

Table 1. Potential Data Gaps for Slip 4 Characterization (reprinted from SEA 2004).

Potential Data Gap <sup>1</sup>	Collect Additional Data/Priority	Rationale	Anticipate Data Will Be Generated By	Anticipate Data Will Be Generated In
Bathymetry	No/Low	Data collected by LDWG in 2003 are adequate (see Section 2.2).	NA	NA
Bank Elevations and Slopes	Yes/High	Data for areas above +5 ft MLLW needed to generate engineering drawings, calculate remediation volumes, develop remediation options	EE/CA PRPs	2005
Sediment Transport Study	No/Low	A sediment transport study is being performed for the LDW. The information obtained from this study will be evaluated, as appropriate, for Slip 4. A specific study is not warranted in Slip 4 due to its depositional nature (see Section 2.6).	NA	NA
Pollutant Source Information	Yes/High	Evaluate ongoing sources in basin to assess potential for recontamination (see Section 3).	City and County Source Control Programs, Ecology	2004/2005
Water Quality Data	No/Low	General Duwamish River water quality information is sufficient (see Section 4).	NA	NA
Surface Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize surface sediment chemical distributions (see Section 5.1).	City/County	2004
Subsurface Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize subsurface sediment chemical distributions (see Section 5.1).	City/County	2004
Intertidal/Bank Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize intertidal and bank sediment quality and assess potential to impact Slip 4 sediments (see Section 5.1).	City/County	2004
Sediment Toxicity	Maybe/Medium	Toxicity testing of surface sediments may occur if surface sediment concentrations (with the exception of total PCBs) exceed the CSL and if the area in question is not already a strong candidate for cleanup.	City/County	TBD
Geotechnical Data	Yes/High	Data on sediment type and strength are needed to evaluate potential remediation alternatives.	City/County	2004
Groundwater Data	No/Low <sup>2</sup>	Based on existing groundwater data, there is no evidence that groundwater may impact Slip 4 sediments (see Sections 3.2 and 3.7).	NA	NA

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Seep Chemical Data	No/Low <sup>2</sup>	Based on existing groundwater data there is no evidence that groundwater may impact Slip 4 sediments (see Sections 3.2 and 3.7).	NA	NA
Habitat Assessment	No/Low	Existing information and future LDWG bathymetric data will provide necessary information (see Section 6).	NA	NA

<sup>1</sup>Benthic community, tissue, and porewater data have not been identified as data gaps in Slip 4.

<sup>2</sup>Data collection not currently required, but future collection may be warranted based on results of source control evaluations.

NA: not applicable

TBD: to be determined

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Intertidal Surface Grab	SG01	Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Evaluates contamination at the head of the slip near the Georgetown Flume and I-5 storm drain outfalls.	1273471	199464
Intertidal Surface Grab	SG02	Evaluates contamination at the head of the slip near the Slip 4 emergency overflow/storm drain, Slip 4 storm drain, and East Marginal Way emergency overflow. Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Co-located with a subsurface core.	1273509	199436
Intertidal Surface Grab	SG03	Evaluates contamination near the head of the slip near five outfalls. Located near historical data point with limited analyte list and non-standard PCB method.	1273490	199346
Subtidal Surface Grab	SG04	Evaluates previously unsampled area off Crowley dock. Part of cross-slip transect. Located off 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)].	1273422	199285
Subtidal Surface Grab	SG05	Part of cross-slip transect to assess distribution of contaminants. Co-located with a subsurface core. Near outfall.	1273482	199271
Intertidal Surface Grab	SG06	Part of cross-slip transect to assess distribution of contaminants. Located near historical data point of undocumented quality.	1273541	199273
Subtidal Surface Grab	SG07	Evaluates previously unsampled area off Crowley dock. Co-located with a subsurface core.	1273393	199158
Intertidal Surface Grab	SG08	Evaluates area near private storm drain. Co-located with a subsurface core.	1273490	199138

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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG09	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273332	199042
Subtidal Surface Grab	SG10	Provides information for the center of the slip. Co-located with a subsurface core.	1273406	199034
Subtidal Surface Grab	SG11	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273308	198966
Subtidal Surface Grab	SG12	Located along center line of slip to provide adequate spatial coverage.	1273380	198967
Intertidal Surface Grab	SG13	Located along eastern shoreline to fill spatial data gap.	1273460	198977
Subtidal Surface Grab	SG14	Located within area dredged by Crowley in 1996. Near 8 inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273262	198888
Subtidal Surface Grab	SG15	Near outfall. Co-located with a subsurface core.	1273373	198887
Subtidal Surface Grab	SG16	Located within area dredged by Crowley in 1996. Spatial data gap.	1273196	198833
Subtidal Surface Grab	SG17	Located across slip from SG16. Spatial data gap.	1273313	198793

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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG18	Located within area dredged by Crowley in 1996. Near historical data point with limited analyte list and non-standard PCB method, and near 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273120	198766
Subtidal Surface Grab	SG19	Fills spatial data gap. Co-located with a subsurface core. Near historical data point with limited analyte list and non-standard PCB method.	1273227	198731
Subtidal Surface Grab	SG20	Located within area dredged by Crowley in 1996. Spatial data gap.	1273054	198704
Subtidal Surface Grab	SG21	Located in area dredged by Crowley in 1996 and off an 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Prior to dredging, the area had elevated PAHs. Spatial data gap. Co-located with subsurface core.	1272980	198643
Subtidal Surface Grab	SG22	Located along outer edge of area dredged by Crowley in 1996. Spatial data gap.	1273070	198634
Intertidal Surface Grab	SG23	Located near historical data point of undocumented quality that showed elevated bis(2-ethylhexyl)phthalate. Part of transect that crosses the slip.	1273124	198583
Subtidal Surface Grab	SG24	Located within area dredged by Crowley in 1996. Prior to dredging, the area had elevated PAHs. Located near private storm drain. Part of transect that crosses the slip.	1272813	198600
Subtidal Surface Grab	SG25	Located within area dredged by Crowley in 1996. Spatial data gap. Part of transect that crosses the slip.	1272888	1272888

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Potential Data Gap <sup>1</sup>	Collect Additional Data/Priority	Rationale	Anticipate Data Will Be Generated By	Anticipate Data Will Be Generated In
Bathymetry	No/Low	Data collected by LDWG in 2003 are adequate (see Section 2.2).	NA	NA
Bank Elevations and Slopes	Yes/High	Data for areas above +5 ft MLLW needed to generate engineering drawings, calculate remediation volumes, develop remediation options	EE/CA PRPs	2005
Sediment Transport Study	No/Low	A sediment transport study is being performed for the LDW. The information obtained from this study will be evaluated, as appropriate, for Slip 4. A specific study is not warranted in Slip 4 due to its depositional nature (see Section 2.6).	NA	NA
Pollutant Source Information	Yes/High	Evaluate ongoing sources in basin to assess potential for recontamination (see Section 3).	City and County Source Control Programs, Ecology	2004/2005
Water Quality Data	No/Low	General Duwamish River water quality information is sufficient (see Section 4).	NA	NA
Surface Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize surface sediment chemical distributions (see Section 5.1).	City/County	2004
Subsurface Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize subsurface sediment chemical distributions (see Section 5.1).	City/County	2004
Intertidal/Bank Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize intertidal and bank sediment quality and assess potential to impact Slip 4 sediments (see Section 5.1).	City/County	2004
Sediment Toxicity	Maybe/Medium	Toxicity testing of surface sediments may occur if surface sediment concentrations (with the exception of total PCBs) exceed the CSL and if the area in question is not already a strong candidate for cleanup.	City/County	TBD
Geotechnical Data	Yes/High	Data on sediment type and strength are needed to evaluate potential remediation alternatives.	City/County	2004
Groundwater Data	No/Low <sup>2</sup>	Based on existing groundwater data, there is no evidence that groundwater may impact Slip 4 sediments (see Sections 3.2 and 3.7).	NA	NA

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Seep Chemical Data	No/Low <sup>2</sup>	Based on existing groundwater data there is no evidence that groundwater may impact Slip 4 sediments (see Sections 3.2 and 3.7).	NA	NA
Habitat Assessment	No/Low	Existing information and future LDWG bathymetric data will provide necessary information (see Section 6).	NA	NA

<sup>1</sup>Benthic community, tissue, and porewater data have not been identified as data gaps in Slip 4.

<sup>2</sup>Data collection not currently required, but future collection may be warranted based on results of source control evaluations.

NA: not applicable

TBD: to be determined

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Intertidal Surface Grab	SG01	Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Evaluates contamination at the head of the slip near the Georgetown Flume and I-5 storm drain outfalls.	1273471	199464
Intertidal Surface Grab	SG02	Evaluates contamination at the head of the slip near the Slip 4 emergency overflow/storm drain, Slip 4 storm drain, and East Marginal Way emergency overflow. Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Co-located with a subsurface core.	1273509	199436
Intertidal Surface Grab	SG03	Evaluates contamination near the head of the slip near five outfalls. Located near historical data point with limited analyte list and non-standard PCB method.	1273490	199346
Subtidal Surface Grab	SG04	Evaluates previously unsampled area off Crowley dock. Part of cross-slip transect. Located off 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)].	1273422	199285
Subtidal Surface Grab	SG05	Part of cross-slip transect to assess distribution of contaminants. Co-located with a subsurface core. Near outfall.	1273482	199271
Intertidal Surface Grab	SG06	Part of cross-slip transect to assess distribution of contaminants. Located near historical data point of undocumented quality.	1273541	199273
Subtidal Surface Grab	SG07	Evaluates previously unsampled area off Crowley dock. Co-located with a subsurface core.	1273393	199158
Intertidal Surface Grab	SG08	Evaluates area near private storm drain. Co-located with a subsurface core.	1273490	199138



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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG09	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273332	199042
Subtidal Surface Grab	SG10	Provides information for the center of the slip. Co-located with a subsurface core.	1273406	199034
Subtidal Surface Grab	SG11	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273308	198966
Subtidal Surface Grab	SG12	Located along center line of slip to provide adequate spatial coverage.	1273380	198967
Intertidal Surface Grab	SG13	Located along eastern shoreline to fill spatial data gap.	1273460	198977
Subtidal Surface Grab	SG14	Located within area dredged by Crowley in 1996. Near 8 inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273262	198888
Subtidal Surface Grab	SG15	Near outfall. Co-located with a subsurface core.	1273373	198887
Subtidal Surface Grab	SG16	Located within area dredged by Crowley in 1996. Spatial data gap.	1273196	198833
Subtidal Surface Grab	SG17	Located across slip from SG16. Spatial data gap.	1273313	198793

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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG18	Located within area dredged by Crowley in 1996. Near historical data point with limited analyte list and non-standard PCB method, and near 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273120	198766
Subtidal Surface Grab	SG19	Fills spatial data gap. Co-located with a subsurface core. Near historical data point with limited analyte list and non-standard PCB method.	1273227	198731
Subtidal Surface Grab	SG20	Located within area dredged by Crowley in 1996. Spatial data gap.	1273054	198704
Subtidal Surface Grab	SG21	Located in area dredged by Crowley in 1996 and off an 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Prior to dredging, the area had elevated PAHs. Spatial data gap. Co-located with subsurface core.	1272980	198643
Subtidal Surface Grab	SG22	Located along outer edge of area dredged by Crowley in 1996. Spatial data gap.	1273070	198634
Intertidal Surface Grab	SG23	Located near historical data point of undocumented quality that showed elevated bis(2-ethylhexyl)phthalate. Part of transect that crosses the slip.	1273124	198583
Subtidal Surface Grab	SG24	Located within area dredged by Crowley in 1996. Prior to dredging, the area had elevated PAHs. Located near private storm drain. Part of transect that crosses the slip.	1272813	198600
Subtidal Surface Grab	SG25	Located within area dredged by Crowley in 1996. Spatial data gap. Part of transect that crosses the slip.	1272888	1272888

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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG26	Located near historical data point with limited analyte list and non-standard PCB method. Near two private outfalls. Part of transect that crosses the slip. Co-located with a subsurface core.	1272991	198507
Subtidal Surface Grab	SG27	Located near historical data points with limited analyte list and non-standard PCB method. Located near outer limit of Slip 4 Study Area.	1272753	198538
Subtidal Surface Grab	SG28	Located east of an area in the Duwamish River with elevated PCBs.	1272947	198438
Subtidal Surface Grab	SG29	Located near historical data point with limited analyte list, non-standard PCB method, and elevated PCBs. Located near outer limit of Slip 4 Study Area.	1272861	198419
Intertidal Composite	IC01	Located in the upper intertidal in area of potential beach access by boaters.	1273471 1273456 1273436 1273399 1273382	198953 198926 198898 198874 198850
Intertidal Subsurface Core	SC01	Located at head of slip to assess depth of contamination in an area with elevated PCBs and numerous point sources. Near existing subsurface data points with undocumented data quality. Near five outfalls.	1273509	199436
Subtidal Subsurface Core	SC02	Located in the upper slip to assess the depth of contamination in an area with elevated PCBs that is near an outfall. Near existing subsurface data points with undocumented data quality.	1273482	199271
Subtidal Subsurface Core	SC03	Located along the Crowley pier in an area with no previous subsurface data. Data will be used to assess the depth of contamination.	1273393	199158

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Bank Elevations and Slopes	Yes/High	Data for areas above +5 ft MLLW needed to generate engineering drawings, calculate remediation volumes, develop remediation options	EE/CA PRPs	2005
Sediment Transport Study	No/Low	A sediment transport study is being performed for the LDW. The information obtained from this study will be evaluated, as appropriate, for Slip 4. A specific study is not warranted in Slip 4 due to its depositional nature (see Section 2.6).	NA	NA
Pollutant Source Information	Yes/High	Evaluate ongoing sources in basin to assess potential for recontamination (see Section 3).	City and County Source Control Programs, Ecology	2004/2005
Water Quality Data	No/Low	General Duwamish River water quality information is sufficient (see Section 4).	NA	NA
Surface Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize surface sediment chemical distributions (see Section 5.1).	City/County	2004
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Intertidal/Bank Sediment Quality	Yes/High	Additional chemical data are needed to adequately characterize intertidal and bank sediment quality and assess potential to impact Slip 4 sediments (see Section 5.1).	City/County	2004
Sediment Toxicity	Maybe/Medium	Toxicity testing of surface sediments may occur if surface sediment concentrations (with the exception of total PCBs) exceed the CSL and if the area in question is not already a strong candidate for cleanup.	City/County	TBD
Geotechnical Data	Yes/High	Data on sediment type and strength are needed to evaluate potential remediation alternatives.	City/County	2004
Groundwater Data	No/Low <sup>2</sup>	Based on existing groundwater data, there is no evidence that groundwater may impact Slip 4 sediments (see Sections 3.2 and 3.7).	NA	NA

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<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Intertidal Surface Grab	SG01	Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Evaluates contamination at the head of the slip near the Georgetown Flume and I-5 storm drain outfalls.	1273471	199464
Intertidal Surface Grab	SG02	Evaluates contamination at the head of the slip near the Slip 4 emergency overflow/storm drain, Slip 4 storm drain, and East Marginal Way emergency overflow. Located near historical data point of undocumented quality or with limited analyte list and non-standard PCB method. Co-located with a subsurface core.	1273509	199436
Intertidal Surface Grab	SG03	Evaluates contamination near the head of the slip near five outfalls. Located near historical data point with limited analyte list and non-standard PCB method.	1273490	199346
Subtidal Surface Grab	SG04	Evaluates previously unsampled area off Crowley dock. Part of cross-slip transect. Located off 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)].	1273422	199285
Subtidal Surface Grab	SG05	Part of cross-slip transect to assess distribution of contaminants. Co-located with a subsurface core. Near outfall.	1273482	199271
Intertidal Surface Grab	SG06	Part of cross-slip transect to assess distribution of contaminants. Located near historical data point of undocumented quality.	1273541	199273
Subtidal Surface Grab	SG07	Evaluates previously unsampled area off Crowley dock. Co-located with a subsurface core.	1273393	199158
Intertidal Surface Grab	SG08	Evaluates area near private storm drain. Co-located with a subsurface core.	1273490	199138

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG09	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273332	199042
Subtidal Surface Grab	SG10	Provides information for the center of the slip. Co-located with a subsurface core.	1273406	199034
Subtidal Surface Grab	SG11	Located near historical data point with limited analyte list and non-standard PCB method. Also located near potential remediation boundary.	1273308	198966
Subtidal Surface Grab	SG12	Located along center line of slip to provide adequate spatial coverage.	1273380	198967
Intertidal Surface Grab	SG13	Located along eastern shoreline to fill spatial data gap.	1273460	198977
Subtidal Surface Grab	SG14	Located within area dredged by Crowley in 1996. Near 8 inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273262	198888
Subtidal Surface Grab	SG15	Near outfall. Co-located with a subsurface core.	1273373	198887
Subtidal Surface Grab	SG16	Located within area dredged by Crowley in 1996. Spatial data gap.	1273196	198833
Subtidal Surface Grab	SG17	Located across slip from SG16. Spatial data gap.	1273313	198793

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG18	Located within area dredged by Crowley in 1996. Near historical data point with limited analyte list and non-standard PCB method, and near 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Co-located with a subsurface core.	1273120	198766
Subtidal Surface Grab	SG19	Fills spatial data gap. Co-located with a subsurface core. Near historical data point with limited analyte list and non-standard PCB method.	1273227	198731
Subtidal Surface Grab	SG20	Located within area dredged by Crowley in 1996. Spatial data gap.	1273054	198704
Subtidal Surface Grab	SG21	Located in area dredged by Crowley in 1996 and off an 8-inch outfall of unknown origin [see Figure 3-1 in SEA (2004)]. Prior to dredging, the area had elevated PAHs. Spatial data gap. Co-located with subsurface core.	1272980	198643
Subtidal Surface Grab	SG22	Located along outer edge of area dredged by Crowley in 1996. Spatial data gap.	1273070	198634
Intertidal Surface Grab	SG23	Located near historical data point of undocumented quality that showed elevated bis(2-ethylhexyl)phthalate. Part of transect that crosses the slip.	1273124	198583
Subtidal Surface Grab	SG24	Located within area dredged by Crowley in 1996. Prior to dredging, the area had elevated PAHs. Located near private storm drain. Part of transect that crosses the slip.	1272813	198600
Subtidal Surface Grab	SG25	Located within area dredged by Crowley in 1996. Spatial data gap. Part of transect that crosses the slip.	1272888	1272888

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Surface Grab	SG26	Located near historical data point with limited analyte list and non-standard PCB method. Near two private outfalls. Part of transect that crosses the slip. Co-located with a subsurface core.	1272991	198507
Subtidal Surface Grab	SG27	Located near historical data points with limited analyte list and non-standard PCB method. Located near outer limit of Slip 4 Study Area.	1272753	198538
Subtidal Surface Grab	SG28	Located east of an area in the Duwamish River with elevated PCBs.	1272947	198438
Subtidal Surface Grab	SG29	Located near historical data point with limited analyte list, non-standard PCB method, and elevated PCBs. Located near outer limit of Slip 4 Study Area.	1272861	198419
Intertidal Composite	IC01	Located in the upper intertidal in area of potential beach access by boaters.	1273471 1273456 1273436 1273399 1273382	198953 198926 198898 198874 198850
Intertidal Subsurface Core	SC01	Located at head of slip to assess depth of contamination in an area with elevated PCBs and numerous point sources. Near existing subsurface data points with undocumented data quality. Near five outfalls.	1273509	199436
Subtidal Subsurface Core	SC02	Located in the upper slip to assess the depth of contamination in an area with elevated PCBs that is near an outfall. Near existing subsurface data points with undocumented data quality.	1273482	199271
Subtidal Subsurface Core	SC03	Located along the Crowley pier in an area with no previous subsurface data. Data will be used to assess the depth of contamination.	1273393	199158

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Intertidal Subsurface Core	SC04	Located across the slip from Station SC03 and off a private storm drain. Data will be used to assess the depth of contamination.	1273490	199138
Subtidal Subsurface Core	SC05	Located in the center of the slip near an existing subsurface data point with undocumented data quality. Data will be used to assess the depth of contamination.	1273406	199034
Subtidal Subsurface Core	SC06	Located at the midpoint of the slip near the Crowley pier and off an unknown outfall. Data will be used to assess the depth of contamination.	1273262	198888
Subtidal Subsurface Core	SC07	Located across the slip from Station SC06 and off an outfall. Data will be used to assess the depth of contamination.	1273373	198887
Subtidal Subsurface Core	SC08	Located in the outer portion of the slip in the area dredged by Crowley in 1996 and off an unknown outfall. Samples will be analyzed if the proposed boundary appears to be in the outer half of the slip. Data would be used to assess the depth of contamination.	1273120	198766
Subtidal Subsurface Core	SC09	Located across the slip from Station SC08 and near an existing subsurface data point of unknown data quality. Samples will be analyzed if the proposed boundary appears to be in the outer half of the slip. Data would be used to assess the depth of contamination.	1273227	198731
Subtidal Subsurface Core	SC10	Located in the area dredged by Crowley in 1996. Samples will be analyzed if the proposed boundary appears to be between Stations SC08 and SC10. Data would be used to assess the depth of contamination.	1272980	198643

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Subsurface Core	SC11	Located across the slip from Station SC08 and near an existing subsurface data point of unknown data quality and near two private storm drains. Samples will be analyzed if the proposed boundary appears to be located between Station SC09 and Station SC11. Data would be used to assess the depth of contamination.	1272991	198507



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Table 4. Estimated Numbers of Sediment and Field QC Samples by Sample Type.<sup>1</sup>

Sample Type	Analysis	Number of Samples	Sample Splits	Field Replicates	Equipment Rinse Blanks	Total Number of Field Samples
Surface Sediment						
	Grain-Size Analysis	30	2	2		34
	Total Organic Carbon	30	2	2		34
	Total Solids	30	2	2		34
	Metals	To be determined <sup>2</sup>				
	SVOCs	To be determined <sup>2</sup>				
	PCB Aroclors	30	2	2	2	36
Subsurface Sediment <sup>3</sup>						
	Grain-Size Analysis	21	2	2		25
	Total Organic Carbon	21	2	2		25
	Total Solids	21	2	2		25
	Geotechnical attributes <sup>4</sup>	To be determined				
	PCB Aroclors	21	2	2	2	27

<sup>1</sup> Replicates and split samples will be analyzed for conventionals and the standard chemical suite (i.e., metals, SVOCs, and PCB Aroclors as appropriate). Rinse blanks, which have a short holding time, will be analyzed for metals, SVOCs, and PCB Aroclors.

<sup>2</sup> Sample analyses will be tiered and selected samples analyzed for full-suite SMS following initial results.

<sup>3</sup> Numbers are based on analyzing the 0-2, 2-4 and 4-6 foot intervals from subsurface core samples SC1 - SC7. Additional samples will be analyzed for full-suite SMS analytes.

<sup>4</sup> Atterberg limits, specific gravity, and water content. The number of samples will be determined during core processing; a minimum of 10% of the core samples will be analyzed.

SVOC: semivolatile organic chemicals

PCBs: polychlorinated biphenyls

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
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Subtidal Subsurface Core	SC06	Located at the midpoint of the slip near the Crowley pier and off an unknown outfall. Data will be used to assess the depth of contamination.	1273262	198888
Subtidal Subsurface Core	SC07	Located across the slip from Station SC06 and off an outfall. Data will be used to assess the depth of contamination.	1273373	198887
Subtidal Subsurface Core	SC08	Located in the outer portion of the slip in the area dredged by Crowley in 1996 and off an unknown outfall. Samples will be analyzed if the proposed boundary appears to be in the outer half of the slip. Data would be used to assess the depth of contamination.	1273120	198766
Subtidal Subsurface Core	SC09	Located across the slip from Station SC08 and near an existing subsurface data point of unknown data quality. Samples will be analyzed if the proposed boundary appears to be in the outer half of the slip. Data would be used to assess the depth of contamination.	1273227	198731
Subtidal Subsurface Core	SC10	Located in the area dredged by Crowley in 1996. Samples will be analyzed if the proposed boundary appears to be between Stations SC08 and SC10. Data would be used to assess the depth of contamination.	1272980	198643

Table 2. Sampling and Analysis Rationale.

<b>Sample Type</b>	<b>Station Number</b>	<b>Station Selection Rationale</b>	<b>Easting (Feet)</b>	<b>Northing (Feet)</b>
Subtidal Subsurface Core	SC11	Located across the slip from Station SC08 and near an existing subsurface data point of unknown data quality and near two private storm drains. Samples will be analyzed if the proposed boundary appears to be located between Station SC09 and Station SC11. Data would be used to assess the depth of contamination.	1272991	198507

Table 3. Sample Containers, Preservation, Holding Times, and Sample Volume.

Analysis <sup>1</sup>	Container Type <sup>2</sup>	Container Size	Approximate Laboratory Subsample	Preservation	Holding Time	Extra Container Needed for Lab QC <sup>3</sup>
<b>Sediment samples for chemical and geotechnical testing</b>						
Grain size	HDPE	16 oz	250 g	4±2°C (do not freeze)	6 months	X
Metals, total solids (both from 1 jar)	HDPE or glass	4 oz	5 g	4±2°C	6 months	
Mercury			1 g		28 days	
PCB Aroclors	WMG	8 oz	30 g	Deep freeze	1 year	
Total organic carbon			1 g	(-20±4°C)	1 year	
Archival	WMG	16 oz	NA	Deep freeze (-20±4°C)	1 year	X
Atterberg limits, specific gravity, water content (subsurface samples only)	HDPE	16 oz	300 g	4±2°C	NA	X
<b>Equipment rinse blanks for chemical analysis</b>						
Metals	Glass	500 mL	100 mL	5 ml of 1:1 HNO <sub>3</sub> ;	6 months	
Mercury			100 mL	4±2°C	60 days	
SVOCs	Amber glass	500 mL	500 mL	4±2°C	7 days/40 days <sup>4</sup>	
PCB Aroclors	Amber glass	500 mL	500 mL	4±2°C	7 days/40 days <sup>4</sup>	

HDPE - high density polyethylene

WMG - wide mouth glass jar

<sup>1</sup> The laboratory may modify sample jar sizes or analyte groupings.

<sup>2</sup> Teflon-lined lids will be used for glass sample containers.

<sup>3</sup> An extra jar must be collected for at least every 20 samples when indicated. Collection of an extra jar for every 10 samples is preferable.

<sup>4</sup> Samples must be extracted within 7 days of collection and analyzed within 40 days of extraction.

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	PCB Aroclors	30	2	2	2	36
Subsurface Sediment <sup>3</sup>						
	Grain-Size Analysis	21	2	2		25
	Total Organic Carbon	21	2	2		25
	Total Solids	21	2	2		25
	Geotechnical attributes <sup>4</sup>	To be determined				
	PCB Aroclors	21	2	2	2	27

<sup>1</sup> Replicates and split samples will be analyzed for conventionals and the standard chemical suite (i.e., metals, SVOCs, and PCB Aroclors as appropriate). Rinse blanks, which have a short holding time, will be analyzed for metals, SVOCs, and PCB Aroclors.

<sup>2</sup> Sample analyses will be tiered and selected samples analyzed for full-suite SMS following initial results.

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