

Appendix H. LDW Outfall Locations

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Acronyms

Acronym	Definition
ABS	acrylonitrile butadiene styrene
CFS	cubic feet per second
CMP	composite construction
CSO	combined sewer overflow
DI	diameter
E	east
Ecology	Washington State Department of Ecology
EOF	emergency overflow
EPA	US Environmental Protection Agency
FS	Floyd Snider
gpm	gallons per minute
GPS	global positioning system
Herrera	Herrera Environmental
ID	identification
KC	King County
LDW	Lower Duwamish Waterway
na	not available
No.	number
NPDES	National Pollutant Discharge Elimination System
PVC	polyvinyl chloride
RCP	reinforced concrete pipe
RI	remedial investigation
RM	river mile
SCAP	source control action plan
SCL	Seattle City Light
SD	storm drain
SPU	Seattle Public Utilities
W	west
WA	Washington
WAC	Washington Administrative Code
WSDOT	Washington State Department of Transportation

Glossary of Outfall Nomenclature

Term	Definition
CSO	Overflow point on a publicly owned and maintained combined sewer system. Combined sewers convey both sanitary wastewater and stormwater runoff. Overflows generally occur only during large storm events when the capacity of the combined sewer is exceeded and not all flow can be successfully conveyed to a treatment plant. Under these conditions, excess flow is discharged to a nearby receiving water body to prevent sewage backups.
EOF ^a	Overflow point on a combined or sanitary sewer, generally located at a pump station. Discharges are not storm related. Overflows occur as a result of mechanical failure, pipe obstruction, or power failure. Pump stations in LDW are equipped with backup generators.
CSO/SD or EOF/SD	Shared outfall that serves as both a combined sewer overflow or emergency overflow and storm drain system.
Public storm drain	Storm drains that are required to have coverage under an NPDES municipal stormwater permit (i.e., City of Seattle, King County, Port of Seattle, and WSDOT).
Private storm drain	Storm drains that collect storm and surface waters from areas in addition to those mentioned above. Discharges from these facilities may be covered under the general industrial NPDES permit, individual stormwater permits, or other site-specific requirements governing discharge to surface water bodies. In some cases, they may not be permitted.
Stream, channel or swale	Includes locations of open-air, convergent discharges into the waterway.
Abandoned outfall	Outfalls that are plugged or have existing documentation to show that an upland pipe has been disconnected.
Not an outfall	Location previously identified as an outfall in the 2003 survey; subsequent in-field investigation or identification of historical information determined the location was not an outfall (e.g., non-contact cooling water intake pipes and pressure release pipes located in a bulkhead in Slip 6).
Pipe of unresolved origin and/or use	Pipe identified as an outfall by Herrera (2004) but was of undetermined origin and/or use.

^a This designation is also used to identify an overflow feature from a reservoir, as appropriate. Reservoir overflows are not associated with discharges from the combined or sanitary sewer.

Introduction

This appendix lists outfalls that have been identified in the Lower Duwamish Waterway (LDW), and their current status, use, and ownership information. The information included in this appendix was derived from several different sources. The majority of the information is from a low-tide outfall survey of the LDW study area conducted by Herrera Environmental (Herrera) on behalf of Seattle Public Utilities (SPU) in May 2003 (Herrera 2004). The survey was performed to locate, inspect, and collect data on the horizontal and approximate vertical locations of outfalls in the LDW. The survey also collected information on the size and composition of the outfalls and estimated, when feasible, the rate of flow (in gallons per minute [gpm]) exiting each outfall at the time of the survey. The survey area included the east and west shorelines of the LDW from the south end of Harbor Island to approximately river mile (RM) 5.0 (near the Norfolk combined sewer overflow/storm drain [CSO/SD]).

Outfalls visible during low tide were surveyed using Real Time Kinematic GPS to minimize the need to access private property (Herrera 2004). The survey was conducted in accordance with state standards for land boundary and geodetic control surveys under Washington Administrative Code (WAC) 3320130. Control points were established at 13 locations prior to the survey, and a theodolite was used in areas where the global positioning system (GPS) reception was poor (e.g., outfalls located beneath piers and near buildings). The relative accuracy for horizontal and vertical measurements is estimated at one foot in 10,000 ($\pm 0.01\%$).

Outfall locations were checked using information from City of Seattle inspection files and Washington State Department of Ecology (Ecology) National Pollutant Discharge Elimination System (NPDES) permit files, when available. These records were also used to establish outfall ownership and use. When no records were available to corroborate outfall location/use, outfalls were generally designated as “unknown.” However, the owner of the property on which the outfall is located was noted in the database. Outfalls located on or immediately offshore of a given property may not necessarily be the responsibility of the owner of that property, and there may have been changes in property ownership subsequent to the time of the 2003 outfall survey. LDWG has made no attempt to verify (or update) the “owner/operator” information provided by Herrera. Future site-specific investigations, including SPU’s and Ecology’s inspection programs, may provide additional outfall information.

Additional information from other sources was combined with the Herrera survey to provide the most up-to-date information. These sources included information from the Phase 1 RI (Windward 2003), and outfall information from Ecology, US Environmental Protection Agency (EPA), City of Seattle, City of Tukwila, The Boeing Company (Boeing), Port of Seattle, and King County (Riley 2008) records. Boeing conducted an internal records review to further evaluate the current status and ownership of the outfalls on their properties along the LDW, and completed an in-field inspection of the

shoreline along Boeing Plant 2 and the Boeing Developmental Center to identify and confirm outfall locations noted in the 2003 survey. In most cases (Boeing being an exception), LDWG members did not attempt to verify the outfall coordinates provided by Herrera. During this effort, Boeing identified additional outfall locations that had not been reported in the 2003 survey and noted other pipes that were either abandoned or improperly classified as outfalls by Herrera (2004).

In total, approximately 250 individual outfalls were identified within the LDW study area. These outfalls were categorized using the classification nomenclature presented in Table 9-7 in the main body of the RI. Maps 9-8a through 9-8f in the main body of the RI present the outfall locations, their classification, and ownership status.

The information presented in this appendix is meant to serve as an inventory of identified outfalls presently located within the LDW. The presence of an outfall within this appendix does not imply that it is a potential source of contamination to the LDW. The information in this appendix is only as accurate as the source information reviewed during compilation, which included the 2003 outfall survey completed by Herrera and subsequent confirmation investigations completed by LDWG members. Errors may exist for several reasons.

During the 2003 outfall survey, no attempt was made to verify whether each and every pipe observed during the survey was in fact an outfall. The outfall flow rates visually observed during the 2003 survey may have been influenced by recent rainfall events and tidal stages, among other variables, specific to the time of the survey, and may not represent “normal” or average flow rates. In addition, the outfall configuration of the LDW is continually changing, with new outfalls being installed and existing outfalls being decommissioned. The outfall list in this appendix is meant to serve as a snapshot of outfall conditions at the time of the survey. More recent information, when available, is reflected in the outfall discussions in Appendix I.

Table H-1. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2002	108E	0.6 E	SPU		30-in. steel	drip	KC or SPU CSO/SD	1	na	Seattle Public Utilities abandoned treatment facility outfall (Duwamish Diagonal SCAP documentation)	resolved	abandoned
2003	110E	0.7 E	SPU		12-in. steel	trickle	unknown SD	1	none found	Diagonal Ave S SD	resolved	public SD
2004	113E	0.9 E	General Services Administration		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
2005	112E	0.9 E	General Services Administration		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
2006	111E	0.7 E	Corps of Engineers		12-in. metal	trickle	unknown SD	1	none found	No information readily available.	resolved	public SD
2007	122E	1.2 E	King County		18-in. CMP	none	KC SD	1	na	King County storm drains	resolved	public SD
2008	123E	1.2 E	King County		8-in. steel	none	KC SD	1	na	King County storm drains	resolved	public SD
2009	124E	1.3 E	King County		6-in. ductile	none	KC SD	1	na	King County storm drains	resolved	public SD
2010	125E	1.4 E	King County		6-in. PVC	none	KC SD	1	na	King County storm drains	resolved	public SD
2011	126E	1.4 E	King County		12-in. PVC	none	KC SD	1	na	King County storm drains	resolved	public SD
2013	128E	1.4 E	Longview Fibre		12-in. concrete	trickle	unknown SD	1	SO3000206D	Direct discharge to LDW.	resolved	permitted private SD
2014	130E	1.6 E	James Hardie		24-in. concrete	3 gpm	Settling pond outlet	1	SO3000056D	May also be covered under this permit as an additional overflow outlet.	resolved	permitted private SD
2015	131E	1.6 E	James Hardie		na	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD
2016	132E	1.6 E	James Hardie		na	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2017	129E	1.5 E	James Hardie		12-in. PVC	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD
2018	135E	1.7 E	Glacier Northwest	East Shore	8-in. PVC	none	unknown SD	1	SO3002227D WAG503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD
2019	133E	1.7 E	Glacier Northwest	East Shore	24-in. concrete	2 gpm	unknown SD	1	SO3002227D WAG503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD
2021	136E	1.8 E	Gilmore James Bldg		6-in. PVC	na	unknown SD	1	none found	No information readily available.	tentatively resolved	private SD
2022	137E	1.9 E	N of Bridge		8-in. PVC	0.5 gpm	unknown SD	1	none found	No information readily available. Located near several other public SDs, so may be KC or SPU outfall.	unresolved	pipe of unresolved origin and/or use
2024	141E	2.0 E	SCS Holdings		12-in. concrete	10 gpm	unknown SD	1	SCS Refrigerated Services: SO3005565A	Permit for SCS Refrigerated Services corresponds with three outfalls in the Ecology database. All permitted outfalls may be routed to this one discharge point or may be routed to a municipal treatment facility.	resolved	permitted private SD
2026	151E	2.3 E	SPU		30-in. ductile	none	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
2027	150E	2.3 E	Hopkins, Frederick		6-in. clay	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2028	149E	2.3 E	Hopkins, Frederick	Estate Trust	18-in. concrete	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
2029	147E	2.3 E	Hopkins, Frederick	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
2030	148E	2.3 E	Hopkins, Frederick	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
2032	146E	2.3 E	Hopkins, Frederick	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2033	145E	2.3 E	Hopkins, Frederick	Estate Trust	3-in. PVC	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	resolved	private SD
2034	152E	2.5 E	Shalmar Group		6-in. steel	none	unknown SD	1	Seattle Iron & Metal Works: SO3003645	Permit for Seattle Iron & Metal Works may correspond to this outfall.	resolved	permitted private SD
2035	153E	2.5 E	SPU		30-in. DI	trickle	City SD	1	na	Seattle Public Utility storm drains	resolved	public SD
2036	154E	2.6 E	S Othello St	Puget Sound Truck Lines, Inc.	8-in. steel	none	unknown SD	1	SO3000949	Permit for Puget Sound Trucking has five outfalls in Ecology database, which may cover these outfalls. Outfall likely also drains adjacent street surface.	resolved	permitted private SD
2037	155E	2.6 E	R&A Properties		10-in. steel	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database, which may cover these outfalls.	resolved	permitted private SD
2038	162E	2.6 E	R&A Properties		6-in. concrete	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database, which may cover these outfalls.	resolved	permitted private SD
2039	161E	2.6 E	R&A Properties		6-in. concrete	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database, which may cover these outfalls.	resolved	permitted private SD
2040	164E	2.6 E	R&A Properties		12-in. concrete	trickle	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database, which may cover these outfalls.	resolved	permitted private SD
2041	171E	2.7 E	Seattle City Light		4-in. concrete	na				This outfall was originally identified as the old water intake for the Georgetown steam plant but more recent investigations have determined that it is a pipe of unknown origin.	unresolved	pipe of unresolved origin and/or use

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2042	174E	2.8 E	Crowley Marine		8-in. PVC	trickle	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
2046	157E	2.8 E	WSDOT (Slip 4)		72-in. steel	50 gpm	WSDOT SD	1	na	WSDOT storm drain. Also receives runoff from 40 ac east of I-5. May accept discharge from North Boeing Field (SO3000226) via storm drains.	resolved	public SD
2047	156E	2.8 E	Seattle City Light		72-in. CMP	na	City SD	1	na	Seattle City Light storm drain Georgetown flume.	resolved	public SD
2048	158E	2.8 E	SPU		24-in. concrete	none	City SD	1	na	North Boeing Field SD Storm drain outfall owned by SPU but only receives runoff from North Boeing Field (formerly Slip 4 CSO/SD (117).	resolved	public SD
2049	159E	2.8 E	King County		60-in. concrete	200 gpm	KC SD/SPU EOF	1	na	King County Airport SD No. 3 SPU EOF No. 117 (formerly Slip 4 SD)	resolved	EOF/SD
2050	165E	2.9 E	First South Properties	Cedar Grove/Slip 4 South	6-in. concrete	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SD
2051	169E	2.9 E	First South Properties	Cedar Grove/Slip 4 South	6-in. concrete	none	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SD
2052	176E	2.9 E	Boeing – Plant 2		30-in. concrete	na	unknown SD	1	SO3000482D, WA0002917	Boeing outfall A comprises twin 30-in. outfalls (Floyd Snider 2006).	resolved	permitted private SD
2053	177E	2.9 E	Boeing – Plant 2		30-in. concrete	na	unknown SD	1	SO3000482D, WA0002917	Boeing outfall A comprises twin 30-in. outfalls (Floyd Snider 2006).	resolved	permitted private SD
2054	211E	3.6 E	Boeing – Plant 2		4-in. iron	na	unknown SD	1		Boeing field survey indicates that pipe is abandoned. Probably an old fire water blow-off line (Floyd Snider 2006).	resolved	abandoned

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL No.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2055	212E	3.6 E	Boeing – Plant 2		18-in. steel	trickle	unknown SD	1		Outfall Y has been rerouted to outfall Z (Floyd Snider 2006).	resolved	abandoned
2056	213E	3.6 E	Boeing – Plant 2		36-in. concrete	20 gpm	unknown SD	1	SO3000482D, WA0002917	Accepts diverted flow from former outfalls X and Y ((Floyd Snider 2006).	resolved	permitted private SD
2057	214E	3.6 E	Boeing – Plant 2		8-in. steel	trickle	unknown SD	1		No evidence found to support abandoned classification. Boeing survey could not locate this feature (Floyd Snider 2006).	unresolved	pipe of unresolved origin and/or use
2058	215E	3.6 E	Boeing – Plant 2		4-in. steel	none	unknown SD	1		No evidence found to support abandoned classification. Boeing survey could not locate this feature, which was probably a fire water line or another pipe, but not an outfall (Floyd Snider 2006).	unresolved	pipe of unresolved origin and/or use
2059	216E	3.6 E	TBD		24-in. CMP	2 gpm	unknown SD	1	SO3000482D, WA0002917	The current SD system partially drains KC airport and part of E Marginal Way and runs along Jorgensen Forge. Boeing and Jorgensen Forge also had historical connections but do not currently discharge to this SD system (Floyd Snider 2006).	unresolved	public SD ^c
2061	228E	3.8 E	Boeing – Thompson		24-in. steel	3 gpm	private SD	1	SO3000148D	Permit indicates direct discharge to LDW, permitted under Boeing Development Center.	resolved	permitted private SD
2062	227E	3.8 E	SPU/King County		48-in. CMP	20 gpm	SPU/KC EOF	1	na	Seattle Public Utility EOF (No. 156) King County Airport SD No. 2	resolved	EOF/SD
2063	226E	3.7 E	Boeing – Issacson		4-in. steel	none	unknown SD	1	none found	Boeing Thompson/Boeing Scientific permitted outfall from Ecology is shown on map near RM 3.3 on the west side, but Boeing has never owned property there. These coordinates are likely incorrect since the Herrera survey did not identify an outfall at this location.	unresolved	pipe of unresolved origin and/or use
2064	224E	3.7 E	Jorgensen Forge		12-in. CMP	2 gpm	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW. Ecology database lists four outfalls.	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2065	223E	3.7 E	Jorgensen Forge		18-in. concrete	5 gpm	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
2066	222E	3.7 E	Jorgensen Forge		12-in. steel	none	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
2067	221E	3.7 E	Jorgensen Forge		12-in. concrete	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
2068	220E	3.7 E	Jorgensen Forge		4-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
2069	219E	3.7 E	Jorgensen Forge		4-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
2070	218E	3.6 E	Jorgensen Forge		12-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
2071	217E	3.6 E	Jorgensen Forge		2-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
2072	225E	3.7 E	Jorgensen Forge		18-in. steel	trickle	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
2073	233E	4.0 E	Kenworth Truck Co.		18-in. concrete	trickle	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has 3 permitted outfalls located on the Kenworth property. These may account for 3 to 4 outfalls.	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2074	232E	3.9 E	Kenworth Truck Co.		8-in. CMP	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD
2075	231E	3.9 E	Kenworth Truck Co.		CMP	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD
2076	230E	3.9 E	Kenworth Truck Co.		30-in. steel	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD
2077	229E	3.9 E	Boeing – Thompson		steel	1 gpm	private SD	1	SO3000148D	Permit indicates direct discharge to LDW, permitted under Boeing Development Center	resolved	permitted private SD
2078	236E	4.2 E	Container Properties LLC	Formerly Rhône-Poulenc/ Slip 6	8-in. plug iron	dripping	unknown SD	1	none found	Location identified as stormwater outfall utilized by Rhône-Poulenc. Outfall location may have been abandoned during demolition of onsite buildings. New sub-grade stormwater piping plumbed to City of Seattle storm drains.	resolved	private SD
2079	235E	4.2 E	Container Properties LLC	Formerly Rhône-Poulenc/ Slip 6	6-in. plug iron	none	unknown SD	1	none found	Location identified as stormwater outfall utilized by former Rhône-Poulenc. Pipe securely plugged according to City of Seattle survey.	resolved	abandoned

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2080	234E	4.2 E	King County		24-in. riveted steel	20 gpm	KC SD	1	na	King County Airport storm drain No. 1	resolved	public SD
2081	237E	4.2 E	Boeing Developmental Center		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2082	238E	4.2 E	Boeing Developmental Center		24-in. steel	dripping	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2083	239E	4.2 E	Slip 6 – Non-Boeing		6-in. steel	discharge	unknown SD	1	none found	Not a Boeing permitted outfall. Boeing has investigated this pipe and believes that it is a drain from an underground utility vault that predates Boeing's use of this property. Boeing is in the process of having this pipe plugged.	resolved	abandoned
2084	240E	4.2 E	Slip 6 – Non-Boeing		6-in.	dripping	unknown SD	1	none found	Not a Boeing permitted outfall. Boeing has investigated this pipe and believes that it is a drain from an underground utility vault that predates Boeing's use of this property. Boeing is in the process of having this pipe plugged.	resolved	abandoned
2085	245E	4.5 E	Boeing Developmental Center		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2086	244E	4.4 E	Boeing Developmental Center		48-in. riveted CMP	low flow	unknown SD	1		Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). Note: this outfall is bricked shut, but discharge observed during survey.	tentatively resolved	abandoned

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2087	243E	4.4 E	Boeing Developmental Center		36-in. concrete	na	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2088	242E	4.4 E	Boeing Developmental Center		36-in. concrete	trickle	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2089	241E	4.4 E	Boeing Developmental Center		24-in. concrete	na	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2090	246E	4.6 E	Boeing Developmental Center		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
2091	247E	4.8 E	Boeing Developmental Center		36-in. CMP	0.5 gpm	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 – DC17, discontinuous. Boeing files show 18 outfalls (DC1–DC18). This outfall is likely DC5.	resolved	permitted private SD
2092	248E	4.9 E	Boeing Developmental Center		18-in. iron	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC17.	resolved	permitted private SD
2093	251E	4.9 E	Boeing Developmental Center		24-in. concrete	5 gpm	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 2.	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2094	252E	4.9 E	Boeing Developmental Center		12-in. concrete	none	unknown	1		Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	unresolved	pipe of unresolved origin and/or use
2095	253E	4.9 E	KC/SPU/ Boeing	KC Norfolk CSO (044)	84 in. 6 ft x 6 ft	10 gpm	KC/SPU CSO/SD	1	see notes	Public storm drain that also receives stormwater discharges from Boeing properties upstream. This discharge is permitted through Boeing Developmental Center (WA031488B or SO3000146C) as DC1. King County's Norfolk CSO (044). Seattle Public Utilities also operates an EOF that discharges through this outfall.	resolved	CSO/SD
2096	250E	4.9 E	Boeing Developmental Center		6-in. iron	dripping	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 3.	resolved	permitted private SD
2097	249E	4.9 E	Boeing Developmental Center		8-in. steel	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 4.	resolved	permitted private SD
2098	379W	4.5 W	Seattle City Light		6-in. CMP	none	City SD	1	na	Seattle City Light storm drain	resolved	public SD
2099	378W	4.4 W	Seattle City Light		6-in. CMP	dripping	City SD	1	na	Seattle City Light storm drain	resolved	public SD
2100 (A)	375W	4.2 W	King County	S 96th SD	72-in. CMP	flowing	unknown SD	1	none found	S 96th St SD	resolved	public SD
2100 (B)	376W	4.2 W	Duwamish Yacht Club		6-in. PVC	na	unknown SD	1	none found	Potentially a private SD serving adjacent waterfront property.	unresolved	pipe of unresolved origin and/or use
2101	374W	4.0 W	S 92nd PI		18-in. concrete	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2103	372W	3.8 W	Boeing – South Park		12-in. concrete	0.5 gpm	storm drain	1	none found	No odor, no color. End of pipe chipped off.	unresolved	pipe of unresolved origin and/or use
2106	358W	2.8 W	S Portland St		24-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
2107	357W	2.8 W	King County		36-in. RCP	2 gpm	KC CSO	1	na	King County Combined Sewer Overflow 8 th Ave S CSO (040)	resolved	CSO
2108	359W	2.8 W	S Portland St		8-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
2109	362W	2.9 W	S Chicago St		11-in. wood	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
2110	361W	2.9 W	S Chicago St		15-in. concrete	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
2111	360W	2.9 W	S Chicago St		12-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
2112	356W	2.7 W	SPU		na	na	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
2113	355W	2.6 W	S Webster St		6-in. concrete	moist	unknown SD	1	none found	No information readily available – likely drains adjacent street surface and may drain upland permitted locations.	tentatively resolved	public SD
2114	354W	2.5 W	Boyer Logistics, Inc		6-in. concrete	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
2115	353W	2.4 W	Boyer Logistics, Inc		8-in. PVC	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
2116	352W	2.3 W	Boyer Logistics, Inc		6-in. plastic	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2117	351W	2.3 W	Boyer Logistics, Inc		4-in. PVC	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
2118	350W	2.2 W	SPU		24-in. concrete	none	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
2120	348W	2.2 W	1st Ave S Bridge (west side)		36-in. concrete	10 cfs	unknown SD	1	none found	Overflow from West Seattle reservoir; not associated with discharges from combined or sanitary sewer.	resolved	EOF
2121	346W	2.1 W	1st Ave S Bridge (west side)		12-in. concrete	na	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit. Permit for Swan Bay Holding Dock (SO3002471) has one permitted outfall that may account for this pipe.	unresolved	pipe of unresolved origin and/or use
2122	338W	1.9 W	Port – Terminal 115		24-in. concrete	1 gpm	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2123	334W	1.9 W	Port – Terminal 115		12-in. CMP	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2124	336W	1.9 W	Port – Terminal 115		18-in. concrete lined DI	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2125	335W	1.9 W	SPU		72-in. concrete	100 gpm	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
2127	332W	1.5 W	SPU/King County		48-in. concrete	50 gpm	KC CSO/ City SD	1	na	Terminal 115 CSO (038)/SW Kenny SD.	resolved	CSO/SD
2128	331W	1.5 W	Port – Terminal 115	West Shore	15-in. CMP	under-water	unknown SD	1	SO3002227D WAG503191D WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	resolved	public SD
2129	329W	1.4 W	Duwamish Shipyard, LLC		6-in. DI	none	unknown SD	1	WA0030937C	Five outfalls listed on permit, but only 1 outfall located in City of Seattle survey. All outfalls may all be routed to single discharge point or routed to a municipal treatment facility.	tentatively resolved	permitted private SD
2130	330W	1.4 W	Glacier Northwest	West Shore	15-in. DI	none	unknown SD	1	SO3002227DWAG 503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2131	328W	1.3 W	Alaska Marine Lines		12-in. steel	1/8 full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2132	327W	1.3 W	Alaska Marine Lines		12-in. steel	none	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2133	324W	1.3 W	Alaska Marine Lines		12-in. steel	¾ full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2134	326W	1.3 W	Alaska Marine Lines		4-in. PVC	¾ full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2135	325W	1.3 W	Alaska Marine Lines		4-in. PVC	none	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2136	323W	1.3 W	Alaska Marine Lines		6-in. steel	full flow	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
2137	322W	1.2 W	Lafarge Corporation		24-in. concrete	5/8 flow	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
2138	317W	1.0 W	Lafarge Corporation		6-in. steel	none	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
2139	316W	1.0 W	Lafarge Corporation		6-in. DI	none	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
2140	312W	0.5 W	Drummond	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc., mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2141	313W	0.5 W	Drummond	State Parks	8-in. steel	none	unknown SD	1	Evergreen Trails: SO3002966C	Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. This location most closely matches latitude and longitude information provided in the permit.	tentatively resolved	permitted private SD
2142	314W	0.5 W	Drummond	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use
2143	315W	0.5 W	Drummond	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use
2144	307W	0.3 W	SW Idaho St		10-in. DI	under-water	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
2145	308W	0.3 W	SW Idaho St		4-in. DI	none	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
2146	306W	0.3 W	SW Idaho St		6-in. DI	none	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
2147	305W	0.3 W	SW Idaho St		72-in. concrete	under-water	unknown SD	1	none found	SPU storm drain	resolved	public SD
2148	301W	0.0 W	Port		12-in. CPE	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2149	300W	0.0 W	Port		24-in. CPE	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2150	302W	0.1 W	Port		18-in. CPE	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2151	104E	0.1	Port		15-in. CMP, behind headwall	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2153	107E	0.5 E	King County		36-in.	na	KC CSO	1	na	Concrete stormwater system structure, not point of outfall	resolved	not an outfall
2154	103E	0.1 E	Port		6-in. concrete	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2155	106E	0.5 E	SPU, King County		144-in. concrete	2 ft/sec	SPU and KC CSO/SD	1	na	Seattle Public Utility Diagonal CSO (No. 111) and King County Hanford No. 1 (031)/Bayview CSO; Seattle Public Utility SD	resolved	CSO/SD
2156	102E	0.0	Port		18-in. CMP at headwall DI	20 gpm	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2157	309W	0.4 W	Birmingham		24-in. concrete	na	unknown SD	1	SO3002341D	Permit for General Recycling of WA discharges directly to LDW in this general location.	tentatively resolved	permitted private SD
2200	380W	4.6 W	WSDOT, Turning basin – SW shoreline		30-in. CMP	na	unknown SD	1	none found	Outfall location corresponds with WSDOT discharge point for SR 99.	resolved	public SD
2201	381W	4.6 W	WSDOT, Turning basin – NW shoreline		36-in. CMP	3 gpm	unknown SD	1	none found	Outfall location corresponds with WSDOT discharge point for SR 99.	resolved	public SD
2205	377W	4.3 W	Port of Seattle/Delta Marine		na	na	creek	1	none found	Creek outlet on Port property south of S 96 th , just south of Delta crane.	resolved	stream, channel, or swale
2209	370W	3.6 W	Port		8-in. PVC	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2210	369W	3.6 W	Port		4-in. and 3-in. iron	na	not an outfall	1	na	Pipe location identified as suspected abandoned in Herrera survey. Pipe noted during site activities but identified as miscellaneous shoreline debris and not an outfall.	resolved	not an outfall
2211	368W	3.6 W	Port		4-in. CPE	none	not an outfall	1	na	Pipe location identified as suspected abandoned in Herrera survey. Pipe noted during site activities but identified as miscellaneous shoreline debris and not an outfall.	resolved	not an outfall

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2212	366W	3.6 W	Port		6-in. PVC	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2213	371W	3.7 W	Drainage swale		na	na	swale	1	na	Drainage/creek swale	resolved	stream, channel, or swale
2214	365W	3.5 W	South Park Marina		12-in. CMP	na	unknown SD	1	WAG030045C	Direct discharge to LDW.	resolved	permitted private SD
2215	364W	3.4 W	16th Ave Bridge (south side)		12-in. CMP	na	unknown SD	1	none found	Pipe is relatively new, and likely related to drainage from bridge. No permit is likely to be located.	resolved	public SD
2216	170E	2.9 E	First South Properties	Cedar Grove/Slip 4 South	6-in. concrete	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs
2217	167E	2.9 E	First South Properties	Cedar Grove/Slip 4 South	4-in. steel	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs
2219	166E	2.9 E	First South Properties	Cedar Grove/Slip 4 South	6-in. steel	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs
2220	333W	1.8 W	Port		24-in. concrete	na	Port SD	1	na	Port of Seattle storm drains	resolved	public SD
2223	121E	1.1 E	King County		18-in. ductile iron	na	KC CSO	1	na	King County Combined Sewer Overflow Brandon St. (041)	resolved	CSO
2225	109E	0.6 E	Port		18-in. concrete	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
2226	311W	0.5 W	Drummond		na	15 gpm	Ditch	1	na	Ditch at Drummond property	resolved	stream, channel, or swale
2232	304W	0.2 W	Port		18-in. CPE	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2233	303W	0.1 W	Port		na	na	channel	1	na	Drainage channel constructed by Port at T-105	resolved	stream, channel, or swale
2244	119E	1.1 E	King County		na	na	KC SD	1	na	King County storm drain	resolved	public SD
2245	118E	0.9 E	General Services Administration		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
2246	114E	0.9 E	General Services Administration		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
2247	116E	0.9 E	General Services Administration		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
2501	140E	1.9 E	unknown		48-in. concrete	none				Flapper valve in good condition.	unresolved	pipe of unresolved origin and/or use
2502	139E	1.9 E	King County		8-ft steel gate	none	KC CSO	1	na	King County Combined Sewer Overflow, E Michigan (039)	resolved	CSO
2503	138E	1.9 E	WSDOT		36-in. concrete	none	WSDOT SD	1	na	1 st Ave S bridge SD	resolved	public SD
2505	340W	2.0 W	1st Ave S Bridge (west side)		12–18-in. CMP	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
2506	341W	2.0 W	King County		36-in. concrete	none	KC CSO	1	na	King County Combined Sewer Overflow, W Michigan CSO (042)	resolved	CSO
2507	344W	2.1 W	1st Ave S Bridge (west side)		8-in. steel	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
2508	343W	2.1 W	1st Ave S Bridge (west side)		18-in. concrete	none	unknown SD	1	SO3002471	Permit for Swan Bay Holding Dock (SO3002471) has one permitted outfall that most closely correlates with the pipe size and location of this discharge point.	resolved	permitted private SD
2509	345W	2.1 W	1st Ave S Bridge (west side)		12-in. concrete	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
2510	347W	2.1 W	1st Ave S Bridge (west side)		8-in. PVC	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
2512	342W	2.1 W	1st Ave S Bridge (west side)		4-in. ABS	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
3000	206E	3.5 E	Boeing – Plant 2		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3001	205E	3.5 E	Boeing – Plant 2		6-in. IP	none	unknown SD	1		No color or odor reported in City survey. Likely disconnected structure piping, rather than an outfall (FS 2006).	resolved	not an outfall
3002	204E	3.5 E	Boeing – Plant 2		12-in. steel	none	unknown SD	1		Visual evidence of plug according to City survey. Boeing could not locate this outfall.	resolved	abandoned
3003	203E	3.5 E	Boeing – Plant 2		6-in. IP	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3004	202E	3.5 E	Boeing – Plant 2		6-in. steel	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3005	201E	3.5 E	Boeing – Plant 2		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3006	200E	3.4 E	Boeing – Plant 2		4-in. DI	none	unknown SD	1		Location once an NPDES permitted outfall; sign posted at the outfall that says "DOE 017A monitor point." Boeing survey indicated that pipe has since been abandoned (Floyd Snider 2006).	resolved	abandoned
3007	199E	3.4 E	Boeing – Plant 2		6-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3008	198E	3.4 E	Boeing – Plant 2		4-in. DI	none	unknown SD	1		Boeing survey noted that pipe was broken and disconnected (Floyd Snider 2006).	resolved	abandoned
3009	197E	3.4 E	Boeing – Plant 2		6-in. DI	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned
3010	196E	3.4 E	Boeing – Plant 2		4-in. steel	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned
3011	195E	3.4 E	Boeing – Plant 2		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917	Boeing field survey indicated 10-in. diameter of this pipe (Floyd Snider 2006).	resolved	permitted private SD
3012	194E	3.4 E	Boeing – Plant 2		6-in. DI	none	unknown SD	1		Boeing field survey confirmed that pipe is abandoned, but origin is unknown (Floyd Snider 2006).	resolved	abandoned

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
3013	193E	3.4 E	Boeing – Plant 2		6-in. PVC	none	unknown SD	1		Boeing field survey confirmed that this pipe is abandoned (Floyd Snider 2006).	resolved	abandoned
3014	192E	3.4 E	Boeing – Plant 2		4-in. DI	na	unknown SD	1		Boeing field survey confirmed that pipe is disconnected and abandoned (Floyd Snider 2006).	resolved	abandoned
3015	191E	3.4 E	Boeing – Plant 2		6-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3016	190E	3.3 E	Boeing – Plant 2		24-in. CMP	none	unknown SD	1		Confirmed abandoned in Ecology files.	resolved	abandoned
3017	207E	3.5 E	Boeing – Plant 2		10-in. DI	flushing	unknown SD	1		Outfall location noted to be flushing during 2003 survey; Boeing completed subsequent field survey confirming this location no longer an outfall, but rather a disconnected weir/pipe that was originally connected to outfall V (Floyd Snider 2006). Pipe now abandoned.	resolved	abandoned
3018	208E	3.5 E	Boeing – Plant 2		2-in. PVC	none	unknown SD	1		2003 survey observed this outfall to be associated with DOE 013 monitor point outfall 013. Feature was not located during subsequent Boeing in-field survey (Floyd Snider 2006); Boeing identifies as not an outfall.	resolved	not an outfall
3019	209E	3.5 E	Boeing – Plant 2		na	na	unknown SD	1		2003 survey observed this outfall to be associated with DOE 012 monitor point outfall 012. No outfall specifics were identified during survey. Feature was not located during subsequent Boeing in-field survey (Floyd Snider 2006). Boeing identified as not an outfall.	resolved	not an outfall
3022	178E	3.1 E	Boeing – Plant 2		8-in. PVC	dripping	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3023	179E	3.1 E	Boeing – Plant 2		6-in. PVC	none	unknown SD	1		Pipe not visibly plugged, but Boeing field survey indicates that this pipe is abandoned (Floyd Snider 2006).	resolved	abandoned
3024	180E	3.1 E	Boeing – Plant 2		10-in. steel	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3025	181E	3.1 E	Boeing – Plant 2		3-in. PVC	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL No.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
3026	182E	3.2 E	Boeing – Plant 2		8-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3027	183E	3.2 E	Boeing – Plant 2		10-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3028	184E	3.2 E	Boeing – Plant 2		6-in. DI	na	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3030	185E	3.3 E	Boeing – Plant 2		24-in. CMP	dripping	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3031	187E	3.3 E	SPU/Boeing		8-in. concrete	na	City SD	1	na	According to City records, this outfall serves the southern portion of 16 th Ave S and the Boeing facility at 7755 E Marginal Way, with cross connection and discharge through outfall No. 3032. This particular location is not an outfall	resolved	not an outfall
3032	186E	3.3 E	SPU/Boeing		12-in. DI	dripping	public SD	1		Outfall drains both public roadways and Boeing Plant 2 (Outfall J). Shared-use identified (Floyd Snider 2006). Side sewer card confirms that this pipe drains both Boeing facilities and roadway.	resolved	public SD
3034	189E	3.3 E	Boeing – Plant 2		12-in. PVC	none	unknown SD	1		3034 is a flow weir that was once connected to pipe L (3035). Pipe and weir are no longer connected (Floyd Snider 2006).	resolved	abandoned
3035	188E	3.3 E	Boeing – Plant 2		12-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
3037	363W	3.2 W	S Southern St		18-in. CMP	none	unknown SD	1	none found	No information readily available – likely drains adjacent street surface and may drain upland permitted locations. The City does not have any storm drains in this area .	tentatively resolved	pipe of unresolved origin and/or use
5000	115E	0.9 E	General Services Administration		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
5001	117E	0.9 E	General Services Administration		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
5002	318W	1.2 W	Lafarge Corporation		36-in. CMP	none	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
5003	319W	1.2 W	Lafarge Corporation		32-in. CMP	4 gpm	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
5004	320W	1.2 W	Lafarge Corporation		28-in. CMP	trickle	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
5005	321W	1.2 W	Lafarge Corporation		48-in. concrete	trickle	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
5006	175E	2.8 E	Crowley Marine		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
5007	173E	2.8 E	Crowley Marine		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
5008	172E	2.8 E	Crowley Marine		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
5009	168E	2.8 E	Crowley Marine		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
5010	163E	2.8 E	Crowley Marine		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
BDC-1	(formerly Boeing 6)	4.4 E	Boeing Developmental Center		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
BDC-2	(formerly Boeing 7)	4.7 E	Boeing Developmental Center		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
BDC-3	(formerly Boeing 8)	4.7 E	Boeing Developmental Center		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
BDC-4	(formerly Boeing 9)	4.7 E	Boeing Developmental Center		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
BDC-5	(formerly Boeing 10)	4.9 E	Boeing Developmental Center		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This is likely DC 16.	resolved	permitted private SD
Boeing 1		3.0 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall added during Boeing update.	resolved	permitted private SD
Boeing 2		3.1 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall added during Boeing update.	resolved	permitted private SD
Boeing 3		3.4 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall was not identified by Herrera but is an active outfall (Floyd Snider 2006).	resolved	permitted private SD
Boeing 4		3.5 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall added by Boeing since it was not located by Herrera/City.	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing 5		3.5 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall is active, but buried in embankment (Floyd Snider 2006).	resolved	permitted private SD
Boeing 6	(formerly Boeing 11)	3.3 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	This 4-in. pipe was not located by Herrera or Boeing but is presumed to be located near outfall J (Floyd Snider 2006).	resolved	permitted private SD
Boeing 7	(formerly Boeing 12)	3.5 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall added by Boeing since it was not located by Herrera/City.	resolved	permitted private SD
Boeing 8	(formerly Boeing 13)	3.7 E	Boeing – Plant 2		na	na	na	1	SO3000482D, WA0002917	Outfall X was missed during Herrera survey. This outfall is now abandoned, and flow is routed through outfall Z (Floyd Snider 2006).	resolved	abandoned
Boeing 9	(formerly Boeing 14)	3.6 E	Boeing – Plant 2		na	na	na	1	SO300048D, WA0002917	This outfall (located just north of 2059) was not located by Herrera. Outfall formerly drained a portion of the South Yard but is not abandoned (Floyd Snider 2006).	resolved	permitted private SD
HRE 1		0.1	Port/Harbor Real Estate				unknown SD	1	none found	Outfall located on Port property adjacent to Harbor Real Estate. Discharge of stormwater from both properties likely.	tentatively resolved	public SD
Port - SF		1.9 W	Port – Sea Freeze				Port SD	1	na	Port of Seattle storm drain	resolved	public SD
S Brighton St		2.1 E	SPU				SPU CSO/SD	1	na	Seattle Public Utility CSO/SD – old outfall layer. Outfall not found during field survey. Location plotted from SPU GIS.	resolved	CSO/SD
SP 1		3.9 W	Boeing – South Park		12-in. concrete	0.5 gpm	unknown SD	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
SP 2		3.9 W	Boeing – South Park		na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
SP 3		3.8 W	Boeing – South Park		na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
SP 4		3.8 W	Boeing – South Park		na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD

Table H-1, cont. Outfalls ordered by ID number

OUTFALL IDENTIFICATION		RIVER MILE	LAND OWNER/OPERATOR ID		PIPE DESCRIPTION		OUTFALL TYPE	NO. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
OUTFALL NO.	SECONDARY ID ^a		LAND OWNER/ OUTFALL OPERATOR	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
SP 5		3.7 W	Boeing – South Park		na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Duwamish Pump Station East (035)		0.5 E	King County		36-in.	na	KC CSO	1	na	King County EOF Duwamish Pump Station East (035)	resolved	EOF
East Marginal Way S Pump Station (043)		2.8 E	King County					1	na	East Marginal Way South Pump Station King County EOF	resolved	EOF

^a Numbers assigned by SPU that run sequentially from north to south along waterway for easier identification of outfall locations. E-W indicates east and west side of waterway.

^b Visual observations from field survey completed May 16 to 20, 2003, and June 2 to 11, 2003.

^c [Because the ownership of this outfall is to be determined, the proposed designation reflects current use of the outfall only.](#)

ABS – acrylonitrile butadiene styrene

CFS – cubic feet per second

CMP – composite construction

CSO – combined sewer overflow

DI – diameter

E – east

EOF – emergency overflow

FS – Floyd Snider

gpm – gallon per minute

ID – identification

KC – King County

LDW – Lower Duwamish Waterway

na – not available

NPDES – National Pollutant Discharge Elimination System

PVC – polyvinyl chloride

RCP – reinforced concrete pipe

RI – remedial investigation

SCAP – source control action plan

SCL – Seattle City Light

SD – storm drain

SPU – Seattle Public Utilities

TBD – to be determined

W – west

WA – Washington

WSDOT – Washington State Department of Transportation

Table H-2. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	NO. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
1st Ave S Bridge (west side)	2120	2.2 W	348W		36-in. concrete	10 cfs	unknown SD	1	none found	Overflow from West Seattle reservoir; not associated with discharges from combined or sanitary sewer.	resolved	EOF
1st Ave S Bridge (west side)	2121	2.1 W	346W		12-in. concrete	na	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit. Permit for Swan Bay Holding Dock (SO3002471) has one permitted outfall that may account for this pipe.	unresolved	pipe of unresolved origin and/or use
1st Ave S Bridge (west side)	2505	2.0 W	340W		12–18-in. CMP	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
1st Ave S Bridge (west side)	2507	2.1 W	344W		8-in. steel	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
1st Ave S Bridge (west side)	2508	2.1 W	343W		18-in. concrete	none	unknown SD	1	SO3002471	Permit for Swan Bay Holding Dock (SO3002471) has one permitted outfall that most closely correlates with the pipe size and location of this discharge point.	resolved	permitted private SD
1st Ave S Bridge (west side)	2509	2.1 W	345W		12-in. concrete	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
1st Ave S Bridge (west side)	2510	2.1 W	347W		8-in. PVC	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
1st Ave S Bridge (west side)	2512	2.1 W	342W		4-in. ABS	none	unknown SD	1	none found	WSDOT bridge drains – no permit is likely to be located because covered under general permit.	resolved	public SD
16th Ave Bridge (south side)	2215	3.4 W	364W		12-in. CMP	na	unknown SD	1	none found	Pipe is relatively new, and likely related to drainage from bridge. No permit is likely to be located.	resolved	public SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Alaska Marine Lines	2131	1.3 W	328W		12-in. steel	1/8 full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Alaska Marine Lines	2132	1.3 W	327W		12-in. steel	none	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Alaska Marine Lines	2133	1.3 W	324W		12-in. steel	¾ full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Alaska Marine Lines	2134	1.3 W	326W		4-in. PVC	¾ full	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Alaska Marine Lines	2135	1.3 W	325W		4-in. PVC	none	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Alaska Marine Lines	2136	1.3 W	323W		6-in. steel	full flow	unknown SD	1	SO3001365D	Pipe is probably covered by Alaska Marine permit which notes that pipes discharge directly to LDW.	resolved	permitted private SD
Birmingham	2157	0.4 W	309W		24-in. concrete	na	unknown SD	1	SO3002341D	Permit for General Recycling of WA discharges directly to LDW in this general location.	tentatively resolved	permitted private SD
Boeing Developmental Center	2081	4.2 E	237E		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2082	4.2 E	238E		24-in. steel	dripping	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing Developmental Center	2085	4.5 E	245E		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2086	4.4 E	244E		48-in. riveted CMP	low flow	unknown SD	1		Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). Note: this outfall is bricked shut, but discharge observed during survey.	tentatively resolved	abandoned
Boeing Developmental Center	2087	4.4 E	243E		36-in. concrete	na	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2088	4.4 E	242E		36-in. concrete	trickle	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2089	4.4 E	241E		24-in. concrete	na	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2090	4.6 E	246E		36-in. concrete	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	2091	4.8 E	247E		36-in. CMP	0.5 gpm	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 – DC17, discontinuous. Boeing files show 18 outfalls (DC1–DC18). This outfall is likely DC5.	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing Developmental Center	2092	4.9 E	248E		18-in. iron	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC17.	resolved	permitted private SD
Boeing Developmental Center	2093	4.9 E	251E		24-in. concrete	5 gpm	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 2.	resolved	permitted private SD
Boeing Developmental Center	2094	4.9 E	252E		12-in. concrete	none	unknown	1		Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	unresolved	pipe of unresolved origin and/or use
Boeing Developmental Center	2096	4.9 E	250E		6-in. iron	dripping	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 3.	resolved	permitted private SD
Boeing Developmental Center	2097	4.9 E	249E		8-in. steel	none	private SD	1	SO3000146D, SO3000148D	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This outfall is likely DC 4.	resolved	permitted private SD
Boeing Developmental Center	BDC-1	4.4 E	(formerly Boeing 6)		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing Developmental Center	BDC-2	4.7 E	(formerly Boeing 7)		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	BDC-3	4.7 E	(formerly Boeing 8)		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	BDC-4	4.7 E	(formerly Boeing 9)		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18).	resolved	permitted private SD
Boeing Developmental Center	BDC-5	4.9 E	(formerly Boeing 10)		na	na	na	1	SO3000146C, SO3000148	Ecology database shows 14 permitted outfalls for BDC, but numbers are DC1 to DC17, discontinuous. Boeing files show 18 outfalls (DC1 to DC18). This is likely DC 16.	resolved	permitted private SD
Boeing – Issacson	2063	3.7 E	226E		4-in. steel	none	unknown SD	1	none found	Boeing Thompson/Boeing Scientific permitted outfall from Ecology is shown on map near RM 3.3 on the west side, but Boeing has never owned property there. These coordinates are likely incorrect since the Herrera survey did not identify an outfall at this location.	unresolved	pipe of unresolved origin and/or use
Boeing – Plant 2	2052	2.9 E	176E		30-in. concrete	na	unknown SD	1	SO3000482D, WA0002917	Boeing outfall A comprises twin 30-in. outfalls (Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	2053	2.9 E	177E		30-in. concrete	na	unknown SD	1	SO3000482D, WA0002917	Boeing outfall A comprises twin 30-in. outfalls (Floyd Snider 2006).	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing – Plant 2	2054	3.6 E	211E		4-in. iron	na	unknown SD	1		Boeing field survey indicates that pipe is abandoned. Probably an old fire water blow-off line (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	2055	3.6 E	212E		18-in. steel	trickle	unknown SD	1		Outfall Y has been rerouted to outfall Z (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	2056	3.6 E	213E		36-in. concrete	20 gpm	unknown SD	1	SO3000482D, WA0002917	Accepts diverted flow from former outfalls X and Y ((Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	2057	3.6 E	214E		8-in. steel	trickle	unknown SD	1		No evidence found to support abandoned classification. Boeing survey could not locate this feature (Floyd Snider 2006).	unresolved	pipe of unresolved origin and/or use
Boeing – Plant 2	2058	3.6 E	215E		4-in. steel	none	unknown SD	1		No evidence found to support abandoned classification. Boeing survey could not locate this feature, which was probably a fire water line or another pipe, but not an outfall (Floyd Snider 2006).	unresolved	pipe of unresolved origin and/or use
Boeing – Plant 2	3000	3.5 E	206E		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3001	3.5 E	205E		6-in. IP	none	unknown SD	1		No color or odor reported in City survey. Likely disconnected structure piping, rather than an outfall (FS 2006).	resolved	not an outfall
Boeing – Plant 2	3002	3.5 E	204E		12-in. steel	none	unknown SD	1		Visual evidence of plug according to City survey. Boeing could not locate this outfall.	resolved	abandoned
Boeing – Plant 2	3003	3.5 E	203E		6-in. IP	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3004	3.5 E	202E		6-in. steel	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3005	3.5 E	201E		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing – Plant 2	3006	3.4 E	200E		4-in. DI	none	unknown SD	1		Location once an NPDES permitted outfall; sign posted at the outfall that says "DOE 017A monitor point." Boeing survey indicated that pipe has since been abandoned (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3007	3.4 E	199E		6-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3008	3.4 E	198E		4-in. DI	none	unknown SD	1		Boeing survey noted that pipe was broken and disconnected (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3009	3.4 E	197E		6-in. DI	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned
Boeing – Plant 2	3010	3.4 E	196E		4-in. steel	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned
Boeing – Plant 2	3011	3.4 E	195E		10-in. PVC	none	unknown SD	1	SO3000482D, WA0002917	Boeing field survey indicated 10-in. diameter of this pipe (Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	3012	3.4 E	194E		6-in. DI	none	unknown SD	1		Boeing field survey confirmed that pipe is abandoned, but origin is unknown (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3013	3.4 E	193E		6-in. PVC	none	unknown SD	1		Boeing field survey confirmed that this pipe is abandoned (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3014	3.4 E	192E		4-in. DI	na	unknown SD	1		Boeing field survey confirmed that pipe is disconnected and abandoned (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3015	3.4 E	191E		6-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3016	3.3 E	190E		24-in. CMP	none	unknown SD	1		Confirmed abandoned in Ecology files.	resolved	abandoned

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing – Plant 2	3017	3.5 E	207E		10-in. DI	flushing	unknown SD	1		Outfall location noted to be flushing during 2003 survey; Boeing completed subsequent field survey confirming this location no longer an outfall, but rather a disconnected weir/pipe that was originally connected to outfall V (Floyd Snider 2006). Pipe now abandoned.	resolved	abandoned
Boeing – Plant 2	3018	3.5 E	208E		2-in. PVC	none	unknown SD	1		2003 survey observed this outfall to be associated with DOE 013 monitor point outfall 013. Feature was not located during subsequent Boeing in-field survey (Floyd Snider 2006); Boeing identifies as not an outfall.	resolved	not an outfall
Boeing – Plant 2	3019	3.5 E	209E		na	na	unknown SD	1		2003 survey observed this outfall to be associated with DOE 012 monitor point outfall 012.No outfall specifics were identified during survey. Feature was not located during subsequent Boeing in-field survey (Floyd Snider 2006). Boeing identified as not an outfall.	resolved	not an outfall
Boeing – Plant 2	3022	3.1 E	178E		8-in. PVC	dripping	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3023	3.1 E	179E		6-in. PVC	none	unknown SD	1		Pipe not visibly plugged, but Boeing field survey indicates that this pipe is abandoned (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3024	3.1 E	180E		10-in. steel	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3025	3.1 E	181E		3-in. PVC	none	unknown SD	1		Visual evidence of plug according to City survey.	resolved	abandoned
Boeing – Plant 2	3026	3.2 E	182E		8-in. PVC	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3027	3.2 E	183E		10-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing – Plant 2	3028	3.2 E	184E		6-in. DI	na	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3030	3.3 E	185E		24-in. CMP	dripping	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	3034	3.3 E	189E		12-in. PVC	none	unknown SD	1		3034 is a flow weir that was once connected to pipe L (3035). Pipe and weir are no longer connected (Floyd Snider 2006).	resolved	abandoned
Boeing – Plant 2	3035	3.3 E	188E		12-in. DI	none	unknown SD	1	SO3000482D, WA0002917		resolved	permitted private SD
Boeing – Plant 2	Boeing 1	3.0 E			na	na	na	1	SO3000482D, WA0002917	Outfall added during Boeing update.	resolved	permitted private SD
Boeing – Plant 2	Boeing 2	3.1 E			na	na	na	1	SO3000482D, WA0002917	Outfall added during Boeing update.	resolved	permitted private SD
Boeing – Plant 2	Boeing 3	3.4 E			na	na	na	1	SO3000482D, WA0002917	Outfall was not identified by Herrera but is an active outfall (Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	Boeing 4	3.5 E			na	na	na	1	SO3000482D, WA0002917	Outfall added by Boeing since it was not located by Herrera/City.	resolved	permitted private SD
Boeing – Plant 2	Boeing 5	3.5 E			na	na	na	1	SO3000482D, WA0002917	Outfall is active, but buried in embankment (Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	Boeing 6	3.3 E	(formerly Boeing 11)		na	na	na	1	SO3000482D, WA0002917	This 4-in. pipe was not located by Herrera or Boeing but is presumed to be located near outfall J (Floyd Snider 2006).	resolved	permitted private SD
Boeing – Plant 2	Boeing 7	3.5 E	(formerly Boeing 12)		na	na	na	1	SO3000482D, WA0002917	Outfall added by Boeing since it was not located by Herrera/City.	resolved	permitted private SD
Boeing – Plant 2	Boeing 8	3.7 E	(formerly Boeing 13)		na	na	na	1	SO3000482D, WA0002917	Outfall X was missed during Herrera survey. This outfall is now abandoned, and flow is routed through outfall Z (Floyd Snider 2006).	resolved	abandoned

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boeing – Plant 2	Boeing 9	3.6 E	(formerly Boeing 14)		na	na	na	1	SO300048D, WA0002917	This outfall (located just north of 2059) was not located by Herrera. Outfall formerly drained a portion of the South Yard but is not abandoned (Floyd Snider 2006).	resolved	permitted private SD
Boeing – South Park	SP 1	3.9 W			12-in. concrete	0.5 gpm	unknown SD	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Boeing – South Park	SP 2	3.9 W			na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Boeing – South Park	SP 3	3.8 W			na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Boeing – South Park	SP 4	3.8 W			na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Boeing – South Park	SP 5	3.7 W			na	na	na	1	SO3001009D	Permit for Boeing South Park Facility lists five outfalls (SP1 to SP5)	resolved	permitted private SD
Boeing – South Park	2103	3.8 W	372W		12-in. concrete	0.5 gpm	storm drain	1	none found	No odor, no color. End of pipe chipped off.	unresolved	pipe of unresolved origin and/or use
Boeing – Thompson	2061	3.8 E	228E		24-in. steel	3 gpm	private SD	1	SO3000148D	Permit indicates direct discharge to LDW, permitted under Boeing Development Center.	resolved	permitted private SD
Boeing – Thompson	2077	3.9 E	229E		steel	1 gpm	private SD	1	SO3000148D	Permit indicates direct discharge to LDW, permitted under Boeing Development Center	resolved	permitted private SD
Boyer Logistics, Inc	2114	2.5 W	354W		6-in. concrete	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
Boyer Logistics, Inc	2115	2.4 W	353W		8-in. PVC	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Boyer Logistics, Inc	2116	2.3 W	352W		6-in. plastic	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
Boyer Logistics, Inc	2117	2.3 W	351W		4-in. PVC	none	unknown SD	1	SO3005598A	No specific information provided in permit, but Ecology database lists four outfalls at Boyer facility.	resolved	permitted private SD
Container Properties LLC	2078	4.2 E	236E	Formerly Rhône-Poulenc/ Slip 6	8-in. plug iron	dripping	unknown SD	1	none found	Location identified as stormwater outfall utilized by Rhône-Poulenc. Outfall location may have been abandoned during demolition of onsite buildings. New sub-grade stormwater piping plumbed to City of Seattle storm drains.	resolved	private SD
Container Properties LLC	2079	4.2 E	235E	Formerly Rhône-Poulenc/ Slip 6	6-in. plug iron	none	unknown SD	1	none found	Location identified as stormwater outfall utilized by former Rhône-Poulenc. Pipe securely plugged according to City of Seattle survey.	resolved	abandoned
Corps of Engineers	2006	0.7 E	111E		12-in. metal	trickle	unknown SD	1	none found	No information readily available.	resolved	public SD
Crowley Marine	2042	2.8 E	174E		8-in. PVC	trickle	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
Crowley Marine	5006	2.8 E	175E		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Crowley Marine	5007	2.8 E	173E		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
Crowley Marine	5008	2.8 E	172E		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
Crowley Marine	5009	2.8 E	168E		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
Crowley Marine	5010	2.8 E	163E		8-in. PVC	none	unknown SD	1	Northland Service: SO3003646	No permit located for Crowley/Crowley Marine. Permit for Northland Services identifies six outfalls, that are fairly good matches to the six outfalls identified by City of Seattle survey at Crowley Marine.	tentatively resolved	permitted private SD
Drainage swale	2213	3.7 W	371W		na	na	swale	1	na	Drainage/creek swale	resolved	stream, channel, or swale
Drummond	2140	0.5 W	312W	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc., mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Drummond	2141	0.5 W	313W	State Parks	8-in. steel	none	unknown SD	1	Evergreen Trails: SO3002966C	Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. This location most closely matches latitude and longitude information provided in the permit.	tentatively resolved	permitted private SD
Drummond	2142	0.5 W	314W	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use
Drummond	2143	0.5 W	315W	State Parks	8-in. steel	none	unknown SD	1		Permit for Evergreen Trails, Inc. mentions direct discharge to LDW through one outfall of 5 acres of paved area, similar to observations from City survey. Location/ownership of this pipe unclear.	unresolved	pipe of unresolved origin and/or use
Drummond	2226	0.5 W	311W		na	15 gpm	Ditch	1	na	Ditch at Drummond property	resolved	stream, channel, or swale
Duwamish Shipyard, LLC	2129	1.4 W	329W		6-in. DI	none	unknown SD	1	WA0030937C	Five outfalls listed on permit, but only 1 outfall located in City of Seattle survey. All outfalls may all be routed to single discharge point or routed to a municipal treatment facility.	tentatively resolved	permitted private SD
Duwamish Yacht Club	2100 (B)	4.2 W	376W		6-in. PVC	na	unknown SD	1	none found	Potentially a private SD serving adjacent waterfront property.	unresolved	pipe of unresolved origin and/or use
First South Properties	2216	2.9 E	170E	Cedar Grove/Slip 4 South	6-in. concrete	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
First South Properties	2217	2.9 E	167E	Cedar Grove/Slip 4 South	4-in. steel	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs
First South Properties	2219	2.9 E	166E	Cedar Grove/Slip 4 South	6-in. steel	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SDs
First South Properties	2050	2.9 E	165E	Cedar Grove/Slip 4 South	6-in. concrete	na	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SD
First South Properties	2051	2.9 E	169E	Cedar Grove/Slip 4 South	6-in. concrete	none	unknown SD	1	SO3002641C	Ecology database lists two outfalls (Outfalls A and B) that are matches for two First South locations (permitted). The remaining three outfalls are identified in the Slip 4 SCAP as storm drains.	tentatively resolved	permitted private SD
General Services Administration	2004	0.9 E	113E		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	2005	0.9 E	112E		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	2245	0.9 E	118E		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	2246	0.9 E	114E		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	2247	0.9 E	116E		8-in. concrete	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	5000	0.9 E	115E		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD
General Services Administration	5001	0.9 E	117E		32-in. steel	na	unknown SD	1	none found	No permit located for WA Liquor Control Board.	resolved	public SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Gilmore James Bldg	2021	1.8 E	136E		6-in. PVC	na	unknown SD	1	none found	No information readily available.	tentatively resolved	private SD
Glacier Northwest	2018	1.7 E	135E	East Shore	8-in. PVC	none	unknown SD	1	SO3002227D WAG503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD
Glacier Northwest	2019	1.7 E	133E	East Shore	24-in. concrete	2 gpm	unknown SD	1	SO3002227D WAG503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD
Glacier Northwest	2130	1.4 W	330W	West Shore	15-in. DI	none	unknown SD	1	SO3002227DWA G503191C WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	tentatively resolved	permitted private SD
Hopkins, Frederick	2027	2.3 E	150E		6-in. clay	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
Hopkins, Frederick	2028	2.3 E	149E	Estate Trust	18-in. concrete	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
Hopkins, Frederick	2029	2.3 E	147E	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Hopkins, Frederick	2030	2.3 E	148E	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
Hopkins, Frederick	2032	2.3 E	146E	Estate Trust	3-in. aluminum	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	tentatively resolved	private SD
Hopkins, Frederick	2033	2.3 E	145E	Estate Trust	3-in. PVC	none	unknown SD	1	none found	No permit located for Hopkins Frederick (this is the name of the estate holding the land). May be permitted under Schultz Distributing (SO3002346D) – four outfalls, Seattle Iron & Metal Works (SO3003645C) – one outfall, or Seattle Boilerworks (SO3002208D) – one outfall.	resolved	private SD
James Hardie	2014	1.6 E	130E		24-in. concrete	3 gpm	Settling pond outlet	1	SO3000056D	May also be covered under this permit as an additional overflow outlet.	resolved	permitted private SD
James Hardie	2015	1.6 E	131E		na	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD
James Hardie	2016	1.6 E	132E		na	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
James Hardie	2017	1.5 E	129E		12-in. PVC	none	unknown SD	1	SO3000056D	Permit transferred to BPD Gypsum in Jan 2004 with direct discharge to LDW. Ecology database lists three outfalls (Nos. 1 to 3).	resolved	permitted private SD
Jorgensen Forge	2064	3.7 E	224E		12-in. CMP	2 gpm	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW. Ecology database lists four outfalls.	resolved	permitted private SD
Jorgensen Forge	2065	3.7 E	223E		18-in. concrete	5 gpm	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
Jorgensen Forge	2066	3.7 E	222E		12-in. steel	none	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
Jorgensen Forge	2067	3.7 E	221E		12-in. concrete	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
Jorgensen Forge	2068	3.7 E	220E		4-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
Jorgensen Forge	2069	3.7 E	219E		4-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
Jorgensen Forge	2070	3.6 E	218E		12-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned
Jorgensen Forge	2071	3.6 E	217E		2-in. steel	none	unknown SD	1	SO3003231C	Plugged using concrete in the mid-1980s; dye tracer study confirmed closure (EAA 4 data gaps, citing Farallon and Anchor 2006).	resolved	abandoned

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Jorgensen Forge	2072	3.7 E	225E		18-in. steel	trickle	unknown SD	1	SO3003231C	Five outfalls shown on Jorgensen map within the permit file that discharge directly to LDW.	resolved	permitted private SD
Kenworth Truck Co.	2073	4.0 E	233E		18-in. concrete	trickle	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has 3 permitted outfalls located on the Kenworth property. These may account for 3 to 4 outfalls.	resolved	permitted private SD
Kenworth Truck Co.	2074	3.9 E	232E		8-in. CMP	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD
Kenworth Truck Co.	2075	3.9 E	231E		CMP	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD
Kenworth Truck Co.	2076	3.9 E	230E		30-in. steel	none	unknown SD	1	(Former permit SO3001784) SO3008681A	Kenworth's NPDES permit was terminated in Feb 2003. It remains unclear whether past discharges went directly into the Duwamish. Insurance Auto Auctions (SO3008681) also has three permitted outfalls located on the Kenworth property. These may account for three to four outfalls.	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
King County	2007	1.2 E	122E		18-in. CMP	none	KC SD	1	na	King County storm drains	resolved	public SD
King County	2008	1.2 E	123E		8-in. steel	none	KC SD	1	na	King County storm drains	resolved	public SD
King County	2009	1.3 E	124E		6-in. ductile	none	KC SD	1	na	King County storm drains	resolved	public SD
King County	2010	1.4 E	125E		6-in. PVC	none	KC SD	1	na	King County storm drains	resolved	public SD
King County	2011	1.4 E	126E		12-in. PVC	none	KC SD	1	na	King County storm drains	resolved	public SD
King County	2049	2.8 E	159E		60-in. concrete	200 gpm	KC SD/SPU EOF	1	na	King County Airport SD No. 3 SPU EOF No. 117 (formerly Slip 4 SD)	resolved	EOF/SD
King County	2080	4.2 E	234E		24-in. riveted steel	20 gpm	KC SD	1	na	King County Airport storm drain No. 1	resolved	public SD
King County	2100 (A)	4.2 W	375W	S 96th SD	72-in. CMP	flowing	unknown SD	1	none found	S 96th St SD	resolved	public SD
King County	2107	2.8 W	357W		36-in. RCP	2 gpm	KC CSO	1	na	King County Combined Sewer Overflow 8 th Ave S CSO (040)	resolved	CSO
King County	2153	0.5 E	107E		36-in.	na	KC CSO	1	na	Concrete stormwater system structure, not point of outfall	resolved	not an outfall
King County	2223	1.1 E	121E		18-in. ductile iron	na	KC CSO	1	na	King County Combined Sewer Overflow Brandon St. (041)	resolved	CSO
King County	2244	1.1 E	119E		na	na	KC SD	1	na	King County storm drain	resolved	public SD
King County	2502	1.9 E	139E		8-ft steel gate	none	KC CSO	1	na	King County Combined Sewer Overflow, E Michigan (039)	resolved	CSO
King County	2506	2.0 W	341W		36-in. concrete	none	KC CSO	1	na	King County Combined Sewer Overflow, W Michigan CSO (042)	resolved	CSO
King County	Duwamish Pump Station East (035)	0.5 E			36-in.	na	KC CSO	1	na	King County EOF Duwamish Pump Station East (035)	resolved	EOF

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL NO.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
King County	East Marginal Way S Pump Station (043)	2.8 E						1	na	East Marginal Way South Pump Station King County EOF	resolved	EOF
King County/SPU/ Boeing	2095	4.9 E	253E	KC Norfolk CSO (044)	84 in. 6 ft x 6 ft	10 gpm	KC/SPU CSO/SD	1	see notes	Public storm drain that also receives stormwater discharges from Boeing properties upstream. This discharge is permitted through Boeing Developmental Center (WA031488B or SO3000146C) as DC1. King County's Norfolk CSO (044). Seattle Public Utilities also operates an EOF that discharges through this outfall.	resolved	CSO/SD
Lafarge Corporation	2137	1.2 W	322W		24-in. concrete	5/8 flow	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Lafarge Corporation	2138	1.0 W	317W		6-in. steel	none	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Lafarge Corporation	2139	1.0 W	316W		6-in. DI	none	unknown SD	1	WA0002232	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Lafarge Corporation	5002	1.2 W	318W		36-in. CMP	none	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Lafarge Corporation	5003	1.2 W	319W		32-in. CMP	4 gpm	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Lafarge Corporation	5004	1.2 W	320W		28-in. CMP	trickle	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Lafarge Corporation	5005	1.2 W	321W		48-in. concrete	trickle	unknown SD	1	WA0002232E	Permit gives range coordinates for outfalls, but no specific number. All unknowns are likely covered by this permit.	resolved	permitted private SD
Longview Fibre	2013	1.4 E	128E		12-in. concrete	trickle	unknown SD	1	SO3000206D	Direct discharge to LDW.	resolved	permitted private SD
N of Bridge	2022	1.9 E	137E		8-in. PVC	0.5 gpm	unknown SD	1	none found	No information readily available. Located near several other public SDs, so may be KC or SPU outfall.	unresolved	pipe of unresolved origin and/or use
Port	2148	0.0 W	301W		12-in. CPE	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2149	0.0 W	300W		24-in. CPE	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2150	0.1 W	302W		18-in. CPE	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2151	0.1	104E		15-in. CMP, behind headwall	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2154	0.1 E	103E		6-in. concrete	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2156	0.0	102E		18-in. CMP at headwall DI	20 gpm	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2209	3.6 W	370W		8-in. PVC	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2210	3.6 W	369W		4-in. and 3-in. iron	na	not an outfall	1	na	Pipe location identified as suspected abandoned in Herrera survey. Pipe noted during site activities but identified as miscellaneous shoreline debris and not an outfall.	resolved	not an outfall
Port	2211	3.6 W	368W		4-in. CPE	none	not an outfall	1	na	Pipe location identified as suspected abandoned in Herrera survey. Pipe noted during site activities but identified as miscellaneous shoreline debris and not an outfall.	resolved	not an outfall

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Port	2212	3.6 W	366W		6-in. PVC	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2220	1.8 W	333W		24-in. concrete	na	Port SD	1	na	Port of Seattle storm drains	resolved	public SD
Port	2225	0.6 E	109E		18-in. concrete	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2232	0.2 W	304W		18-in. CPE	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port	2233	0.1 W	303W		na	na	channel	1	na	Drainage channel constructed by Port at T-105	resolved	stream, channel, or swale
Port of Seattle/Delta Marine	2205	4.3 W	377W		na	na	creek	1	none found	Creek outlet on Port property south of S 96 th , just south of Delta crane.	resolved	stream, channel, or swale
Port/Harbor Real Estate	HRE 1	0.1					unknown SD	1	none found	Outfall located on Port property adjacent to Harbor Real Estate. Discharge of stormwater from both properties likely.	tentatively resolved	public SD
Port – Sea Freeze	Port - SF	1.9 W					Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port – Terminal 115	2122	1.9 W	338W		24-in. concrete	1 gpm	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port – Terminal 115	2123	1.9 W	334W		12-in. CMP	none	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port – Terminal 115	2124	1.9 W	336W		18-in. concrete lined DI	na	Port SD	1	na	Port of Seattle storm drain	resolved	public SD
Port – Terminal 115	2128	1.5 W	331W	West Shore	15-in. CMP	under-water	unknown SD	1	SO3002227D WAG503191D WAG503347	Map in permit shows two clear outfalls, and mentions various other ditches/drainage points.	resolved	public SD
R&A Properties	2037	2.6 E	155E		10-in. steel	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database which may cover these outfalls.	resolved	permitted private SD
R&A Properties	2038	2.6 E	162E		6-in. concrete	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database which may cover these outfalls.	resolved	permitted private SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
R&A Properties	2039	2.6 E	161E		6-in. concrete	none	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database which may cover these outfalls.	resolved	permitted private SD
R&A Properties	2040	2.6 E	164E		12-in. concrete	trickle	unknown SD	1	Puget Sound Trucking: SO300949	Permit for Puget Sound Trucking has five outfalls in Ecology database which may cover these outfalls.	resolved	permitted private SD
SCS Holdings	2024	2.0 E	141E		12-in. concrete	10 gpm	unknown SD	1	SCS Refrigerated Services: SO3005565A	Permit for SCS Refrigerated Services corresponds with three outfalls in the Ecology database. All permitted outfalls may be routed to this one discharge point or may be routed to a municipal treatment facility.	resolved	permitted private SD
Seattle City Light	2041	2.7 E	171E		4-in. concrete	na				This outfall was originally identified as the old water intake for the Georgetown steam plant but more recent investigations have determined that it is a pipe of unknown origin.	resolved	pipe of unresolved origin and/or use
Seattle City Light	2047	2.8 E	156E		72-in. CMP	na	City SD	1	na	Seattle City Light storm drain Georgetown flume	resolved	public SD
Seattle City Light	2098	4.5 W	379W		6-in. CMP	none	City SD	1	na	Seattle City Light storm drain	resolved	public SD
Seattle City Light	2099	4.4 W	378W		6-in. CMP	dripping	City SD	1	na	Seattle City Light storm drain	resolved	public SD
Shalmar Group	2034	2.5 E	152E		6-in. steel	none	unknown SD	1	Seattle Iron & Metal Works: SO3003645	Permit for Seattle Iron & Metal Works may correspond to this outfall.	resolved	permitted private SD
Slip 6 – Non-Boeing	2083	4.2 E	239E		6-in. steel	discharge	unknown SD	1	none found	Not a Boeing permitted outfall. Boeing has investigated this pipe and believes that it is a drain from an underground utility vault that predates Boeing's use of this property. Boeing is in the process of having this pipe plugged.	resolved	abandoned

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
Slip 6 – Non-Boeing	2084	4.2 E	240E		6-in.	dripping	unknown SD	1	none found	Not a Boeing permitted outfall. Boeing has investigated this pipe and believes that it is a drain from an underground utility vault that predates Boeing's use of this property. Boeing is in the process of having this pipe plugged.	resolved	abandoned
S 92nd Pl	2101	4.0 W	374W		18-in. concrete	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
S Chicago St	2109	2.9 W	362W		11-in. wood	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
S Chicago St	2110	2.9 W	361W		15-in. concrete	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
S Chicago St	2111	2.9 W	360W		12-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
S Othello St	2036	2.6 E	154E	Puget Sound Truck Lines, Inc.	8-in. steel	none	unknown SD	1	SO3000949	Permit for Puget Sound Trucking has five outfalls in Ecology database which may cover these outfalls. Outfall likely also drains adjacent street surface.	resolved	permitted private SD
S Portland St	2106	2.8 W	358W		24-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use
S Portland St	2108	2.8 W	359W		8-in. DI	none	unknown SD	1	none found	No information readily available – likely drains adjacent property.	unresolved	pipe of unresolved origin and/or use

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
S Southern St	3037	3.2 W	363W		18-in. CMP	none	unknown SD	1	none found	No information readily available – likely drains adjacent street surface and may drain upland permitted locations. The City does not have any storm drains in this area .	tentatively resolved	pipe of unresolved origin and/or use
S Webster St	2113	2.6 W	355W		6-in. concrete	moist	unknown SD	1	none found	No information readily available – likely drains adjacent street surface and may drain upland permitted locations.	tentatively resolved	public SD
South Park Marina	2214	3.5 W	365W		12-in. CMP	na	unknown SD	1	WAG030045C	Direct discharge to LDW.	resolved	permitted private SD
SPU	2002	0.6 E	108E		30-in. steel	drip	KC or SPU CSO/SD	1	na	Seattle Public Utilities abandoned treatment facility outfall (Duwamish Diagonal SCAP documentation)	resolved	abandoned
SPU	2003	0.7 E	110E		12-in. steel	trickle	unknown SD	1	none found	Diagonal Ave S SD	resolved	public SD
SPU	2026	2.3 E	151E		30-in. ductile	none	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
SPU	2035	2.5 E	153E		30-in. DI	trickle	City SD	1	na	Seattle Public Utility storm drains	resolved	public SD
SPU	2048	2.8 E	158E		24-in. concrete	none	City SD	1	na	North Boeing Field SD Storm drain outfall owned by SPU but only receives runoff from North Boeing Field (formerly Slip 4 CSO/SD (117).	resolved	public SD
SPU	2112	2.7 W	356W		na	na	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
SPU	2118	2.2 W	350W		24-in. concrete	none	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
SPU	2125	1.9 W	335W		72-in. concrete	100 gpm	City SD	1	na	Seattle Public Utility storm drain	resolved	public SD
SPU	S Brighton St	2.1 E					SPU CSO/SD	1	na	Seattle Public Utility CSO/SD – old outfall layer. Outfall not found during field survey. Location plotted from SPU GIS.	resolved	CSO/SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
SPU/Boeing	3031	3.3 E	187E		8-in. concrete	na	City SD	1	na	According to City records, this outfall serves the southern portion of 16 th Ave S and the Boeing facility at 7755 E Marginal Way, with cross connection and discharge through outfall No. 3032. This particular location is not an outfall	resolved	not an outfall
SPU/Boeing	3032	3.3 E	186E		12-in. DI	dripping	public SD	1		Outfall drains both public roadways and Boeing Plant 2 (Outfall J). Shared-use identified (Floyd Snider 2006). Side sewer card confirms that this pipe drains both Boeing facilities and roadway.	resolved	public SD
SPU/King County	2062	3.8 E	227E		48-in. CMP	20 gpm	SPU/KC EOF	1	na	Seattle Public Utility EOF (No. 156) King County Airport SD No. 2	resolved	EOF/SD
SPU/King County	2127	1.5 W	332W		48-in. concrete	50 gpm	KC CSO/ City SD	1	na	Terminal 115 CSO (038)/SW Kenny SD.	resolved	CSO/SD
SPU/King County	2155	0.5 E	106E		144-in. concrete	2 ft/sec	SPU and KC CSO/SD	1	na	Seattle Public Utility Diagonal CSO (No. 111) and King County Hanford No. 1 (031)/Bayview CSO; Seattle Public Utility SD	resolved	CSO/SD
SW Idaho St	2144	0.3 W	307W		10-in. DI	under-water	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
SW Idaho St	2145	0.3 W	308W		4-in. DI	none	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
SW Idaho St	2146	0.3 W	306W		6-in. DI	none	unknown SD	1	none found	No information readily available – may drain adjacent property.	unresolved	pipe of unresolved origin and/or use
SW Idaho St	2147	0.3 W	305W		72-in. concrete	under-water	unknown SD	1	none found	SPU storm drain	resolved	public SD

Table H-2, cont. Outfalls ordered by owner/outfall operator

LAND OWNER/OPERATOR ID		RIVER MILE	OUTFALL IDENTIFICATION		PIPE DESCRIPTION		OUTFALL TYPE	No. OF OUTFALLS	PERMIT NUMBER	NOTES FROM PERMIT AND OTHER PERTINENT INFORMATION	CURRENT STATUS	PROPOSED DESIGNATION
LAND OWNER/ OUTFALL OPERATOR	OUTFALL No.		SECONDARY ID ^a	SECONDARY OWNER ID	DIAMETER/ MATERIAL	FLOW RATE ^b						
TBD	2059	3.6 E	216E		24-in. CMP	2 gpm	unknown SD	1	SO3000482D, WA0002917	The current SD system partially drains KC airport and part of E Marginal Way and runs along Jorgensen Forge. Boeing and Jorgensen Forge also had historical connections but do not currently discharge to this SD system (Floyd Snider 2006).	unresolved	public SD ^c
unknown	2501	1.9 E	140E		48-in. concrete	none				Flapper valve in good condition.	unresolved	pipe of unresolved origin and/or use
WSDOT	2503	1.9 E	138E		36-in. concrete	none	WSDOT SD	1	na	1 st Ave S bridge SD	resolved	public SD
WSDOT (Slip 4)	2046	2.8 E	157E		72-in. steel	50 gpm	WSDOT SD	1	na	WSDOT storm drain. Also receives runoff from 40 ac east of I-5. May accept discharge from North Boeing Field (SO3000226) via storm drains.	resolved	public SD
WSDOT, Turning basin – SW shoreline	2200	4.6 W	380W		30-in. CMP	na	unknown SD	1	none found	Outfall location corresponds with WSDOT discharge point for SR 99.	resolved	public SD
WSDOT, Turning basin – NW shoreline	2201	4.6 W	381W		36-in. CMP	3 gpm	unknown SD	1	none found	Outfall location corresponds with WSDOT discharge point for SR 99.	resolved	public SD

^a Numbers assigned by SPU that run sequentially from north to south along waterway for easier identification of outfall locations. E-W indicates east and west side of waterway.

^b Visual observations from field survey completed May 16 to 20, 2003, and June 2 to 11, 2003.

^c Because the ownership of this outfall is to be determined, the proposed designation reflects current use of the outfall only.

ABS – acrylonitrile butadiene styrene

CFS – cubic feet per second

CMP – composite construction

CSO – combined sewer overflow

DI – diameter

E – east

EOF – emergency overflow

FS – Floyd Snider

gpm – gallon per minute

ID – identification

KC – King County

LDW – Lower Duwamish Waterway

na – not available

NPDES – National Pollutant Discharge Elimination System

PVC – polyvinyl chloride

RCP – reinforced concrete pipe

RI – remedial investigation

SCAP – source control action plan

SCL – Seattle City Light

SD – storm drain

SPU – Seattle Public Utilities

TBD – to be determined

W – west

WA – Washington

WSDOT – Washington State Department of Transportation

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