Rail-to-Trail conversions have become important tools for urban planners seeking to provide human-scaled environments in today’s car-centered cities. Rail lines recycled into greenways are often a seed that sprouts into tangible economic, social, and environmental benefits to the surrounding community. Groups such as the Northeast Mission Business Association are supporting the Mission Creek plan... because of the many studies that have documented the link between new rail-trails and an invigorated economy” (2006).

The Bikeway project clearly expresses the increasingly sophisticated ideology espoused by urban residents, who in trademark postmodern fashion connect the ancient legacy of transportation along Mission Creek with possibilities for contemporary, sustainable urban infrastructure. The bikeway would appropriate the path of the former Santa Fe rail line, which in turn was built along the buried stream. The parcels forming the right-of-way were sold to different companies when Santa Fe disbanded. Thus, full realization of the Greenbelt-Bikeway would entail complicated land acquisitions along a



Mission Creek Park, South Bank (Ocubillo 2006)

.A panoramic taken from the 4th Street Bridge facing south and east. The new parks were designed by world renowned landscape architect Laurie Olin and the environmental design firm EDAW (Adams 2003).

contiguous path (Hart 2006). The cost of the project – together with land acquired through eminent domain or direct purchase – is estimated in excess of one million dollars (Adams 2003).

Conclusion

The ravages of industrial development on Mission Creek are gradually turning over to more humane and ecologically oriented built environments. While the watershed can never be completely restored, the city government, private developers, grassroots organizations and residents are all working towards preserving what little natural environment that remains. The new development plans seem to balance local ecological concerns with the acute housing shortage, while at the same time enhancing the area's natural amenities. These amenities, in conjunction with newly installed public services such as transit and shopping, make Mission Bay an increasingly prestigious place to live. There seems little evidence of low-income homeownership

opportunities in Mission Bay, or the investment for locally owned businesses in the area, hinting towards impending gentrification. In the early planning stages, the project was widely criticized as a sweetheart deal between the Mayor's Office and developers (Levy, 1998). Do the housing developments serve the city's moderate and low-income residents – the residents that most need affordable housing choices – or are they in fact only accessible to people with ample financial resources? The same thing may be asked of revitalization projects in any district of any city; in San Francisco, Hayes Valley, Rincon Hill, and the Dogpatch – just south of Mission Bay on the shoreline – come to mind. Despite these questions, the changes at Mission Bay are markedly progressive compared to developments in past periods. Perhaps one day, the essence of the bygone Mission Creek will resurface, and San Franciscans will enjoy bicycling along a tree-lined expressway from backyard to ballpark. §



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