



ENVIRONMENTAL STEWARDSHIP PROJECT

YEAR 2 ANNUAL REPORT

OCTOBER 26, 2010



Prepared for:

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Prepared by:

CITY OF TACOMA

1.0 Introduction

In accordance with the terms and conditions of the Settlement Agreement between the U.S. Environmental Protection Agency and the City of Tacoma, and the associated Annual Scope of Work, this report presents the progress of the Long Term Environmental Site Stewardship Project during the period between October 1, 2009 and September 30, 2010. This project was undertaken in connection with the settlement of an enforcement action taken by the United States Environmental Protection Agency for violations of CERCLA. As the submittal date for the quarterly report and annual report fall on the same day, we have incorporated all of the information into one document in an effort to reduce redundancy.

The Environmental Stewardship Project (ESP) resulted from the need to provide long-term care for restoration sites within the Commencement Bay/Puyallup River watershed that no longer have regulatory or legal requirements for maintenance, monitoring, or adaptive management. The primary goal of the ESP is to “ensure the health of the restoration projects in the Puyallup River watershed so they continue to provide function and value.” The City is fulfilling the role of Steward for the following sites:

- Yowkwala
- Skookum Wulge
- Squally Beach
- Mowitch
- Jordan/Lower Hylebos Marsh
- Middle Waterway, City of Tacoma
- Middle Waterway, Simpson
- Olympic View, City/DNR
- Tahoma Salt Marsh
- Swan Creek

The City will continue to fulfill the role of Steward under the direction of the Natural Resource Damage Trustees (Trustees) until such time that the penalty monies which have been placed in escrow for this purpose have been exhausted.

2.0 Site by Site Summaries

The following is a site by site summary of general site observations, work completed during the reporting period, summary of data collected, and proposed tasks.

2.1 Yowkwala

The Yowkwala site is located on the northeast shore of Commencement Bay near the mouth of the Hylebos Waterway. These 15 acres were set aside for preservation of the shoreline’s intertidal habitat areas and native vegetation. The site consists of a rocky beach, a relatively flat backshore, riparian planted area, and a steep forested hillslope behind (see figure in Attachment 1). The majority of the work on this site will take place in the backslope riparian planting area. Access to this site is primarily from a private marina parking lot, Tyee Marina, to the southeast. In addition, there are two pullouts above the hillslope off of Marine View Drive that provide viewing areas, but no access points.

This site was set aside by the Trustees, and a beach cleanup including the removal of two derelict barges was completed in 2000. Citizens for a Healthy Bay (CHB) performed stewardship, monitoring, and maintenance activities at this site under an agreement with the Trustees that expired at the end of 2009. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City has entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 8 2009, December 3, 2009, February 9, 2010, April 22, 2010, June 24, 2010, and August 31, 2010. Photo points were established during Year 1 as shown on the attached figure. Where possible, photos were taken at these points by the City in February and August as required by the Settlement Agreement. Some of the photo point locations were adjusted to accommodate tidal conditions and missing photo points. Photos were taken to best replicate the field of view of previous photos. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Trash and invasive species removal are the primary concerns at this site. Invasive species present at the site include poison oak, pepperweed, blackberry, butterfly bush, Scot's broom, dock, thistle, nightshade, and pampas grass. Gumweed, pickleweed, fleshy jaumea, black raspberry, and dune grass are volunteering at the site. Some additional plantings have been made, and more are needed at the site, although Dri-water or some other means of temporary irrigation and mulch may be needed during plant establishment depending on the timing. Continuing evidence of beach bonfires and associated party trash were noted. This is a long-standing problem at this site.

This site is owned by the Puyallup Tribe of Indians. On October 21, 2010, the City received signed copies from the tribe and those are now routing through the City signature process. Previously, authorization for site access was provided on a case-by-case basis. Therefore, some projects planned for this site may have experienced limited on-site assistance by City staff and crews and may have been reduced in scope and/or delayed.

Bi-monthly monitoring data are summarized in the data spreadsheet (see Table 1 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 18 – WCC completed garbage sweep of site;
- January 26, 27, 28 – WCC began removal of invasives at the north end of site;
- February 3 – WCC completed garbage sweep of site;
- March 4, 30 – WCC performed removal of pepperweed;
- April 6 – WCC performed removal of invasives and a garbage sweep;
- June 19 – CHB conducted a volunteer invasive removal event;
- July 14 – An EarthCorps crew removed approximately 3½ cubic yards of invasives; and
- July 24 – CHB conducted a volunteer shoreline cleanup event.

Work proposed for this site in the coming year includes ongoing invasive species and trash removal, and supplemental planting in the area affected by the burn as well as in the backshore area and the trail (see Task List in Attachment 3).

2.2 Skookum Wulge

The Skookum Wulge site is located on the northeast shore of Commencement Bay near the mouth of the Hylebos Waterway. This narrow strip of 1.19 acres has been set aside for preservation of the shoreline's intertidal habitat areas and native vegetation. The site consists of a rocky beach, a small backshore embayment, and an upper riparian planted area (see Figure in Attachment 1). There is approximately a 3-4 foot elevation difference between the planted area and the upper beach due to erosion. The majority of the work on this site will take place in the riparian planting area, although some erosion protection measures may take place on the upper beach. Access to this site is primarily from a turnout off of Marine View Drive adjacent to the site.

This site was set aside by the Trustees for protection in 1999. No active restoration of the site happened initially. CHB performed stewardship, monitoring, and maintenance activities at this site under an agreement with the Trustees that expired at the end of 2009. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City has entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 8, 2009, December 3, 2009, February 9, 2010, April 27, 2010, June 25, 2010, and August 31, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Invasive removal and new, native plantings are the primary activities which are needed at this site. Invasive species present at the site include blackberry, ivy, morning glory, white sweet clover, pepperweed and Japanese Knotweed. Knotweed was not injected in 2010 due to permitting and access issues. Some big leaf maple, salt grass, and gumweed are volunteering/present at the site. Erosion of the shoreline continues.

This site is owned by the Puyallup Tribe of Indians. On October 21, 2010, the City received signed copies from the tribe and they are now routing through the City signature process. Previously, authorization for site access was provided on a case-by-case basis. Therefore, some projects planned for this site may have experienced limited on-site assistance by City staff and crews and may have been reduced in scope and/or delayed.

Bi-monthly monitoring data are summarized in the data spreadsheet (see Table 2 in Attachment 1). The following activities were completed at the site during the reporting period:

- October 14, 20, and 22 – WCC prepared the north half of the site for topsoil placement and hydroseed application;

- October 17, 24 – CHB conducted volunteer invasive removal events;
- October 23, 24 – City’s Streets and Grounds Division performed topsoil placement and hydroseeding;
- November 7 – CHB held volunteer planting/mulching event;
- November 18 – WCC completed garbage sweep of site;
- January 26 – WCC checked on site and repaired silt fence;
- February 17– WCC planted 41 native plants on slope;
- March 22 – WCC transplanted plants that were within 6 feet of the eroding edge;
- April 7 – WCC performed removal of invasives and a garbage sweep and planted 112 natives on the slope;
- July 13 – An EarthCorps crew removed a wooden dock that washed up on the beach;
- July 24 – A volunteer shoreline cleanup event was conducted by CHB and included removal of debris from this site; and
- August 14 – A public event was conducted by CHB to perform invasive removal on the south half of the site.

Work proposed for this site in the coming year includes ongoing invasive species and trash removal, placement of erosion control matting and mulch/topsoil in weeded areas, supplemental planting with native species, and enhancement of the beach plant community (see Task List in Attachment 3).

2.3 Squally Beach

The Squally Beach site is located on the northeast shore of Commencement Bay just north of the 11th Street Bridge (see figure in Attachment 1). Seeps from the hill above are diffused over the shoreline creating an area of brackish marsh and backwater pools. This 0.66 acre site provides intertidal habitat, riparian habitat and native vegetation. The site consists of small raised island areas within the marsh area. A wooded strip of riparian area separates the site from the adjacent roadway. The majority of the work will take place in the marsh area, but some work may be required in the wooded area adjacent to the roadway. Access to the site is from a turnout off of Marine View Drive toward the northwest end of the site.

Development of this site was completed by the Trustees in 2000. CHB performed stewardship, monitoring, and maintenance activities at this site under an agreement with the Trustees that expired at the end of 2009. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City has entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 8, 2009, December 3, 2009, February 9, 2010, April 27, 2010, June 11, 2010, June 25, 2010 and August 31, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

The fencing that was initially installed on site to protect the young plants from the smothering effects of large woody debris has been modified to include only the posts at this time. The site will be monitored through the winter months and if all goes well some or all posts may be removed at some time in the future.

The site appears to be generally well-established with native vegetation including willow, alder, pickleweed, orache, cattails, etc., but there are some invasive species present as well. There are two issues of primary concern related to these invasive species. The first is the knotweed that is present in the area adjacent to the site to the northwest as well as in the middle of the site. In particular, controlling it at the northwest end will be necessary to prevent it from continuing to be a problem on this site. The knotweed was not injected in 2010 due to permitting and access issues. The second is the noted presence of *Spartina angelica*. Its presence was first identified on the site in October 2009, and the WCC removed the identified clumps. It was found again during the August inspection, and was present over a larger area of the site. The City notified US Fish and Wildlife (Judy Lantor), who in turn notified the Department of Agriculture. A crew from the Department of Agriculture specializing in the control of this invasive species removed over 90+ identified plants on September 30, 2010, and will continue to monitor the site. This is the first identified presence of this species in Commencement Bay.

This site is owned by the Puyallup Tribe of Indians. On October 21, 2010, the City received signed copies from the tribe and they are now routing through the City signature process. Previously, authorization for site access was provided on a case-by-case basis. Therefore, some projects planned for this site may have experienced limited on-site assistance by the City staff and crews and may have been reduced in scope and/or delayed.

Bi-monthly monitoring data are summarized in the data spreadsheet (see Table 3 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 18 – WCC completed garbage sweep of site;
- January 25, 26 – WCC removed invasive species;
- April 7 – WCC performed removal of invasives and a garbage sweep;
- June 17 – WCC performed a garbage sweep;
- July 10 – CHB conducted a volunteer event for removal of invasive species and removal of fencing materials;
- July 24 – CHB conducted a volunteer shoreline cleanup event which included removal of debris from this site; and
- September 30 – Removal of *Spartina angelica* by a crew from the Department of Agriculture.

Work proposed for this site in the coming year includes ongoing invasive species and trash removal, and additional plantings on the islands and in the riparian areas, mainly the areas previously inhabited by knotweed (see Task List in Attachment 3).

2.4 Mowitch

The Mowitch site is located at the head of the Hylebos Waterway. This 2.3 acre site provides intertidal backwater fingers that enable brackish marsh vegetation to grow and foraging and refuge habitat for salmonids. The site consists of one island marsh area and three other marsh areas separated by backchannel areas. An upland riparian zone separates the habitat area from an adjacent industrial site (see figure in Attachment 1). The majority of the work on this

site will take place in the marsh areas. Access to the site is from the southeast corner of the site off of Marine View Drive and adjacent to the railroad tracks.

Development of this site was completed by the Trustees in 2000. CHB performed stewardship, monitoring, and maintenance activities at this site under an agreement with the Trustees that expired at the end of 2009. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City has entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

This site is owned by the Port of Tacoma, and the City recently executed a site access agreement with the Port. Prior to the date of the access agreement, work activities were authorized on a case-by-case basis.

Year 2 inspections took place at this site on October 8, 2009, December 10, 2009, February 9, 2010, April 27, 2010, June 25, 2010, and August 25, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

The site appears generally healthy with some plant stress in the riparian area noted due to the recent dry weather. Several species of plants are volunteering at the site, including pickleweed, orache, fleshy jaumea, and brass buttons, along with one happy gumweed plant. There are also some invasive plant species present, most notably Himalayan blackberry, bird's foot trefoil, pepperweed, tansy, reed canary grass, white sweet clover, and phragmites. Much of the goose exclusion fencing has been removed, and no increase in predation was noted. Overall, the site is in good condition. While the shrubs, shore pine and Douglas fir are all doing well, some additional planting of canopy species will be beneficial to the site.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 4 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 18 – WCC completed garbage sweep of site;
- January 26 – WCC removed invasives;
- March 4, 22, 29 – WCC removed invasives including pepperweed and deconstructed goose exclusion;
- May 4, 5, 6 – WCC grubbed invasives, removed three goose exclusion nodes, and recycled the metal;
- September 7, 8 – WCC grubbed invasives including phragmites; and
- September 20 – WCC performed knotweed injection and invasive removal.

Work proposed for this site in the coming year includes ongoing invasive species and trash removal, applying mulch around existing plants, and additional plantings in the riparian and island areas (see Task List in Attachment 3).

2.5 Jordan/Lower Hylebos Marsh

The Jordan/Lower Hylebos Marsh site is located directly adjacent to Hylebos Creek in Fife, just downstream of the 4th Street bridge. The 15.3 acres site provides off channel intertidal habitat for fish migration, rearing, foraging, and refuge. The site consists of a steep, wooded hillslope, a public walking trail, planted riparian areas, marsh areas, and islands (see figure in Attachment 1). The majority of work at this site will be performed in the planted riparian and marsh areas, as well as on the islands. Some work may be performed on the lower hillslope adjacent to the walking path. Access to the site is from 4th Street East or 8th Street East at the northwest or southeast sides of the site, respectively.

Development of this site was completed by the Trustees in 2005. Until recently, the non-profit group Friends of the Hylebos (FOH) was working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. The FOH agreement with the Trustees expired in June 2008. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. FOH is working under a subcontract with CHB for continued stewardship of this site. The City, CHB, and FOH are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 8, 2009, December 10, 2009, February 3, 2010, April 28, 2010, June 14, 2010, and August 25, 2010. Photo points were established during Year 1 as shown on the attached figure. Where possible, photos were taken at these points by the City in February and August as required by the Settlement Agreement. Some of the photo point locations were adjusted to accommodate site conditions and missing photo points. Photos were taken to best replicate the field of view of previous photos. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Overall the site appeared to be in good condition. Invasive species are the primary concern at this site, with species including Himalayan blackberry, reed canary grass, knotweed, and purple loosestrife being of the most concern. Alder continue to thrive at the site and a removal/thinning action was performed in August. Subsequently, the Trustees expressed concern that the activities performed did not meet their expectations. The City is continuing to follow up with the Trustees and others to remedy the issue.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 5 in Attachment 1). The following activities were completed at the site during the reporting period:

- October 27, 28 – WCC crew brush cut blackberry on east side of trail and performed garbage pick-up. The crew also reset the small stewardship sign placed near the educational project sign;
- February 2, 25 – WCC completed garbage sweep of site;
- July 26, 27, 28, 29 – WCC grubbed invasives, tied reed canary grass, and performed a garbage sweep;
- August 9, 10, 11, 26 – FOH/Restoration Logistics performed alder thinning; and
- September 20 – WCC injected knotweed.

Work proposed for this site in the coming year includes ongoing invasive species and trash removal and planting of the slopes on the east side of the trail as well as any activities related to the resolution of the alder thinning action (see Task List in Attachment 3).

2.6 Middle Waterway, City of Tacoma

The Middle Waterway, City of Tacoma site is located at the head of the Middle Waterway near 11th Street (see figure in Attachment 1). This 1.85 acre site provides intertidal habitat and salt marsh vegetation beneficial for juvenile salmonid migration. The riparian areas provide habitat for shore birds and other wildlife. The majority of the work at this site will be performed in the marsh area and riparian areas. Access to this site is off of F Street or 11th Street.

This site was constructed by the City of Tacoma in 2000. While the City's obligation under its Consent Decree required monitoring and maintenance of the site for only five years, the City continued to maintain the site since those five years lapsed in 2006. With the execution of the Settlement Agreement in August 2008, the City is again under obligation to provide ongoing stewardship of this site. The City entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 21, 2009, December 10, 2009, February 9, 2010, April 28, 2010, June 26, 2010, and August 10, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Overall, the site is in very good condition. Invasive species removal is the primary concern at this site. Invasive species present at the site include white sweet clover, Himalayan blackberry, butterfly bush, dame's rocket, nightshade, and knapweed. Fleshy jaumea, pickleweed, and saltgrass are continuing to spread well at the site. Some additional plantings are planned along F Street in both the riparian and high marsh areas and in the side riparian area adjacent to the back of the substation. Some mulch may be needed in association with this additional planting.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 6 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 19 – WCC completed garbage sweep of site;
- January 20 – WCC removed invasive pampas grass and blackberry. Crew also cut back vegetation from the 11th Street sidewalk;
- February 17, 24 – WCC planted 206 natives in identified riparian areas;
- March 3, 30 – WCC removed invasives and completed garbage sweep;
- April 7 – WCC grubbed invasives and planted 100 native plants;
- April 28 – WCC performed an invasive sweep;
- June 3 – WCC performed invasive removal and a garbage sweep;
- August 4 – WCC grubbed invasives; and
- September 8, 9 – WCC performed invasive removal and a garbage sweep.

Work proposed for this site in the coming year includes ongoing invasive and trash removal, additional plantings along F Street and adjacent to the substation, and maintenance of access points (see Task List in Attachment 3).

2.7 Middle Waterway, Simpson

The Middle Waterway, Simpson site is located at the head of the Middle Waterway near 11th Street, and adjacent to the Middle Waterway (City) site. This site provides intertidal habitat and salt marsh vegetation beneficial for juvenile salmonid migration. The riparian areas provide habitat for shore birds and other wildlife. A combination of mudflat areas, beach areas, and bank/wooded areas are present at the site (see figure in Attachment 1). The majority of the work will take place in the beach areas, however, most of the invasive species removal will occur in the bank/wooded areas. Access to this site is off of the Middle Waterway Access Road.

This site was constructed by Simpson in 1996. CHB performed stewardship, monitoring, and maintenance activities at this site under an agreement with the Trustees that expired at the end of 2009. With the execution of the Settlement Agreement in August 2008, the City began providing stewardship of this site. The City has entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 21, 2009, December 10, 2009, February 3, 2010, April 28, 2010, June 26, 2010, and August 10, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Overall, the site is in very good condition with some heat stress noted as a result of the dry summer. Invasive species removal is the primary concern at this site. Invasive species present at the site include St. John's Wort, blackberry, and knapweed. Some pickleweed was volunteering and some predation of the planted dune grass was noted.

This site was the location of an Earth Day event coordinated by CHB on April 17, 2010. Pickleweed (2,200), Dune grass (995), gumweed (150), and seacoast bulrush (100) were planted by 116 volunteers, 6 EarthCorps employees, and 5 CHB staff. Invasive removal was also performed at the event. Educational displays were available along with free trees and TAGRO potting mix for the volunteers. Following the event, the WCC and CHB installed goose exclusion fencing. Subsequent inspection found that most of the April plantings were doing well.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 7 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 19 – WCC completed garbage sweep of the site;
- April 7 – WCC installed rebar for new goose exclusion in preparation for planting;

- April 17 – CHB conducted an Earth Day event including invasive removal, planting and public education; and
- April 29 – WCC built remaining goose exclusion for new planting.

Work proposed for this site in the coming year includes ongoing invasive and trash removal, mulching around existing plants, additional planting in the riparian and salt marsh areas, and associated extension of goose exclosures as needed (see Task List in Attachment 3).

2.8 Olympic View (City) / Olympic View Triangle (DNR)

The Olympic View site is located at the tip of the peninsula between the Thea Foss and Middle Waterways (see figure in Attachment 1). This 12.4 acre site consists of restored beach, tidelands, and riparian areas. On-site, but just off-shore, is one of the few remaining eelgrass beds in Commencement Bay. The majority of the work on this site will take place on the upper beach/riparian area. Access to this site will be from the end of East F Street near Foss Maritime.

The Olympic View project that included both cleanup and restoration was constructed by the City of Tacoma in 2002. In 2007, the DNR Triangle portion of the site was completed by DNR, including remediation of some contaminated soil and added salt marsh habitat. While the City's obligation under its Consent Decree required monitoring and maintenance of its portion of the site for only five years, the City has continued to maintain the site since those five years lapsed in 2007. With the execution of the Settlement Agreement in August 2008, the City is again under obligation to provide ongoing stewardship of its portion of this site. The City entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. In addition, DNR has ongoing responsibility for monitoring of its portion of the site.

Year 2 inspections took place at this site on October 21, 2009, December 10, 2009, February 3, 2010, April 30, 2010, June 26, 2010, and August 11, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Overall, the site is in good condition with only some drought stress noted. Invasive species removal in the riparian area is a primary concern at this site. Invasive species present at the site include pepperweed, poison hemlock, white sweet clover, blackberry, St. John's Wort, nightshade, and tansy. Some progress in establishment of the salt marsh was noted, with a few species found in the triangle area.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 8 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 19 – WCC completed garbage sweep at site and removed invasive species;
- December 22, 23 – WCC continued invasive species removal from site;
- January 20, 27 – WCC removed invasive species;

- February 2, 17 – WCC transplanted cottonwoods from triangle area to the small riparian shoreline strip near Capital Warehouse, cut back and removed exposed green netting, and completed garbage pickup;
- March 2, 3, 30 – WCC crew removed invasives, in particular poison hemlock and pepperweed, and completed garbage sweep;
- April 6, 28 – WCC moved interpretive sign and removed invasive species; and
- June 1 – WCC grubbed invasives.

Work proposed for this site in the coming year includes ongoing invasive and trash removal, additional riparian plantings, monitoring of the salt marsh species, additional planting as approved, and visual monitoring of erosion in the salt marsh (see Task List in Attachment 3).

2.9 Tahoma Salt Marsh

The Tahoma Salt Marsh site is located along the Ruston Way shoreline near the Jack Hyde and Chinese Reconciliation Parks. This 1.95 acre bowl-shaped riparian and salt marsh habitat provides intertidal habitat for juvenile salmonids. The riparian areas provide habitat for shore birds and other wildlife. The site consists of a planted intertidal salt marsh area and surrounding riparian slope (see figure in Attachment 1). The majority of the work at this site will occur within this bowl area in both the intertidal marsh and riparian zones. Access to this site is through the parking lot located across Ruston Way from Jack Hyde Park.

The Tahoma Salt Marsh project was constructed by the City in 2004. While the City's obligation under its Consent Decree required monitoring and maintenance of its portion of the site for only five years, the City has continued to maintain the site since those five years lapsed in 2008. CHB has also provided some stewardship activities at this site since 2008 on behalf of the Trustees. With the execution of the Settlement Agreement in August 2008, the City is again under obligation to provide ongoing stewardship of its portion of this site. The City entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 21, 2009, December 3, 2009, February 3, 2010, April 25, 2010, June 23, 2010, and August 21, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Overall, the site is in very good condition with only minor heat stress noted. The salt marsh continues to fill in with vegetation, with salt grass showing the most dominance. Invasive species removal is a primary concern at this site. Invasive species present at the site include Himalayan blackberry, thistle, reed canary grass, pepperweed, morning glory, and tansy ragwort. Pickleweed is doing well and spreading in the marsh area, and the scirpus maritimus is getting well established. One area of gumweed on the toe of Riparian Area E appears dead, and will continue to be monitored. The grasses in the riparian area are doing quite well, but need to be removed from around the shrubs and trees on an ongoing basis. This need will lessen as the canopy shade increases.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 9 in Attachment 1). The following activities were completed at the site during the reporting period:

- November 10 – Re-secured salt marsh log;
- November 19 – WCC crew completed garbage sweep of site;
- December 12 – CHB conducted a volunteer mulching event;
- March 2 – WCC crew removed invasives;
- April 5 – WCC crew removed invasives;
- June 5 – CHB conducted a volunteer event for invasive removal;
- June 14 – WCC crew removed invasives; and
- September 20, 22, 22 – WCC grubbed invasives and tied reed canary grass.

Work proposed for this site in the coming year includes ongoing invasive and trash removal and additional marsh plantings for added diversity and coverage (see Task List in Attachment 3).

2.10 Swan Creek

The Swan Creek site is located just outside the City of Tacoma limits, bordered by Pioneer Way and the railroad tracks. These 12 acres include Swan Creek, the Haire wetland and associated riparian areas. The created channels provide an improved surface water connection that allows easier passage for fish into the wetland complex. This site consists of many habitat types that provide avian, amphibian, and fish habitat for rearing, refuge, and foraging. The majority of the work at this site will take place in the riparian areas and near Channels A and B. Access to this site is from turnouts on Pioneer Way.

The Swan Creek project was constructed by the City in 2000. While the City's obligation under its Consent Decree required monitoring and maintenance of its portion of the site for only five years, the City has continued to maintain the site since those five years lapsed in 2006. With the execution of the Settlement Agreement in August 2008, the City is again under obligation to provide ongoing stewardship of its portion of this site. The City entered into a contract with CHB to provide assistance with stewardship, monitoring, community involvement, and maintenance activities required by the Agreement. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary.

Year 2 inspections took place at this site on October 21, 2009, December 16, 2009, February 3, 2010, April 28, 2010, June 25, 2010, and August 11, 2010. Photo points were established during Year 1 as shown on the attached figure. Photos were taken at these points by the City in February and August as required by the Settlement Agreement. The photographs from February were provided to the Trustees in the Year 2 Second Quarter Report in April, and the photographs from August are included in Attachment 2 along with the field form from that inspection. Field forms from the remainder of the Year 2 inspections were provided in previous quarterly reports and are summarized in the Site Record (Tables 1-10 in Attachment 1).

Invasive species continue to be the primary concern at this site. Prevalent invasive species present at the site include Scott's broom, blackberry, morning glory, ivy, policeman's helmet, dame's rocket, reed canary grass, and knotweed. Some areas are showing some plant stress due to the recent dry weather. New shrubs were planted in an area at the south end. The Little Red Smoke Shack near the south end of the site was demolished, and the debris is piled partially on site. The chain and bollard barrier was also damaged during demolition. The Puyallup Tribe was notified of this issue.

Quarterly monitoring data are summarized in the data spreadsheet (see Table 10 in Attachment 1). The following activities were completed at the site during the reporting period:

- October 5, 6, 7, 8 – WCC crew remove invasives species;
- November 2 – Installed jute matting on cleared areas;
- November 3 – Planted 320 plants in cleared areas;
- November 23 – WCC completed garbage sweep at site;
- December 14, 15, 16 – Invasive removal;
- January 4, 5, 6, 7, 11, 20 – WCC crew pulled invasive ivy from the slope, worked to create a suggested plant list and planting plan, removed and disposed of 20 tires, installed jute mat, installed live stakes, and repaired the damaged fence;
- February 3, 16, 17, 18, 22, 23 – WCC crew installed jute matting, completed a garbage sweep, and planted 750 natives and 140 live stakes;
- March 22, 24, 25 – WCC crew mulched new planted plants and removed invasives;
- April 5, 29 – WCC crew performed invasive removal and a garbage sweep;
- May 1 – CHB conducted a volunteer event for invasive removal;
- June 2, 3, 14, 15, 16, 22 – WCC crew grubbed invasives; and
- September 20 – WCC performed knotweed injection.

Work proposed for this site in the coming year includes ongoing invasive and trash removal (see Task List in Attachment 3).

3.0 Financial Summary

Financial information documenting the City's costs for each task performed from July 1, 2010 through September 30, 2010 is provided in Attachment 4. Also included is a table summarizing Year 2 expenses (plus the 4th quarter of Year 1 which was not previously invoiced), on a quarterly basis for the period from October 1, 2009 through September 30, 2010. The work performed at each site is summarized in Section 2.0. As documented in Attachment 4, the City incurred the following costs between July 1, 2009 and September 30, 2010:

Task 1	Project Management	\$9,336.01
Task 2	Reporting and Documentation	\$4,769.20
Task 3	Site Monitoring	\$5,718.39
Task 4	Site Maintenance	\$45,893.69*
Task 5	Adaptive Management	\$11,019.61
	General Maintenance and Monitoring	
Total		\$76,736.90

* Based on WCC crew rate of \$48.08/hr

The City hereby requests disbursement from the escrow account in the amount of \$76,736.90 for work completed under the Settlement Agreement between October 1, 2009 and September 30, 2010. Following this disbursement, \$203,773.66 will remain in the escrow account for future stewardship activities at these sites.