



ENVIRONMENTAL STEWARDSHIP PROJECT

YEAR 1 ANNUAL REPORT

SEPTEMBER 29, 2009



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 since it began in June 2009. 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 fell 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. In recent years, Citizens for a Healthy Bay (CHB) has been working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. CHB provides regular reporting of their activities to the Trustees under separate cover.

The City's initial bi-monthly site visit took place on August 6. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. 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, Scotch broom, dock, and pampas grass. Gumweed, orache, and dune grass are volunteering at the site. Additional plantings are needed at the site, although Dri-water or some other means of temporary irrigation and mulch may be needed during plant establishment. During the site visit, evidence of recent beach bonfires and associated party trash were noted. This is a long-standing problem at this site. Quarterly monitoring data are summarized in the data spreadsheet (see Table 1 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- July 21–23 – Stairway on upper slope dismantled and removed in attempt to minimize trespassing on the site.
- July 23 – Approximately 300 square feet of invasive removal.
- August 6 – Initial City site visit including establishment of photo points.
- August 10 – “No Beach Access – Previous Access Removed” sign installed at the top of the slope where the stairway had been removed.
- August 18 – Stairway and invasive debris removed from the site.
- September 22 – Invasive vegetation removal along access trail and along beach.

In addition to these activities, CHB performed an invasive removal volunteer event on August 8; as well as a shoreline debris pick-up on July 18.

Work proposed for this site in the coming year includes additional invasive removal, regrading, mulching, and planting the social trail from treeline down to beach, increasing the plant diversity in the backshore areas, removing invasives and replanting the area that burned in 2003, and removing the party area on the beach (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. In recent years, CHB has been working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. CHB provides regular reporting of their activities to the Trustees under separate cover.

The City's initial bi-monthly site visit took place on August 6. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. 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, pepperweed and Japanese Knotweed. Some big leaf maple, salt grass, and gumweed are volunteering/present at the site. There is some ongoing erosion of the shoreline occurring, and the placement of large woody debris for erosion protection should be considered. Quarterly monitoring data are summarized in the data spreadsheet (see Table 2 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- August 19 – Approximately 2,000 square feet of invasive species and trash removal.
- September 17-18 – Worked with CHB on a volunteer event to remove trash and blackberries. Approximately 10 cy of debris was removed.
- September 22 – Injection of Japanese Knotweed.

In addition to these activities, CHB performed invasive removal and mulching volunteer events on May 30, June 6 and August 1; as well as a shoreline debris pick-up on July 18.

Work proposed for this site in the coming year includes ongoing invasive species removal, place erosion control matting and mulch/topsoil in weeded areas and replant with native species (some Dri-water may be needed during plant establishment), place perimeter fencing (chain and bollard) to prevent dumping, develop plan for placement of large woody debris for erosion control, and enhance 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. In recent years, CHB has been working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. CHB provides regular reporting of their activities to the Trustees under separate cover.

The City's initial bi-monthly site visit took place on August 6. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. Overall, the site appears to be well-established with native vegetation including willow, alder, pickleweed, orache, cattails, etc., but there are some invasive species present as well. Blackberry, pepperweed, and knotweed are the prevalent invasive species. Of primary concern is the knotweed that is present in the area adjacent to the site to the northwest. Controlling it in that location will be necessary to prevent it from continuing to be a problem on this site. There is approximately 30 feet of the fencing placed to prevent tidal wood debris from impacting the marsh area that needs to be replaced. Quarterly monitoring data are summarized in the data spreadsheet (see Table 3 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- August 25 – Approximately 30,000 square feet of invasive species removal, with 3 cy of debris removed.
- September 22-23 – Knotweed injection.

In addition to these activities, CHB performed an invasive removal volunteer event on August 4; as well as a shoreline debris pick-up on July 18.

Work proposed for this site in the coming year includes ongoing invasive species removal, repair of the log exclusion fencing, cutting and removal of the exposed fish netting to the extent it will not damage plants during removal, and additional plantings on the islands and in the riparian areas (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. In recent years, CHB has been working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. CHB provides regular reporting of their activities to the Trustees under separate cover.

The City's initial bi-monthly site visit took place on August 6. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. Some plant stress in the riparian area was noted due to the recent dry weather. Several species of plants are volunteering at the site, including pickleweed, orache, and brass buttons. There are also some invasive plant species present, most notably blackberry, bird's foot trefoil, pepperweed, and phragmites. Some predation of the carex was noted, but overall the site was in good condition. There is some construction netting present that is exposed and can be removed to the extent practicable. Some of the goose exclusion fencing is in disrepair. Some can be removed as plants are well established, while

others should be repaired. There were also some dead alders noted, consistent with observations at some of the other sites. Quarterly monitoring data are summarized in the data spreadsheet (see Table 4 in Attachment 1).

The City has not completed any activities at the site during the reporting period. CHB coordinated a volunteer work party to remove invasive vegetation on September 12.

Work proposed for this site in the coming year includes ongoing invasive species removal, applying mulch around existing plants, remove/repair goose exclusion fencing as needed, additional plantings in the riparian and island areas, and cutting and removal of exposed fish netting to the extent it will not damage plants during removal (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. In recent years, the non-profit group Friends of the Hylebos (FOH) has been working under agreement with the Trustees to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and FOH are working cooperatively to ensure that the efforts of each entity are complementary. To date, FOH has provided regular reporting of their activities to the Trustees under separate cover. Their stewardship work at the site was completed in June 2009.

The City's initial bi-monthly site visit took place on August 6. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. Overall the site appeared to be in good condition. Invasive species are the primary concern at this site, with species including blackberry, reed canary grass, and purple loosestrife being the most prevalent. Alder continue to thrive at the site and additional thinning may be needed. Quarterly monitoring data are summarized in the data spreadsheet (see Table 5 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- August 5-6 – Approximately 6,000 sq ft treated with invasive species removal (blackberry, thistle, dock, purple loosestrife), alder thinning, and tying of reed canary grass. Four cy of debris removed to compost.
- August 20 – Invasive species removal and tying of reed canary grass. Approximately 30,000 sq ft treated.
- August 26 – Invasive species removal and alder thinning. Approximately 10,000 sq ft treated and 0.5 cy debris removed.

Work proposed for this site in the coming year includes ongoing invasive species removal and thinning of the alder as needed.

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 has continued to maintain the site since those five years lapsed in 2006.

The City's initial bi-monthly site visit under the Settlement Agreement took place on August 12. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. 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, blackberry, butterfly bush, pampas grass, nightshade, and knapweed. Jaumea is spreading well at the site. There were some dead alder and willow at the site in the side riparian areas. Some additional plantings are needed along F Street and in the side riparian area adjacent to 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 by the City at the site during the reporting period:

- June 2 – Approximately 10,000 sq ft brushcut and invasive removal. Two cy of debris removed.
- August 4 – Invasive species removal over approximately 500 sq ft of area. One cy of debris removed.
- August 17 – Invasive species removal.
- August 18 – Debris removal from volunteer event.
- August 24-25 – Invasive species and trash removal. Two cy of debris removed.
- September 1 – Response to a diesel spill call from Department of Ecology. City staff drove by and noted no sheen on site.

In addition to these activities, CHB performed an invasive removal volunteer event on July 27.

Work proposed for this site in the coming year includes additional invasive removal, additional plantings along F Street and adjacent to the substation, maintaining the trail to the sign, and cutting the vegetation back from the adjacent sidewalks on East 11th Street (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. In recent years, Citizens for a Healthy Bay (CHB) has been working under agreement with Simpson to perform stewardship, monitoring, and maintenance activities at this site. With the execution of the Settlement Agreement, the City is now providing stewardship of this site. The City and CHB are working cooperatively to ensure that the efforts of each entity are complementary. CHB provides regular reporting of their activities to the Trustees under separate cover.

The City's initial bi-monthly site visit under the Settlement Agreement took place on August 12. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. 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 St. John's Wort, blackberry, and pea. Some pickleweed was volunteering and some predation of the goose tongue was noted. Quarterly monitoring data are summarized in the data spreadsheet (see Table 7 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- August 17 – Invasive species removal over area of approximately 30,000 sq ft. One cy of debris removed.
- August 18 – Debris removal from volunteer event.
- August 25 – Invasive species and trash removal. Two cy of debris removed.
- September 11 – An encampment was noted in the south woods near 11th Street – this was relayed to the property owner.

Work proposed for this site in the coming year includes ongoing invasive 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.

The City's initial bi-monthly site visit under the Settlement Agreement took place on August 13. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. Overall, the site is in good condition. Invasive species removal is a primary concern at this site. Invasive species present

at the site include pepperweed, burdock, white sweet clover, blackberry, St. John's Wort, nightshade, and tansy. Fireweed, cottonwood, and dill are volunteering at the site. Salt marsh species were recently planted in the DNR triangle area. Some predation of the tufted hairgrass was noted. Some erosion of the area near the sign at the Capital warehouse corner was identified. Quarterly monitoring data are summarized in the data spreadsheet (see Table 8 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- June 1 – Invasive removal, with approximately 1,000 sq ft treated and 6 cy of debris removed.
- August 24 – Invasive species and trash removal, with 0.5 cy of debris removed.

Work proposed for this site in the coming year includes additional invasive removal, thinning of the volunteer cottonwoods with possible transplanting to the front of the Capital warehouse walkway, additional riparian plantings, monitoring of the newly planted marsh and additional planting as needed based on survivability, and 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. The City and CHB are coordinating to ensure that activities performed by each entity are complementary. CHB provides separate documentation of their work to the Trustees.

The City's initial bi-monthly site visit under the Settlement Agreement took place on August 12. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. Overall, the site is in good condition. The salt marsh continues to fill in with vegetation, with salt grass showing the most dominance. A supplemental planting of the salt marsh by CHB is establishing nicely. Invasive species removal is a primary concern at this site. Invasive species present at the site include blackberry, thistle, nightshade, and tansy ragwort. Pickleweed is doing well and spreading in the marsh area, and red alder and red flowering currant are thriving in the riparian area. The grasses in the riparian area are doing quite well, but need to be removed from around the shrubs and trees. An anchor on one of the pieces of large woody debris has broken and needs to be tightened. Finally, minor repairs to the sprinkler system are needed. Quarterly monitoring data are summarized in the data spreadsheet (see Table 9 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- June 19 – 1,000 sq ft were brush-cut in preparation for volunteer event (note: WCC time recorded on June 15 due to Ecology timekeeping process).
- July 7 – 6,000 sq ft were brush-cut around plants.
- July 15 – Invasive species removal and debris hauled away from volunteer event.
- August 24 – Invasive species and trash removal. 40,000 sq ft treated and 1 cy of debris removed.
- September 18 – Citizen complaint received by CHB was relayed to City staff regarding the Sperry Dock demolition debris entering the site. City staff responded – there was no debris entering the site and the work is now complete.

In addition to these activities, CHB performed an invasive removal volunteer event on June 20.

Work proposed for this site in the coming year includes additional invasive removal, re-anchor large woody debris in place, remove wood debris (plywood with nails) from marsh area, pull grass away from shrubs and trees, and additional marsh plantings for added diversity (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.

The City's initial bi-monthly site visit under the Settlement Agreement took place on August 19. Photo points were established as shown on the attached figure. Photos were taken at these points and are included in Attachment 2 along with the field form. 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, reed canary grass, and knotweed. Some areas are showing some plant stress due to the recent dry weather. New shrubs have been planted in an area at the north end where invasive species had been removed. Dri-water was also placed with the plantings leading to increased survivability. Minor plant damage by beavers was noted in some areas. This site has some human impacts as well, with social trails and fishing use. Trash is a problem in areas. The chain and bollard barrier at the north end of the site needs repair. It was also noted that the entrance to Channel A had silted in approximately 40%, but was still fish passable. Quarterly monitoring data are summarized in the data spreadsheet (see Table 10 in Attachment 1).

The following activities were completed by the City at the site during the reporting period:

- June 3 – 2,000 sq ft were brush-cut.
- June 4 – One cy of policemen's helmet removal.
- July 2 – Dri-water installed, 1 cy of debris removed with 700 sq ft treated.
- July 7 – Additional policemen's helmet removal.

- July 30 – Additional policemen’s helmet removal. Four cy of debris removed with 6,000 sq ft treated.
- August 4 – Additional policemen’s helmet removal with 1,000 sq ft treated and 2 cy of debris removed.
- September 1-3 – Invasive removal (pulled thistle and grubbed and brushcut blackberry) with 20,000 sq ft treated.
- September 22 – Knotweed injections.

Work proposed for this site in the coming year includes ongoing invasive and trash removal, repair of the chain and bollard fence at the north end of the site, and additional planting on the roadside slope where invasive species have been removed (see Task List in Attachment 3).

3.0 Financial Summary

Financial information documenting the City’s costs for each task performed through June 30, is provided in Attachment 4. The work performed at each site is summarized in Section 2.0. As documented in Attachment 4, the City incurred the following costs:

Task 1	Project Management	\$3,060.63
Task 2	Reporting and Documentation	\$2,061.08
Task 3	Site Monitoring	
Task 4	Site Maintenance	\$867.73*
Task 5	Adaptive Management	
	General Maintenance and Monitoring	
Total		\$5,989.44

* Based on WCC crew rate of \$45.67/hr

The City hereby requests disbursement from the escrow account in the amount of \$5,989.44 for work completed under the Settlement Agreement through June 30, 2009. Following this disbursement, \$262,510.56 will remain in the escrow account for future stewardship activities at these sites.

Attachment 1

Tables and Figures

Table 1
ESP Site Record

ESP Site Record: Yowkwala	
Observational Categories	Dates of Site Visits 8/6/09
Human Impacts	Yes - Continues to be hang out spot with bonfires and party trash
Erosion	none noted
Weeds	Heavy along immediate shoreline area - butterfly bush, pepperweed, blackberry, scott's broom
Fencing	n/a
Plantings	Low survival of recent plantings due to weather/heat stress
Flora	Beach plants having most success
Fauna	Avian species noted
Photo-documentation	Taken

Table 2
ESP Site Record

ESP Site Record: Skookum Wulge	
Observational Categories	Dates of Site Visits
	8/6/09
Human Impacts	Minor trash
Erosion	Point continues to erode due to wave action
Weeds	Few native plants - presently primarily blackberry and ivy
Fencing	Repair of perimeter fencing needed when clearing and planting are completed
Plantings	Planned for October 2009
Flora	Few native plants
Fauna	Avian species noted
Photo-documentation	Taken

Table 3
ESP Site Record

ESP Site Record: Squally Beach	
Observational Categories	Dates of Site Visits 8/6/09
Human Impacts	Clearing from sign to marsh opening
Erosion	Minor - not significant
Weeds	Minor Blackberry and pepperweed. Knotweed to the north continues to be encroachment concern.
Fencing	Perimeter fencing is good. Wood debris exclusion fencing needs repair (approx. 30')
Plantings	none noted
Flora	All species doing well
Fauna	Avian species noted
Photo-documentation	Taken

Table 4
ESP Site Record

ESP Site Record: Mowitch	
Observational Categories	Dates of Site Visits
	8/6/09
Human Impacts	note noted
Erosion	none noted
Weeds	Small areas of blackberry, phragmites, and pepperweed. Bird's foot trefoil
Fencing	Needs main gate
Plantings	none noted
Flora	Volunteer pickleweed noted
Fauna	Avian species noted
Photo-documentation	Taken

Table 5
ESP Site Record

ESP Site Record: Jordan	
Observational Categories	Dates of Site Visits 8/6/09
Human Impacts	Minor trash - recreational trail use
Erosion	none noted
Weeds	Blackberry encroachment on E side of trail. Reed canary grass and purple loosestrife are on-going concerns
Fencing	Platform structures intact
Plantings	none noted
Flora	All species are doing well
Fauna	Beaver evidence. Avian species noted
Photo-documentation	Taken

Table 6
ESP Site Record

ESP Site Record: Middle Waterway, City	
Observational Categories	Dates of Site Visits 8/12/09
Human Impacts	Minor - along roads and high tide line
Erosion	Non-significant
Weeds	Small areas of knapweed, blackberry, nightshade, pampas grass, butterfly bush, white sweet clover
Fencing	Perimeter fencing intact
Plantings	Could use additional riparian plants in areas
Flora	Jaumea spreading.
Fauna	Avian species noted
Photo-documentation	Taken

Table 7
ESP Site Record

ESP Site Record: Middle Waterway, Simpson	
Observational Categories	Dates of Site Visits 8/12/09
Human Impacts	Minimal trash. Vagrant activity noted on the south end of the site near 11th Street
Erosion	none noted
Weeds	minor pea, st. john's wort, blackberry
Fencing	n/a
Plantings	50%? Mortality due to weather/heat stress
Flora	Dry Rose doing well
Fauna	Avian species noted
Photo-documentation	Taken

Table 8
ESP Site Record

ESP Site Record: Olympic View, City/DNR	
Observational Categories	Dates of Site Visits 8/13/09
Human Impacts	none noted
Erosion	Some noted on west side of salt marsh entrance
Weeds	Heavy population of invasives along perimeter goose exclusion
Fencing	Good condition
Plantings	Recent planting of salt marsh - will need to watch for survivability in spring
Flora	Rose doing well
Fauna	Avian species noted. Rabbits and fish also noted
Photo-documentation	Taken

Table 9
ESP Site Record

ESP Site Record: Tahoma Salt Marsh	
Observational Categories	Dates of Site Visits 8/12/09
Human Impacts	Continued vandalism to sprinkler system. Minor trash
Erosion	Some noted associated with logs and mouth
Weeds	Small areas of tansy, nightshade, blackberry, thistle
Fencing	Good condition
Plantings	Dry Could use some additional plants on the island.
Flora	Doing well. Salt marsh plants filling in slowly.
Fauna	Avian species noted. Rabbit
Photo-documentation	Taken

Table 10
ESP Site Record

ESP Site Record: Swan Creek	
Observational Categories	Dates of Site Visits
	8/19/09
Human Impacts	Trails established by fisherman, social. Some trash noted at north end and south end.
Erosion	None noted - flow continues to be modified by beaver activity
Weeds	Heavy areas of blackberry and reed canary grass. Minor areas of scott's broom, morning glory, knotweed
Fencing	Fair condition. North fencing recently replaced to deter further dumping
Plantings	Minor damage by beaver.
Flora	Great coverage near stream and channels.
Fauna	Beaver. Avian species noted
Photo-documentation	Taken



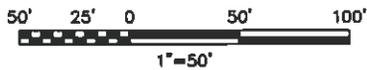
150' 75' 0 150' 300'
1"=150'

YOWKWALA

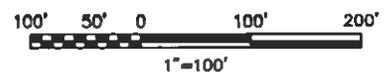


50' 25' 0 50' 100'
1" = 50'

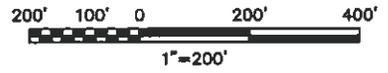
SKOOKUM WULGE



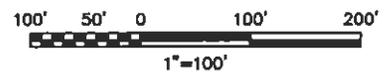
SQUALLY BEACH



MOWITCH - HEAD OF HYLEBOS



JORDAN/LOWER HYLEBOS MARSH



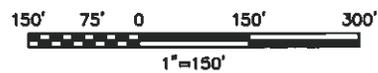
MIDDLE WATERWAY, CITY



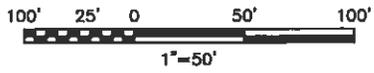
MIDDLE WATERWAY, SIMPSON



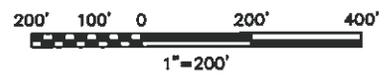
150' 75' 0 150' 300'
1"=150'



OLYMPIC VIEW, CITY & WDNR



TAHOMA SALT MARSH



SWAN CREEK

Attachment 2

Photos and Field Forms



8_6_09 YWK PP1 (looking E)



8_6_09 YWK PP2 (looking E)



8_6_09 YWK PP2 (looking NE)



8_6_09 YWK PP2 (looking NW)



8_6_09 YWK PP2 (looking W)



8_6_09 YWK PP3 (looking E)



8_6_09 YWK PP3 (looking N)



8_6_09 YWK PP3 (looking NE)



8_6_09 YWK PP3 (looking NW)



8_6_09 YWK PP3 (looking W)



8_6_09 YWK PP4 (looking E)



8_6_09 YWK PP4 (looking NE)



8_6_09 YWK PP4 (looking NW)



8_6_09 YWK PP4 (looking W)



8_6_09 YWK PP5 (looking NW)



8_6_09 YWK PP5 (looking W)



8_6_09 YWK PP6 (looking SW)



8_6_09 YWK PP6 (looking W)



ESP Yowkwala no access sign

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 8/16/09 Time: 9:45am

Year 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): City - D. Pooley, M. Henley

Weather Conditions: overcast, 70°C

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	yes	yes	no
Invasive Species	↓	↓	↓
Volunteer Species	no native noted	gumweed, orache, dune grass	
Survival of recent plantings	none planted.	pinus (2)	none planted.
Plant Damage by animals (percent damage)	none noted		→
Plant Vigor (list species)	madrone	gumweed/dune grass	
Plant Disease/Stress (percent by species)		dry/caterpillars	
Supplemental Planting Needed	yes	yes.	
Human Impacts (general)		* fire pit near trail	
Trash (volume)		minimal - related to high tide/	beach fires
Vandalism (extent)	none noted		→
Perimeter Fencing (condition/maintenance needs)	n/a	n/a	n/a
Goose Exclusion Fencing (condition/maintenance needs)	" "	" "	" "
Large Woody Debris (recruitment, presence)		@ high tide line	
Mulch (quantity needed)	only	needed during projects of cleaning/planting	
Erosion/Sedimentation		none noted.	→

Wildlife Notes (Species observed, other evidence):

geese, fish, seagull, crows, wood pecker, sm finch,

General Comments:

staircase removed recently, sign to be installed w/in week.

• possibly use drill-water for further plantings

invasive species: Pepperweed, Blackberry, Butterfly bush, Scotts broom, dock, pampas grass,

Photo Points (Record Picture # and Time):

Year: 07 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: YWK
Date: 8/6/09

Site:	P 1	P 2	P 3	P 4
	9:45am	9:50am	10:05am	10:35am
P 5	P 6	P	P	P
11:05am	11:15am			
P	P	P	P	P



8_6_09 SKW PP1 (looking S)



8_6_09 SKW PP1 (looking SE)



8_6_09 SKW PP2 (looking N)



8_6_09 SKW PP2 (looking S)



8_6_09 SKW PP2 (looking SW)



8_6_09 SKW PP3 (looking N)



8_6_09 SKW PP3 (looking NE)



8_6_09 SKW PP3 (looking S)



8_6_09 SKW PP3 (looking SE)



8_6_09 SKW PP4 (looking E)



8_6_09 SKW PP4 (looking N)



8_6_09 SKW PP4 (looking NE)



8_6_09 SKW PP5 (looking N)



8_6_09 SKW PP5 (looking NE)



8_6_09 SKW PP6 (looking N)



8_6_09 SKW PP6 (looking S)



8_6_09 SKW PP6 (looking W)

Environmental Stewardship Project Qualitative Ground Survey

Date: 8/6/09 Time: 12:20 pm

Year: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): D Pooley, M. Henley (CITY)

Weather Conditions: overcast, 70°

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general) <u>dominate</u>	<u>few: native BLM</u>	<u>salt grass</u>	<u>algae.</u>
Invasive Species	<u>Bikberry, Ivy, Knotweed.</u>	<u>Pepperweed</u>	<u>n/a</u>
Volunteer Species	<u>none noted</u>	<u>gunweed, salt grass</u>	
Survival of recent plantings	<u>none</u>		
Plant Damage by animals (percent damage)	<u>none noted</u>		
Plant Vigor (list species)	<u>n/a</u>		
Plant Disease/Stress (percent by species)	<u>dry weather</u>		
Supplemental Planting Needed	<u>YES</u>	<u>Yes.</u>	
Human Impacts (general)	<u>none noted</u>		
Trash (volume)	<u>minor</u>	<u>minor - high tide line</u>	
Vandalism (extent)	<u>none noted</u>		
Perimeter Fencing (condition/maintenance needs)	<u>fencing needed when clear (chain/bollard)</u>		
Goose Exclusion Fencing (condition/maintenance needs)	<u>none present</u>		
Large Woody Debris (recruitment, presence)		<u>Yes / yes</u>	
Mulch (quantity needed)	<u>Yes - as needed when planted.</u>		
Erosion/Sedimentation		<u>X yes, shore line still eroding @ pt.</u>	

Wildlife Notes (Species observed, other evidence):

geese, finch, sea gull

General Comments:

Work related - recently complete (see pics) - cleaning & mulching in riparian area (by CHB)

Photo Points (Record Picture # and Time):

Year ~~0~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: SKW *
Date: 8/10/09

Site:	P 1	P 2	P 3	P 4
	12:20 pm	12:25 pm	12:30 pm	12:35 pm
P 5	P 6	P	P	P
12:40 pm	12:45 pm			
P	P	P	P	P



8_6_09 SQB PP0 (looking E)



8_6_09 SQB PP0 (looking N)



8_6_09 SQB PP1 (looking E)



8_6_09 SQB PP1 (looking SE)



8_6_09 SQB PP2 (looking E)



8_6_09 SQB PP2 (looking N)



8_6_09 SQB PP2 (looking NE)



8_6_09 SQB PP2 (looking NW)



8_6_09 SQB PP2 (looking W)



8_6_09 SQB PP3 (looking E)



8_6_09 SQB PP3 (looking S)



8_6_09 SQB PP3 (looking W)



8_6_09 SQB PP4 (looking S)



8_6_09 SQB PP4 (looking SW)



8_6_09 SQB PP4 (looking W)



Squally View corridor clearing from sign to bubbler

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 8/6/09 Time: 1pm

Year 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer Staff): City M Henley, D. Pooley

Weather Conditions: overcast, 70°

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	doing well	doing well	good
Invasive Species	some BB knotweed.	pepperweed	
Volunteer Species		cat tails	pickleweed orsca
Survival of recent plantings	not known.		
Plant Damage by animals (percent damage)	not noted.		
Plant Vigor (list species)	good all species		
Plant Disease/Stress (percent by species)	* dry due to weather		
Supplemental Planting Needed	minor if any	not a priority	
Human Impacts (general)	willow-broken limbs		
Trash (volume)	none noted	→	
Vandalism (extent)	none noted	→	
Perimeter Fencing (condition/maintenance needs)		X = 30' of fencing	needs to be replaced.
Goose Exclusion Fencing (condition/maintenance needs)	none present		
Large Woody Debris (recruitment, presence)		some bark	
Mulch (quantity needed)	none.		
Erosion/Sedimentation		X minor @ shoreline	

Wildlife Notes (Species observed, other evidence):

great blue heron, geese, sea gulls.

General Comments:

Remove netting if possible in Marsh areas
 Replace fencing @ mouth of W marsh. 36'ish
 Knotweed cutting to the W on tribal prop. Needs clean up.

Photo Points (Record Picture # and Time):

Year ~~0~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: 08/6/09 SQB
 Date: _____

Site:	P 1	P 2	P 3	P 4
	1:18 pm	1:20 pm	1:22 pm	1:28 pm
P 0	P	P	P	P
1:15 pm				
P	P	P	P	P



8_6_09 MOW PP1 (looking E)



8_6_09 MOW PP1 (looking N)



8_6_09 MOW PP1 (looking NE)



8_6_09 MOW PP1 (looking SE)



8_6_09 MOW PP2 (looking NE)



8_6_09 MOW PP3 (looking SE)



8_6_09 MOW PP3 (looking SW)



8_6_09 MOW PP4 (looking E)



8_6_09 MOW PP4 (looking N)



8_6_09 MOW PP4 (looking Nw)



8_6_09 MOW PP4 (looking SE)



8_6_09 MOW PP5 (looking E)



8_6_09 MOW PP5 (looking N)



8_6_09 MOW PP5 (looking NE)



8_6_09 MOW PP5 (looking NW)



8_6_09 MOW PP5 (looking SE)



8_6_09 MOW PP6 (looking S)



8_6_09 MOW PP6 (looking SW)



8_6_09 MOW PP7 (looking E)



8_6_09 MOW PP7 (looking N)



8_6_09 MOW PP7 (looking NW)



8_6_09 MOW PP7 (looking SE)



8_6_09 MOW PP8 (looking N)



8_6_09 MOW PP8 (looking NW)

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 08/06/09 Time: 2 pm

Year 01, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): City D. Pooley, M. Henley

Weather Conditions: overcast, 70°

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	<u>dry</u>	<u>doing well</u>	
Invasive Species	<u>BB,</u>	<u>pepperweed</u>	<u>none noted.</u>
		<u>Phragmites</u>	
Volunteer Species		<u>pickleweed, orache, brass buttons.</u>	
Survival of recent plantings	<u>not known</u>		
Plant Damage by animals (percent damage)	<u>none noted.</u>	<u>Some carex pred. - goose?</u>	
Plant Vigor (list species)		<u>All</u>	<u>← pickleweed volunteer</u>
Plant Disease/Stress (percent by species)	<u>too dry</u>	<u>doing well.</u>	
Supplemental Planting Needed		<u>Yes in bare areas.</u>	
Human Impacts (general)	<u>none noted</u>		
Trash (volume)	<u>none noted</u>		
Vandalism (extent)	<u>none noted</u>		
Perimeter Fencing (condition/maintenance needs)	<u>gate needed</u>	<u>if desired.</u>	
Goose Exclusion Fencing (condition/maintenance needs)		<u>near PA needs fixing</u>	
Large Woody Debris (recruitment, presence)		<u>yes - mostly small</u>	
Mulch (quantity needed)	<u>not @ this time.</u>		
Erosion/Sedimentation	<u>none noted.</u>		

Wildlife Notes (Species observed, other evidence):

ducks, geese, bees (wasp? - trig w/ orange section) → Great Gold Digger Wasp.

General Comments:

Remove netting that is exposed (spec. on n. most island)
 Areas of dead alders
 Some (few) pickleweed vol. on islands
 Invasive species: bird's foot trefoil

Photo Points (Record Picture # and Time):

Year ~~0~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: MOW
 Date: 08/06/04 2 pm

Site:	P 1	P 2	P 3	P 4
	2:11 pm	2:12 pm	2:20 pm	2:36 pm
P 5	P 6	P 7	P 8	P
2:52 pm	2:55 pm	3:00 pm	3:05 pm	
P	P	P	P	P



8_6_09 JOR PP1 (looking S)



8_6_09 JOR PP1 (looking SE)



8_6_09 JOR PP2 (looking N)



8_6_09 JOR PP2 (looking NW)



8_6_09 JOR PP2 (looking S)



8_6_09 JOR PP2 (looking SE)



8_6_09 JOR PP3 (looking N)



8_6_09 JOR PP3 (looking S)



8_6_09 JOR PP3 (looking W)



8_6_09 JOR PP4 (looking N)



8_6_09 JOR PP4 (looking NW)



8_6_09 JOR PP4 (looking S)



8_6_09 JOR PP4 (looking SE)



8_6_09 JOR PP5 (looking NW)



8_6_09 JOR PP5 (looking S)



8_6_09 JOR PP5 (looking W)

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 08/06/09 Time: 3:40 pm

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer Staff): City D. Pooley, M. Henley

Weather Conditions: 70°, overcast.

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	good-dry	doing well	
Invasive Species	Blackberry	RCG, P. Loosestrife	
Volunteer Species	not known		
Survival of recent plantings	n/a	n/a	
Plant Damage by animals (percent damage)	willow/beaver-	minimal	
Plant Vigor (list species)	Alder		
Plant Disease/Stress (percent by species)	dry weather		
Supplemental Planting Needed	not needed	unless proj. related	
Human Impacts (general)	some trash		
Trash (volume)	minimal		
Vandalism (extent)	none noted		
Perimeter Fencing (condition/maintenance needs)	good		
Goose Exclusion Fencing (condition/maintenance needs)	n/a	n/a	
Large Woody Debris (recruitment, presence)	n/a	n/a	
Mulch (quantity needed)	n/a	n/a	
Erosion/Sedimentation	none	possible sed. in channels	

Wildlife Notes (Species observed, other evidence):

Great Blue Heron, dragonfly, beaver evidence - possible accumulation by '4th Street' ped. bridge.

General Comments:

People using site, WCC on-site doing maintenance.

Photo Points (Record Picture # and Time):

Year ~~0~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: JOR
 Date: 08/06/09

Site:	P 1	P 2	P 3	P 4
	3:42 pm	3:50 pm	3:51 pm	4:05 pm
P 5	P	P	P	P
4:10 pm				
P	P	P	P	P



8_12_09 MWC 1



8_12_09 MWC PP 1 (looking S)



8_12_09 MWC PP1 (looking SE)



8_12_09 MWC PP1 (looking SW)



8_12_09 MWC PP10 (looking N)



8_12_09 MWC PP10 (looking NE)



8_12_09 MWC PP10 (looking NW)



8_12_09 MWC PP2 (looking E)



8_12_09 MWC PP2 (looking N)



8_12_09 MWC PP2 (looking S)



8_12_09 MWC PP2 (looking W)



8_12_09 MWC PP3 (looking E)



8_12_09 MWC PP3 (looking N)



8_12_09 MWC PP3 (looking S)



8_12_09 MWC PP4 (looking S)



8_12_09 MWC PP4 (looking SW)



8_12_09 MWC PP4 (looking W)



8_12_09 MWC PP5 (looking S)



8_12_09 MWC PP5 (looking W)



8_12_09 MWC PP6 (looking S)



8_12_09 MWC PP6 (looking SE)



8_12_09 MWC PP7 (looking SE)



8_12_09 MWC PP7 (looking W)



8_12_09 MWC PP8 (looking N)



8_12_09 MWC PP8 (looking NE)



8_12_09 MWC PP8 (looking NW)



8_12_09 MWC PP9 (looking SW)



8_12_09 MWC PP9 (looking W)



MWC_fleshy jaumea



MWC_pickleweed

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 8/12/09 Time: 2 pm

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): D. Pooley,

Weather Conditions: Sunny overcast 70°C

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	dry	doing well	
Invasive Species	see list under gen. comments.		
Volunteer Species		jaumea spreading!	
Survival of recent plantings	n/a		
Plant Damage by animals (percent damage)	none noted		
Plant Vigor (list species)	willow.		
Plant Disease/Stress (percent by species)	alder/willow - dead	in side riparian area	
Supplemental Planting Needed	Yes - along F St. & upper marsh.		
Human Impacts (general)	none noted		
Trash (volume)	minor - along perimeter & high tide line		
Vandalism (extent)	none noted.		
Perimeter Fencing (condition/maintenance needs)	good.		
Goose Exclusion Fencing (condition/maintenance needs)	n/a		
Large Woody Debris (recruitment, presence)		Presence - sm.	
Mulch (quantity needed)	may need in	assoc. w/ supp. planting	
Erosion/Sedimentation	none noted.		

Wildlife Notes (Species observed, other evidence):

sea gulls, bee, grasshoppers, dragonfly, Kildeer (babies), GBH rabbit

General Comments:

Invasive: WSC, butterfly bush, pampas grass, nightshade, BB, knapweed.
 Fst. oceanspray, dry, dead. 5
 write letter to boat repair bus. owner.
 DNR access area did not establish well. - lots of invasives in the riparian area.

Photo Points (Record Picture # and Time):

Year 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: MWC
 Date: 8/12/09

Site:	P 1	P 2	P 3	P 4
	2:17 pm	2:30 pm	2:37 pm	2:39 pm
P 5	P 6	P 7	P 8	P 9
2:42 pm	2:48 pm	2:54 pm	3:10 pm	3:03 pm
P 10	P	P	P	P
3:20 pm				



8_12_09 MWS PP1 (looking E)



8_12_09 MWS PP1 (looking N)



8_12_09 MWS PP1 (looking NE)



8_12_09 MWS PP1 (looking SE)



8_12_09 MWS PP2 (looking N)



8_12_09 MWS PP2 (looking S)



8_12_09 MWS PP2 (looking W)



8_12_09 MWS PP3 (looking E)



8_12_09 MWS PP3 (looking N)



8_12_09 MWS PP3 (looking NE)



8_12_09 MWS PP3 (looking S)



8_12_09 MWS PP3 (looking SE)



8_12_09 MWS PP4 (looking N)



8_12_09 MWS PP4 (looking NW)



8_12_09 MWS PP4 (looking S)



8_12_09 MWS PP4 (looking SW)



8_12_09 MWS PP5 (looking N)



8_12_09 MWS PP5 (looking NE)



8_12_09 MWS PP5 (looking W)



8_12_09 MWS PP6 (looking N)



8_12_09 MWS PP6 (looking NE)



8_12_09 MWS PP6 (looking W)

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 8/12/09 Time: 3:40 pm

Year: 01, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): D. Pooley, M. Henley

Weather Conditions: Sunny, overcast, 70°C

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	<u>dry</u>	<u>good - some volunteers</u>	
Invasive Species	<u>pear, SWW Blackberry</u>		
Volunteer Species	<u>some n/a.</u>	<u>some pickleweed.</u>	
Survival of recent plantings	<u>some dead</u>		
Plant Damage by animals (percent damage)	<u>none noted.</u>	<u>some pred. on goose tongue.</u>	
Plant Vigor (list species)	<u>rose</u>		
Plant Disease/Stress (percent by species)	<u>dry weather</u>		
Supplemental Planting Needed	<u>shrubs?</u>		
Human Impacts (general)	<u>minimal trash</u>		
Trash (volume)	<u>minor</u>		
Vandalism (extent)	<u>none noted</u>		
Perimeter Fencing (condition/maintenance needs)	<u>n/a</u>		
Goose Exclusion Fencing (condition/maintenance needs)		<u>removal?</u>	
Large Woody Debris (recruitment, presence)	<u>n/a</u>		
Mulch (quantity needed)	<u>n/a</u>		
Erosion/Sedimentation	<u>none noted</u>		

Wildlife Notes (Species observed, other evidence):

GBH, Killdeer (& young), sea gulls

General Comments:

- Redraw map to reflect prop. line along 11th
- Was dune grass initially planted? doing well

Photo Points (Record Picture # and Time):

Year: 0 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: MWS
Date: 8/12/09

Site:	P 1	P 2	P 3	P 4
	3:45 pm	3:52 pm	4 pm	4:15 pm
P 5	P 6	P	P	P
4:30 pm	4:35 pm			
P	P	P	P	P



8_12_09 OVRA PP1 (looking S)



8_12_09 OVRA PP1 (looking SW)



8_12_09 OVRA PP2 (looking SW)



8_12_09 OVRA PP2 (looking W)



8_12_09 OVRA PP3 (looking NE)



8_12_09 OVRA PP3 (looking SE)



8_12_09 OVRA PP3 (looking SW)



8_12_09 OVRA PP4 (looking NE)



8_12_09 OVRA PP5 (looking N)



8_12_09 OVRA PP5 (looking SW)



8_12_09 OVRA PP6 (looking E)



8_12_09 OVRA PP6 (looking NE)



8_12_09 OVRA PP6 (looking S)



8_12_09 OVRA PP6 (looking SE)



8_12_09 OVRA PP7 (looking N)



8_12_09 OVRA PP7 (looking NW)



8_12_09 OVRA PP7 (looking W)



8_12_09 OVRA PP8 (looking E)



8_12_09 OVRA PP8 (looking NE)



8_12_09 OVRA PP8 (looking SE)

Environmental Stewardship Project Qualitative Ground Survey

Date: 8/12/09 Time: 10:30am

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): D. Pooley, M. Henley

Weather Conditions: overcast, cool, breezy

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	Rose doing well		
Invasive Species	lots on perimeter	Peppercod burdock	
Volunteer Species	fireweed, cottonwood, dill(?)		
Survival of recent plantings	good	OK - need to ✓ in spring	
Plant Damage by animals (percent damage)	none noted	Some predation on tufted hairgrass.	
Plant Vigor (list species)	Rose	just planted	
Plant Disease/Stress (percent by species)	gen. dry stress		
Supplemental Planting Needed	none @ this time.		
Human Impacts (general)	none noted		Possible due to anchoring
Trash (volume)		minor - hightide line	
Vandalism (extent)	none noted.		
Perimeter Fencing (condition/maintenance needs)	good	good	
Goose Exclusion Fencing (condition/maintenance needs)	good	good	
Large Woody Debris (recruitment, presence)		Yes	
Mulch (quantity needed)	none @ this	time.	
Erosion/Sedimentation		Sed or Push of gravels into marsh area of	

*some erosion noted near sign Δ
@ Capital Warehouse
corner.

Wildlife Notes (Species observed, other evidence):

bunny, Caspian terns, fish (salmon), geese, seagulls.

General Comments:

fishing off chore - anchoring (called TPD Marine Unit)
Invasive Species: NSC, BB, SJW, nightshade, tansy, pepperweed.
Salt marsh species recently planted in DNR Δ area.

Photo Points (Record Picture # and Time):

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: OVRA
Date: 8/13/09

Site:	P 1	P 2	P 3	P 4
	10:30 am	10:35 am	10:38 am	10:41 am
P 5	P 6	P 7	P 8	P
10:45 am	11:00 am	11:19 am	10:58.	
P	P	P	P	P



8_12_09 TSM PP1 (looking NE)



8_12_09 TSM PP1 (looking SE)



8_12_09 TSM PP1 (looking SW)



8_12_09 TSM PP2 (looking NE)



8_12_09 TSM PP2 (looking NW)



8_12_09 TSM PP2 (looking SE)



8_12_09 TSM PP2 (looking SW)



8_12_09 TSM PP3 (looking NE)



8_12_09 TSM PP3 (looking NW)



8_12_09 TSM PP3 (looking SE)



8_12_09 TSM PP3 (looking SW)



8_12_09 TSM PP4 (looking NW)



8_12_09 TSM PP4 (looking SW)



8_12_09 TSM PP4 (looking W)



8_12_09 TSM PP5 (looking E)



8_12_09 TSM PP5 (looking NE)



8_12_09 TSM PP5 (looking SW)



8_12_09 TSM PP5 (looking W)



8_12_09 TSM PP6 (looking E)



8_12_09 TSM PP6 (looking NE)



8_12_09 TSM PP6 (looking NW)



8_12_09 TSM PP7 (looking SE)



8_12_09 TSM PP7(looking NE)

**Environmental Stewardship Project
Qualitative Ground Survey**

Date: 8/12/09 Time: 9:40 am

Year: 10 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (~~MOW~~), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): D. Pooley, M. Henley

Weather Conditions: raining, 65°C, overcast.

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	<u>alder dom.</u>	<u>filling-in slowly</u>	
Invasive Species	<u>see gen. comm.</u>		
Volunteer Species		<u>pickleweed</u>	
Survival of recent plantings	<u>n/a</u>	<u>good, patchy - get list</u>	<u>from CHB</u>
Plant Damage by animals (percent damage)	<u>none noted</u>		
Plant Vigor (list species)	<u>RA, RFC</u>		
Plant Disease/Stress (percent by species)	<u>dry on island.</u>		
Supplemental Planting Needed	<u>some on island.</u>		
Human Impacts (general)	<u>none noted</u>		
Trash (volume)	<u>n/a</u>	<u>minor</u>	
Vandalism (extent)	<u>sprinkler sys - minor</u>		
Perimeter Fencing (condition/maintenance needs)	<u>see gen. comm</u>		
Goose Exclusion Fencing (condition/maintenance needs)		<u>good</u>	
Large Woody Debris (recruitment, presence)		<u>some - mostly smaller</u>	
Mulch (quantity needed)	<u>OK</u>	<u>n/a</u>	<u>n/a</u>
Erosion/Sedimentation		<u>some around logs & mouth</u>	

Wildlife Notes (Species observed, other evidence):

rabbit, geese,

General Comments:

invasives - tansy, nightshade, blackberry, thistle

Remove wood - plywood w/nails

log needs to be secured in place.

pull grass from plants

fencing removed from CRP side. - lots of fill to \approx 1ft of T&M elev.

Current CRP construction (Phase II)

Photo Points (Record Picture # and Time):

Year ~~0~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site:

T&M

Date:

7/12/09

Site:	P 1	P 2	P 3	P 4
	9:45 am	9:53 am	9:58 am	10:31 am
P 5	P 6	P 7	P	P
10:30 am	10:32 am	10:59 am		
P	P	P	P	P



8_19_09 SWAN PP1 (looking N)



8_19_09 SWAN PP1 (looking NE)



8_19_09 SWAN PP1 (looking SE)



8_19_09 SWAN PP2 (looking NW)



8_19_09 SWAN PP2 (looking S)



8_19_09 SWAN PP2 (looking SE)



8_19_09 SWAN PP3 (looking E)



8_19_09 SWAN PP3 (looking NE)



8_19_09 SWAN PP3 (looking W)



8_19_09 SWAN PP4 (looking E)



8_19_09 SWAN PP4 (looking N)



8_19_09 SWAN PP4 (looking S)



8_19_09 SWAN PP5 (looking N)



8_19_09 SWAN PP5 (looking NW)



8_19_09 SWAN PP6 (looking N)



8_19_09 SWAN PP6 (looking S)

Environmental Stewardship Project Qualitative Ground Survey

Date: 8/19/09 Time: 11:58 am

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site (circle): Yowkwala (YWK), Skookum Wulge (SKW), Squally Beach (SQB), Mowitch (MOW), Jordan/Lower Hylebos Marsh (JOR), Middle Waterway - Simpson (MWS), Middle Waterway - City (MWC), Olympic View (OVRA), Tahoma Salt Marsh (TSM), Swan Creek (SWN)

Steward(s) Present (Volunteer, Staff): M. Henley, D. Poolley

Weather Conditions: sunny, 80°

Qualitative Observations:

	Hillslope/Riparian	Backshore/Marsh	Beach (below 9 MLLW)
Vegetation (general)	<u>dry</u>	<u>good</u>	
Invasive Species	<u>see gen. comm.</u>		
Volunteer Species	<u>lots - Alder/Cottonwood</u>		
Survival of recent plantings	<u>no end by access trail - 80+% due to dri-water install.</u>		
Plant Damage by animals (percent damage)	<u>minor - beaver</u>		
Plant Vigor (list species)	<u>Alder → all species near channel, it - OR grape</u>		
Plant Disease/Stress (percent by species)	<u>dry - some mortality of established plants.</u>		
Supplemental Planting Needed	<u>In areas - yes</u>		
Human Impacts (general)	<u>trails - social, fishing use.</u>		
Trash (volume)	<u>some</u>		
Vandalism (extent)	<u>large collection of candles/matches near no end</u>		
Perimeter Fencing (condition/maintenance needs)	<u>chain & bollard @ n end needs replacing.</u>		
Goose Exclusion Fencing (condition/maintenance needs)	<u>n/a</u>		
Large Woody Debris (recruitment, presence)	<u>n/a</u>		
Mulch (quantity needed)	<u>yes on recently cut step blackberry near no end.</u>		
Erosion/Sedimentation	<u>some near channel A entrance</u>		

OK

Wildlife Notes (Species observed, other evidence):

trails, fish, beaver (smell, trails dams, lodges, cutting activity)
 ducks, bees - in ground & hive on ground.

General Comments:

entrance to Channel A silted in > 40% - still fish passage
 Inv. Species - Scotts broom, blackberry, morning glory, RCC7, knotweed.
 Channel A - little to no flow, weir covered w/ 6" water
 PCO sedimentation pond upstream - recent maint/dredging.
 Fence protecting northern access pt. needs to be fixed.

Photo Points (Record Picture # and Time):

Year: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Site: SWM
 Date: 8/19/07

Site:	P 1	P 2	P 3	P 4
	11:52 am	11:58 am	12:05 pm	12:15 pm
P 5 *	P 6	P	P	P
12:30 pm	1:31 pm			
P	P	P	P	P

*Note temporary location due to accessibility - currently impaired by underground bee's nests. Will re-establish

Adaptive Management Treatment/Solution - Proposed List

Site Code	Description (zone, species/asset, need)	Labor Estimate	Materials Estimate
SWN	Rip-Pioneer, additional plants needed on road side slope cleared of blackberry	≈ 1 day (WCC)	plants - dr water - WCC labor -
SWN	Rip-Pioneer, maint. needed to keep blackberry, ivy at bay.	≈ 4 day (WCC)	
SWN	Fix fence @ no. end to prevent dumping/ access. #####	≈ 1/2 day (WCC)	concrete - 6 bags ≈ \$25 chain - WCC labor -
SWN	Channel A E/W bank invasive species control. - compost on site.	≈ 4 days (WCC)	

/ done

Attachment 3

Task List

Environmental Stewardship Project
2010 Proposed Task List

Site	Category	Zone	Task Description	Priority	Timing
				1,2,3	Spr, S, F, W
Yowkwala	Invasive Species	Beach/Backshore	Control Pepperweed population	1	Spr, F
Yowkwala	Invasive Species	Beach/Backshore	Remove additional invasive species as directed. Species present include butterfly bush, poison oak, blackberry, pampas grass, Scotch broom and dock	1	On-going
Yowkwala	Human Impacts	Hillslope	Regrade, mulch and plant social trail from treeline down to beach	2	F
Yowkwala	Supplemental Planting	Backshore	Increase plant diversity of backshore areas	2	F
Yowkwala	Supplemental Planting	Backshore	Remove Invasives and replant burned area	2	F
Yowkwala	Human Impacts	Beach	Dismantle/Remove beach "party house"	3	Tide related
Skookum Wulge	Invasive Species	Backshore	Control Pepperweed population	1	Spr, F
Skookum Wulge	Invasive Species	Uplands	Remove additional Invasive species as directed. Species present include blackberry, knotweed, nightshade, morning glory, and ivy.	1	S,F
Skookum Wulge	Supplemental Planting	Uplands	Place topsoil as needed following invasive removal and prior to planting.	1	F
Skookum Wulge	Supplemental Planting	Uplands	Provide erosion control, and replant with native species. Possible use of dri-water for irrigation.	1	F,Spr
Skookum Wulge	Fencing	Uplands	Place perimeter fencing (chain and bollard) following replanting of upland areas to help prevent dumping.	1	F, W
Skookum Wulge	Erosion	Beach/Uplands	Create conceptual design and estimate for placement of LWD on beach in front of erosional areas	2	S
Skookum Wulge	Supplemental Planting	Backshore Embayment	Enhance beach plant community	3	Spr
Squally Beach	Invasive Species	Marsh/Islands	Control Pepperweed population	1	Spr, F
Squally Beach	Invasive Species	Woods/Alder Grove	Remove additional invasive species as directed. Species present include knotweed and blackberry	1	On-going
Squally Beach	Invasive Species	West Woods/Tribal Property	Inject knotweed population to the west to control encroachment onto site (phased approach over time)	1	S, F
Squally Beach	Fencing/Erosion	Islands/Beach	Repair 30 feet of wood debris exclusion fencing at mouth of the west marsh	2	F
Squally Beach	Human Impacts	Marsh	Cut and remove exposed fish netting to the extent it will not damage plants during removal	3	F, Spr
Squally Beach	Supplemental Planting	Islands	Plant islands with high marsh species	3	Spr
Squally Beach	Supplemental Planting	Woods/Alder Grove	Enhance riparian area with additional tree/shrub planting	3	F
Mowitch	Invasive Species	Riparian F1-F7	Control Pepperweed population	1	Spr, F
Mowitch	Invasive Species	Riparian F1-F7	Remove additional invasive species as directed. Species present include phragmites, birds-foot trefoil, and St. John's Wort.	1	On-going
Mowitch	Invasive Species/Plant Vigor	Riparian F1-F7	Weed and spot mulch around native plants in the riparian area	2	F
Mowitch	Fencing	Riparian F1-F7/Marsh	Remove goose exclusion fencing where plant establishment has been successful. Repair as needed in areas where it is to be left in place.	2	On-going
Mowitch	Supplemental Planting	Riparian F1-F7	Enhance riparian area by planting both native shrubs and canopy species	2	F
Mowitch	Supplemental Planting	Marsh	Expand planting areas on the islands with the successful sail marsh species	2	Spr
Mowitch	Fencing	Riparian F-1	Install gate to property	3	
Mowitch	Human Impacts	Marsh	Cut and remove exposed fish netting to the extent it will not damage plants during removal	3	F, Spr
Jordan	Invasive Species	Marsh	Control purple loosestrife population	1	S

Environmental Stewardship Project
2010 Proposed Task List

Jordan	Invasive Species	Riparian	Continue to keep blackberry at bay to the north of restored area (i.e. on side of trail away from creek)	1	W, Spr
Jordan	Invasive Species	Marsh/Uplands	Remove additional invasive species as directed. Species present include reed canary grass and blackberry. C	1	On-going
Jordan	Plant Vigor	Uplands	Thinning of alder. (Criteria proposed - clearing of alder in a 3 foot radius around planted native species, thinning the limbs).	1	Spr, S
Middle Waterway - Simpson	Invasive Species	Uplands	Remove Invasive species as directed. Species present include pea, St. John's Wort, and blackberry.	1	On-going
Middle Waterway - Simpson	Mutch	North Bank/SouthBank	Mulch riparian area focusing on the newest of plantings.	2	F, W
Middle Waterway - Simpson	Supplemental Planting	North Bank/SouthBank	Plant riparian area with both shrubs and trees	2	F
Middle Waterway - Simpson	Fencing/Supplemental Planting	Sandspury Beach	Extend goose exclusion and plant new salt marsh areas	2	Spr
Middle Waterway - City	Invasive Species	Riparian	Remove invasive species as directed. Species present include white sweet clover, butterfly bush, pampas grass, nightshade, blackberry, reed canary grass, and spotted knapweed.	1	On-going
Middle Waterway - City	Supplemental Planting	Riparian/Upper Marsh	Enhance riparian areas with conifers along East F St. and along the back side of the substation	1	F
Middle Waterway - City	Plant Vigor	Riparian	Maintain trail to sign	3	Spr
Middle Waterway - City	Aesthetics	Riparian	Cut vegetation back 3-6 feet from sidewalks on East 11th St.	3	Spr
Olympic View - City/DNR	Invasive Species	Riparian/Beach	Control Pepperweed population	1	Spr, F
Olympic View - City/DNR	Invasive Species	Riparian/Beach/Triangle perimeter	Remove additional invasive species as directed. Species present include lansy ragwort, burdock, nightshade, blackberry, St. John's Wort, and white sweet clover	1	On-going
Olympic View - City/DNR	Plant Vigor	Riparian/Triangle	Thin out cottonwood. Possibly transplant to front of Capital warehouse walkway	1	F
Olympic View - City/DNR	Supplemental Planting	Riparian	Add to riparian species diversity and area	2	F
Olympic View - City/DNR	Supplemental Planting?	Beach/Marsh	Watch salt marsh plantings - may need additional plantings if survivability is low	1	Spr, F
Olympic View - City/DNR	Erosion	Beach/Marsh	Monitor sedimentation/erosion in salt marsh and beach shift	2	S, W
Tahoma Salt Marsh	Invasive Species	Marsh	Control Pepperweed population	1	Spr, F
Tahoma Salt Marsh	Invasive Species	Riparian	Remove additional invasive species as directed. Species present include lansy ragwort, nightshade, blackberry, and thistle	1	On-going
Tahoma Salt Marsh	Large Woody Debris	Marsh	Re-anchor large woody debris in place	1	F
Tahoma Salt Marsh	Trash	Marsh	Remove wood (plywood with nails)	1	F
Tahoma Salt Marsh	Plant Vigor	Riparian	Pull grass away from plants	1	F
Tahoma Salt Marsh	Supplemental Planting	Marsh	Add plant diversity to salt marsh area	2	Spr
Swan Creek	Invasive Species	Riparian/East and West Bank	Remove Invasive species as directed. Species present include Scotch broom, morning glory, blackberry, reed canary grass, knotweed	1	On-going
Swan Creek	Fencing	Riparian	Chain and bollard fence at north end needs to be replaced to prevent dumping	2	F, Spr
Swan Creek	Supplemental Planting	Riparian	Additional plants needed on roadside slope where invasives have been cleared	2	F, Spr
All Sites	General		Cover rebar tops with caps	1	On-going
All Sites	General		Re-establish photopoint monitoring locations as needed with GPS	1	On-going
All Sites	General		Garbage pickup (in accordance with SOW)	1	On-going
All Sites	General		Locate marsh stock suppliers	2	On-going
All Sites	General		Clean signs as needed	2	On-going

Attachment 4

Financial Summary

Consolidated Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Capital Outlay	Grand Total
Project Management (-01)	\$3,060.63	\$0.00	\$0.00	\$3,060.63
Reporting and Documentation (-02)	\$2,061.08	\$0.00	\$0.00	\$2,061.08
Sub Total*	\$5,121.71	\$0.00	\$0.00	\$5,121.71
Site Monitoring (-xx-01)	\$0.00	\$0.00	\$0.00	\$0.00
Site Maintenance (-xx-02)	\$0.00	\$0.00	\$0.00	\$0.00
WCC Crew (\$45.67/hr)	\$867.73	\$0.00	\$0.00	\$867.73
Adaplive Maintenance (-xx-03)	\$0.00	\$0.00	\$0.00	\$0.00
General Maintenance and Monitoring (-30)	\$0.00	\$0.00	\$0.00	\$0.00
Sub Total	\$867.73	\$0.00	\$0.00	\$867.73
Grand Total	\$5,989.44	\$0.00	\$0.00	\$5,989.44

Life to 06/30/09

Personal Service	Supplies & Service	Capital Outlay	Grand Total
\$3,060.63	\$0.00	\$0.00	\$3,060.63
\$2,061.08	\$0.00	\$0.00	\$2,061.08
\$5,121.71	\$0.00	\$0.00	\$5,121.71
\$0.00	\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00	\$0.00
\$867.73	\$0.00	\$0.00	\$867.73
\$0.00	\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00	\$0.00
\$867.73	\$0.00	\$0.00	\$867.73
\$5,989.44	\$0.00	\$0.00	\$5,989.44

* Total can not exceed \$29,535.

ESP Financing Summary - ENV-00371 - Environmental Stewardship Project (ESP)

Project Task	Capital Outlay	Grand Total
ESP Financing (-20)	\$388,000.00	\$388,000.00
Payment to NOAA	(\$30,000.00)	(\$30,000.00)
Payment to EPA	(\$89,500.00)	(\$89,500.00)
Transferred to Escrow	\$286,500.00	\$286,500.00
Credit Received	\$0.00	\$0.00
Balance Available	\$286,500.00	\$286,500.00

Capital Outlay	Grand Total
\$388,000.00	\$388,000.00
(\$30,000.00)	(\$30,000.00)
(\$89,500.00)	(\$89,500.00)
\$286,500.00	\$286,500.00
\$0.00	\$0.00
\$286,500.00	\$286,500.00

Project Management Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Capital Outlay	Grand Total
Project Management (-01)	\$3,060.63	\$0.00	\$0.00	\$3,060.63

Life to 06/30/09

Personal Service	Supplies & Service	Capital Outlay	Grand Total
\$3,060.63	\$0.00	\$0.00	\$3,060.63

Layout
Object
Cost Element
Posting Date

/1SAP
PRJ ENV-00371
5190000 To 5490000
01/01/2008 To 06/30/2009

City's standard layout - DO NOT CHANGE
Environmental Stewardship Proj
Int-Labor from Proj...

Posting Date	Object	Cost Elem	Cost element name	Val in \$	Employee/Job	Actual Subject
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	227.10		ENV-00371-02
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	537.25		ENV-00371-01
11/03/2008	ENV-00371	5190000	Int-Labor from Proj	767.50		ENV-00371-01
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	515.04		ENV-00371-01
09/29/2008	ENV-00371	5190000	Int-Labor from Proj	386.28		ENV-00371-01
11/03/2008	ENV-00371	5190000	Int-Labor from Proj	772.56		ENV-00371-01
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	1,833.98		ENV-00371-02
02/23/2009	ENV-00371	5190000	Int-Labor from Proj	80.85		ENV-00371-01
03/13/2009	ENV-00371	5190000	Int-Labor from Proj	1.15		ENV-00371-01
09/03/2008	ENV-00371	5490000	Int-Misc from Proj	388,000.00		ENV-00371-20
*	ENV-00371			393,121.71		
10/14/2008	ENV-00371-01	5195000	Act-Labor Regular	307.00	Mary L Henley	521600/L20830
10/15/2008	ENV-00371-01	5195000	Act-Labor Regular	230.25	Mary L Henley	521600/L20830
10/16/2008	ENV-00371-01	5195000	Act-Labor Regular	76.75	Mary L Henley	521600/L20830
10/24/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
10/29/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
10/30/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
11/05/2008	ENV-00371-01	5195000	Act-Labor Regular	76.75	Mary L Henley	521600/L20830
11/07/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
09/24/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
09/25/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
10/01/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
10/08/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
10/14/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
10/21/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
11/05/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
11/06/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	80.85	Mary L Henley	521600/L20830
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	80.85	Mary L Henley	521600/L20830
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	82.00	Mary L Henley	521600/L20830
*	ENV-00371-01			3,060.63		
11/03/2008	ENV-00371-02	5195000	Act-Labor Regular	136.26	Sandra L Holdener	521600/L07420
11/06/2008	ENV-00371-02	5195000	Act-Labor Regular	90.84	Sandra L Holdener	521600/L07420
11/10/2008	ENV-00371-02	5195000	Act-Labor Regular	137.12	Michael Amundson	523400/L20100
10/28/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/29/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/30/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/31/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
11/05/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
11/06/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
11/07/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
*	ENV-00371-02			2,061.08		
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	89,500.00		ENV-00371-20-01
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	268,500.00		ENV-00371-20-02
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	30,000.00		ENV-00371-20-03
*	ENV-00371-20			388,000.00		
08/25/2008	ENV-00371-20-01	5420000	Injury Damage & Judg	89,500.00		
*	ENV-00371-20-01			89,500.00		
08/22/2008	ENV-00371-20-02	5420000	Injury Damage & Judg	268,500.00		
*	ENV-00371-20-02			268,500.00		
08/25/2008	ENV-00371-20-03	5420000	Injury Damage & Judg	30,000.00		
*	ENV-00371-20-03			30,000.00		

Reporting and Documentation Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Grand Total
Reporting and Documentation (-02)	\$2,061.08	\$0.00	\$2,061.08

Life to 06/30/09

Personal Service	Supplies & Service	Grand Total
\$2,061.08	\$0.00	\$2,061.08

Layout /1SAP City's standard layout - DO NOT CHANGE
 Object PRJ ENV-00371 Environmental Stewardship Proj
 Cost Element 5190000 To 5490000 Int-Labor from Proj...
 Posting Date 01/01/2008 To 06/30/2009

Date	Object	Cost Elem.	Cost element name	Val. in \$	Employee/app. name	Partner object
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	227.10		ENV-00371-02
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	537.25		ENV-00371-01
11/03/2008	ENV-00371	5190000	Int-Labor from Proj	767.50		ENV-00371-01
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	515.04		ENV-00371-01
09/29/2008	ENV-00371	5190000	Int-Labor from Proj	386.28		ENV-00371-01
11/03/2008	ENV-00371	5190000	Int-Labor from Proj	772.56		ENV-00371-01
12/01/2008	ENV-00371	5190000	Int-Labor from Proj	1,833.98		ENV-00371-02
02/23/2009	ENV-00371	5190000	Int-Labor from Proj	80.85		ENV-00371-01
03/13/2009	ENV-00371	5190000	Int-Labor from Proj	1.15		ENV-00371-01
09/03/2008	ENV-00371	5490000	Int-Misc from Proj	388,000.00		ENV-00371-20
	ENV-00371			393,121.71		
10/14/2008	ENV-00371-01	5195000	Act-Labor Regular	307.00	Mary L Henley	521600/L20830
10/15/2008	ENV-00371-01	5195000	Act-Labor Regular	230.25	Mary L Henley	521600/L20830
10/16/2008	ENV-00371-01	5195000	Act-Labor Regular	76.75	Mary L Henley	521600/L20830
10/24/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
10/29/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
10/30/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
11/05/2008	ENV-00371-01	5195000	Act-Labor Regular	76.75	Mary L Henley	521600/L20830
11/07/2008	ENV-00371-01	5195000	Act-Labor Regular	153.50	Mary L Henley	521600/L20830
09/24/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
09/25/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
10/01/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
10/08/2008	ENV-00371-01	5195000	Act-Labor Regular	128.76	Desiree K Pooley	521600/L20930
10/14/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
10/21/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
11/05/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
11/06/2008	ENV-00371-01	5195000	Act-Labor Regular	257.52	Desiree K Pooley	521600/L20930
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	80.85	Mary L Henley	521600/L20830
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	80.85	Mary L Henley	521600/L20830
01/13/2009	ENV-00371-01	5195000	Act-Labor Regular	82.00	Mary L Henley	521600/L20830
	ENV-00371-01			3,060.63		
11/03/2008	ENV-00371-02	5195000	Act-Labor Regular	136.26	Sandra L Holdener	521600/L07420
11/06/2008	ENV-00371-02	5195000	Act-Labor Regular	90.84	Sandra L Holdener	521600/L07420
11/10/2008	ENV-00371-02	5195000	Act-Labor Regular	137.12	Michael Amundson	523400/L20100
10/28/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/29/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/30/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
10/31/2008	ENV-00371-02	5195000	Act-Labor Regular	308.52	Michael Amundson	523400/L20100
11/05/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
11/06/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
11/07/2008	ENV-00371-02	5195000	Act-Labor Regular	154.26	Michael Amundson	523400/L20100
	ENV-00371-02			2,061.08		
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	89,500.00		ENV-00371-20-01
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	268,500.00		ENV-00371-20-02
09/03/2008	ENV-00371-20	5490000	Int-Misc from Proj	30,000.00		ENV-00371-20-03
	ENV-00371-20			388,000.00		
08/25/2008	ENV-00371-20-01	5420000	Injury Damage & Judg	89,500.00		
	ENV-00371-20-01			89,500.00		
08/22/2008	ENV-00371-20-02	5420000	Injury Damage & Judg	268,500.00		
	ENV-00371-20-02			268,500.00		
08/25/2008	ENV-00371-20-03	5420000	Injury Damage & Judg	30,000.00		
	ENV-00371-20-03			30,000.00		

Middle Waterway-City of Tacoma Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Grand Total
Site Monitoring (-xx-01)	\$0.00	\$0.00	\$0.00
Site Maintenance (-xx-02)	\$0.00	\$0.00	\$0.00
WCC Crew (\$45.67/hr)	\$365.36	\$0.00	\$365.36
Adaptive Maintenance (-xx-03)	\$0.00	\$0.00	\$0.00
Grand Total	\$365.36	\$0.00	\$365.36

Life to 06/30/09

Personnel Service	Supplies & Service	Grand Total
\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00
\$365.36	\$0.00	\$365.36
\$0.00	\$0.00	\$0.00
\$365.36	\$0.00	\$365.36

Tacoma Hours

Month: June

Year: 2009

Project Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
48th St Bioswale																																0
Celebration Park															3	10	9	10				10			8							50
Cig. Butt Disposal																									2							2
Ecology Hours								10	10	10	10																					40
Esplanade	3		6												4																13	
Guadalupe Gardens																							9	10							19	
Head of Thea Foss																												8			8	
Hylebos																															0	
Interviews																															0	
Johnny's Dock																													2		2	
Jordan-Hylebos																															0	
Log Step																															0	
Meet w/CHB																															0	
Middlewaterway City			8																												8	
Middlewaterway Simpson																															0	
Middlewaterway Tideflat																															0	
North Beach																															0	
Olympic View	5	1																													6	
Paperwork/Safety Meeting		1														1							1								3	
PCD Water Quality			3																												3	
Puyallup River Side Channel																													10		10	
Resume																															0	
Skookum Wuldge																															0	
Squally																															0	
Surface/Storm Water				1	8																										9	
Swan Creek				2																											2	
Tahoma Salt Marsh															3																3	
Titlow Daylight																															0	
Tool Maintenance																															0	
Visscher Rain Garden	2																														2	
Yowkwala																															0	
Total Hours	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	0	180



Olympic View / OVRA Triangle Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Grand Total
Site Monitoring (-xx-01)	\$0.00	\$0.00	\$0.00
Site Maintenance (-xx-02)	\$0.00	\$0.00	\$0.00
WCC Crew (\$45.67/hr)	\$274.02	\$0.00	\$274.02
Adaptive Maintenance (-xx-03)	\$0.00	\$0.00	\$0.00
Grand Total	\$274.02	\$0.00	\$274.02

Life to 06/30/09

Personnel Service	Supplies & Service	Grand Total
\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00
\$274.02	\$0.00	\$274.02
\$0.00	\$0.00	\$0.00
\$274.02	\$0.00	\$274.02

Tacoma Hours

Month: June

Year: 2009

Project Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total
48th St Bioswale																															0	
Celebration Park															3	10	9	10				10			8						50	
Cig. Butt Disposal																									2						2	
Ecology Hours								10	10	10	10																				40	
Esplanade	3		6												4																13	
Guadalupe Gardens																							9	10							19	
Head of Thea Foss																												8			8	
Hylebos																															0	
Interviews																															0	
Johnny's Dock																												2			2	
Jordan-Hylebos																															0	
Log Step																															0	
Meet w/CHB																															0	
Middlewaterway City			8																												8	
Middlewaterway Simpson																															0	
Middlewaterway Tideflat																															0	
North Beach																															0	
Olympic View	5	1																													6	
Paperwork/Safety Meeting		1														1							1								3	
PCD Water Quality			3																												3	
Puyallup River Side Channel																													10		10	
Resume																															0	
Skookum Wuldge																															0	
Squally																															0	
Surface/Storm Water				1	8																										9	
Swan Creek				2																											2	
Tahoma Salt Marsh															3																3	
Titlow Daylight																															0	
Tool Maintenance																															0	
Visscher Rain Garden	2																														2	
Yowkwala																															0	
Total Hours	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	0	180



Tahoma Salt Marsh Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Life to 06/30/09

Project Task	Personnel Service	Supplies & Service	Grand Total
Site Monitoring (-xx-01)	\$0.00	\$0.00	\$0.00
Site Maintenance (-xx-02)	\$0.00	\$0.00	\$0.00
WCC Crew (\$45.67/hr)	\$137.01	\$0.00	\$137.01
Adaptive Maintenance (-xx-03)	\$0.00	\$0.00	\$0.00
Grand Total	\$137.01	\$0.00	\$137.01

Personal Service	Supplies & Service	Grand Total
\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00
\$137.01	\$0.00	\$137.01
\$0.00	\$0.00	\$0.00
\$137.01	\$0.00	\$137.01

Tacoma Hours

Month: June

Year: 2009

Project Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
48th St Bioswale																																0	
Celebration Park															3	10	9	10				10			8							50	
Cig. Butt Disposal																									2							2	
Ecology Hours								10	10	10	10																					40	
Esplanade	3		6												4																13		
Guadalupe Gardens																							9	10							19		
Head of Thea Foss																												8			8		
Hylebos																																0	
Interviews																																0	
Johnny's Dock																													2		2		
Jordan-Hylebos																																0	
Log Step																																0	
Meet w/CHB																																0	
Middlewaterway City			8																													8	
Middlewaterway Simpson																																0	
Middlewaterway Tideflat																																0	
North Beach																																0	
Olympic View	5	1																														6	
Paperwork/Safety Meeting		1														1							1									3	
PCD Water Quality			3																													3	
Puyallup River Side Channel																													10			10	
Resume																																0	
Skookum Wuldge																																	0
Squally																																	0
Surface/Storm Water			1	8																												9	
Swan Creek				2																												2	
Tahoma Salt Marsh															3																	3	
Titlow Daylight																																	0
Tool Maintenance																																	0
Visscher Rain Garden	2																															2	
Yowkwala																																	0
Total Hours	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	0	180	

Swan Creek Summary - ENV-00371 - Environmental Stewardship Project (ESP)

08/01/08 through 06/30/09

Project Task	Personnel Service	Supplies & Service	Grand Total
Site Monitoring (-xx-01)	\$0.00	\$0.00	\$0.00
Site Maintenance (-xx-02)	\$0.00	\$0.00	\$0.00
WCC Crew (\$45.67/hr)	\$91.34	\$0.00	\$91.34
Adaptive Maintenance (-xx-03)	\$0.00	\$0.00	\$0.00
Grand Total	\$91.34	\$0.00	\$91.34

Life to 06/30/09

Personal Service	Supplies & Service	Grand Total
\$0.00	\$0.00	\$0.00
\$0.00	\$0.00	\$0.00
\$91.34	\$0.00	\$91.34
\$0.00	\$0.00	\$0.00
\$91.34	\$0.00	\$91.34

Tacoma Hours

Month: June

Year: 2009

Project Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total	
48th St Bioswale																																0	
Celebration Park															3	10	9	10					10			8							50
Cig. Butt Disposal																										2							2
Ecology Hours								10	10	10	10																						40
Esplanade	3			6											4																		13
Guadalupe Gardens																								9	10								19
Head of Thea Foss																													8				8
Hylebos																																	0
Interviews																																	0
Johnny's Dock																													2				2
Jordan-Hylebos																																	0
Log Step																																	0
Meet w/CHB																																	0
Middlewaterway City			8																														8
Middlewaterway Simpson																																	0
Middlewaterway Tideflat																																	0
North Beach																																	0
Olympic View	5	1																															6
Paperwork/Safety Meeting		1														1							1										3
PCD Water Quality			3																														3
Puyallup River Side Channel																													10				10
Resume																																	0
Skookum Wuldge																																	0
Squally																																	0
Surface/Storm Water				1	8																												9
Swan Creek				2																													2
Tahoma Salt Marsh															3																		3
Titlow Daylight																																	0
Tool Maintenance																																	0
Visscher Rain Garden	2																																2
Yowkwala																																	0
Total Hours		10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	10	10	0	0	0	10	10	0	180

