

# **Stormwater Outfall Inventory and Mapping City and Borough of Juneau**

Date of field work: 5/08 -9/08

## **Purpose of Project:**

The intent of the project was to inventory and assess existing outfalls along impaired waterbodies in the urbanized service area. These waterbodies include Duck Creek, Jordan Creek, Vanderbilt Creek, Lemon Creek and Pederson Hill Creek. Additional time and funding allowed for the inventory of outfalls along Gastineau Channel from Thane to the Mendenhall Valley and Douglas.

## **Summary of Work:**

A technician for the City and Borough of Juneau (CBJ) located outfalls along streams using a handheld GPS and aerial photographs. Data sheets were filled out onsite recording information about the outfall and the contributing drainage area. The data was entered into ArcGIS using aerial photography to locate the outfall. Maps were created by CBJ staff in 2010.

## **How to Use the Report:**

The numbers on the individual maps (1-105) identify specific outfalls throughout Juneau. Each number corresponds to a data entry for that outfall in the data tables. Photographs of each outfall were taken and these photos can be provided upon request. The outfall data is a shapefile with attribute data (including raster photo). This can be provided upon request also.

This inventory and assessment involved the best effort of one technician to field locate outfalls, there may be additional outfalls on these waterbodies that are not identified in this report.

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Site #	Map #	Water Body	Adjacent Streets	Type	Material	Condition	Pipe Condition	Diameter	Contamination	Water Quality	Inlet Description	COMMENTS	LATITUDE	LONGITUDE
1	13	Vanderbilt Creek	Vanderbilt Hill Rd.	Pipe to ditch	Concrete		3/4 blocked	24		clear	Residential	dead earthworms here and downstream	58 20 926	134 29 586
2	13	Vanderbilt Creek	Vanderbilt Hill Rd	pipe	metal		partially blocked	0	hydrocarbons	clear			58 20.892'	134 29.713'
3	13	Vanderbilt Creek	Galcier HW & Short St.	Pipe	Concrete		Not Blocked	8	parking Lot	no water present	Commercial		N58 21.037	W134 29.494
4	13	Vanderbilt Creek	Glacier HW & Short St.	Pipe	Concrete		Not Blocked	8	parking Lot	no water present	Commercial	ditch coming from pipe downcut	N58 21.045	W134 29.489
5	13	Vanderbilt Creek	Glacier HW & Short St.	Pipe	Concrete		Not Blocked	8	parking Lot	no water present	Commercial	ditch coming from pipe undercut	N58 21.042	W134 29.489
6	13	Vanderbilt Creek	Vanderbilt Hill Rd.	Ditch		Good		60	garbage, hydrocarbons, soapy look, sulfer smell	turbid, iron floc	Industrial	comes from industrial area ditch	N58 20.878	W134 29.745
7	13	Vanderbilt Creek	Vanderbilt Hill Rd.	Ditch		wetland to ditch		60	hydrocarbons, garbage, soapy look, sulfer smell	turbid, iron floc	Industrial	pollutants come from industrial area, 4 outfalls	N58 20.878	W134 29.745
8	10	Lemon Creek	Davis Ave and Churchill Way	Pipe	Plastic		Not blocked	14		no water present	Residential		N58 21.591	W134 29.507
9	8	Lemon Creek	City Gravel Pit	Pipe	Plastic		Not blocked	20		clear	Industrial		N58 21.949	W134 28.728
10	7	Duck Creek	Radcliffe Rd.	Pipe	Metal		Not blocked	36		no water present	Commercial (Airport)	BMPs: Mitigate at source, if nessesary.	N58 22.570	W134 35.858
11	6	Duck Creek	Glacier HW	Pipe	Plastic		Not blocked	23		no water present	Street	sheet flow off street through storm drain	N58 21.861	W134 35.311 Acc
12	6	Duck Creek	Glacier HW	Ditch		Stabilized and grassy		36		no water present	Residential and commercial		N58 21.943	W134 35.421 Acc
13	6	Duck Creek	Mendenhall Loop Rd.	Pipe	Cement		Not blocked	11		no water present	Residential and commercial		N58 21.965	W134 35.429 Acc
14	6	Duck Creek	Mendenhall Loop Rd. and Del Rae Rd.	Pipe	Metal		Not blocked	19		no water present	Street	street storm drain	N58 22.042	W134 35.361 Acc
15	6	Duck Creek	Mendenhall Loop Rd. and Del Rae Rd.	Pipe	Plastic		Not blocked	23		no water present	Street	street storm drain	N58 22.061	W134 35.336 Acc
16	6	Duck Creek	Mendenhall Loop Rd and Hurlock Ave.	Pipe	Plastic		1/8 blocked	23		no water present	Residential and commercial	deposition on ditch from pipe to creek bed	N58 22.097	W134 35.301 Acc
17	6	Duck Creek	Mendenhall Loop Rd. and Egan Dr.	Pipe	Plastic		Not blocked	30		no water present	Residential and commercial	comes from storm drain on street and ditch	N58 22.147	W134 35.244 Acc
18	6	Duck Creek	Mendenhall Loop Rd. and Egan Dr.	Pipe	Metal		Not blocked	96		no water present	Residential and commercial	comes from ditch alongside Egan Dr.	N58 22.231	W134 35.184 Acc
19	6	Duck Creek	Mendenhall Loop Rd. and James Blvd.	Ditch		Stabilized and grassy		84	garbage, and hydrocarbons	iron floc	Residential and commercial	BMPs: Detention pond, or infiltration basin	N58 22.365	W134 35.079
20	5	Duck Creek	Mendenhall Loop Rd. and Nancy St.	Pipe	Plastic		Not blocked	12		iron floc	Residential		N58 22.550	W134 34.647
21	9	Vanderbilt Creek	Commercial Blvd	Pipe	Plastic		Not blocked	0		clear	Vanderbilt Creek itself			

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22	9	Vanderbilt Creek	Commercial Blvd	river culvert	Plastic		Not blocked	0		clear		This is not an outfall, it is the BMP for river		
23	11	Lemon Creek	Glacier HW	pipe	Plastic		Not Blocked	28		no water present	Industrial		N58 21.296	W134 30.158
24	11	Lemon Creek	Glacier HW and landfill	Ditch		Down-cut		60	garbage	turbid, mossy	Industrial		58 21.283N	134 30.199W
25	11	Lemon Creek	Glacier HW, & Davis Ave.	Pipe	Plastic		Not blocked	22	garbage	clear	Residential	rocks, and grass, nice outfall	no reading	
26	11	Lemon Creek	Davis Ave. and Glacier HW	Pipe	Plastic		Not blocked	14	garbage	clear	Residential	rocks, and grass, nice outfall	not good accuracy	
27	10	Lemon Creek	Davis Ave and Churchill Way	Pipe	Plastic		Not blocked	14	garbage	no water present	Residential	rocks and grass and a little undercutting	N58 21.571	W134 29.547
28	10	Lemon Creek	Davis Ave and Churchill Way	Pipe	Plastic		Not blocked	28	garbage	no water present	Residential		N58 21.588	W134 29.471
29	8	Lemon Creek		Pipe	Metal		Not blocked	24		clear	Industrial	rocks and trees, looks good	N58 21.637	W134 29.030
30	8	Lemon Creek	City Gravel Pit	Two Pipes	Metal and plastic		Not blocked	30		clear	Industrial	rocks and vegetation, looks good	N58 21.717	W134 21.831
31	8	Lemon Creek	City Gravel Pit	2 Pipes	Plastic and metal		Not blocked	0		clear	Industrial	rocks and grass, looks good	N58 21.717	W134 21.831
32	8	Lemon Creek	City Gravel Pit	Pipe	Plastic		Not blocked	20		clear	Industrial	rocks and vegetation	N58 21.949	W134 28.728
33	5	Duck Creek	Mendenhall Loop Rd.	Ditch		Stabilized and grassy		180		no water present	Commercial		N58 22.594	W134 34.824
34	5	Duck Creek	Cinema Dr. and Mendenhall Loop Rd.	Ditch		Stabilized, grassy		60		no water present	Residential and commercial		N58 22.872	W134 34.647
35	4	Duck Creek	Mendenhall Loop Rd. and McGinnis Dr.	Pipe	Metal	Stabilized, grassy	Not blocked	12		no water present	Residential		N58 23.189	W134 34.492
36	4	Duck Creek	Sanders St. and McGinnis Dr.	Pipe	Cement		Not blocked	30		no water present	Residential		N58 23.269	W134 34.500
37	4	Duck Creek	Sanders St. and McGinnis Dr.	Ditch		Stabilized, grassy		48		no water present	Residential		N58 23.325	W134 34.493
38	11	Lemon Creek	Davis St. and Glacier HW	Pipe	Plastic			24			Industrial	street drain outfall	N58 21.489	W134 29.842 Acc
39	6	Jordan Creek	Glacier HW and Cascade St.	Pipe	Metal		Not blocked	22		no water present	Residential, commercial	could be street drainage, it is a big pipe	N58 21.845	W134 34.836, Acc
40	2	Jordan Creek	Thunder Mountain Rd and Mendenhall Loop Rd	Ditch		Muddy and unstable.		20	sediment, hydrocarbons	no water present	Residential	heavy sediment load, revegetate area	N58 23.641	W134 33.251, Acc
41	19	Gastineau Channel	S. Franklin, and Thane Rd.	Pipe	Plastic		Not blocked	6		no water present	Commercial, street	Probably a parking lot drain	58 17.625	134 23.833, Accur
42	19	Gastineau Channel	S Franklin and Thane Rd.	Pipe	Metal		Not blocked	17		no water present	Street?	could be an old street drain	58 17.633	134 23.840, Accur
43	19	Gastineau Channel	S. Franklin St. and Thane Rd.	Pipe	Plastic		Not blocked	0		no water present	street	from street?	58 17.675	134 23.941, Accur

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44	18	Gastineau Channel		Pipes	plastic and metal		Not blocked (plastic), and damaged (metal)	24		no water present	Street?	street flow? Metal pipe functional?	58 17.812	134 24.120, Accu
45	18	Gastineau Channel	Library and Franklin	Pipe	Metal		Not blocked	24		no water present	Not sure	street and creek runoff?	N58 17.844	W134 24.224, Acc
46	18	Gastineau Channel	Marine Way and Ferry Way	Pipe	under water			0			Downtown Juneau	very big and underwater	N58 17.907	W134 24.755, Acc
47	18	Gastineau Channel	Egan Dr, the Coast Guard	Pipe				0			Street	under deck, not visible	N58 17.895	W134 24.792, Acc
48	2	Jordan Creek	Trafalga and Thredneedle Sts.	Pipe				0		no water present	Street	goes into grassy ditch	N58 23.679	W134 33.159 Acc
49	5	Duck Creek	Hayes Way and Tongass Blvd.	Pipe			1/8 blocked	18	sediment, organic debris, garbage, hydrocarbons	iroc floc	Residential	stable ditch flow to pipes	N 58 22.848	W134 34.460
50	5	Duck Creek	Nancy St, and Mendenhall Loop Rd.	Pipe		Not blocked		24		no water present	Residential	submerged	58 22.513	134 34.702 Accur
51	4	Duck Creek	El Camino St. and Mendenhall Loop Rd.	Ditch		Stable vegetated		36	herbicide	no water present	Residential	resident is using Roundup in ditch	N 58 23.263	W134 34.388, Ac
52	3	Duck Creek	Aspen St, and Pinewood Dr.	Ditch		Stabilized, grassy.		30		no water present	Residential		N58 23.469	W134 34.549, Acc
53	3	Duck Creek	Aspen Ave. and Pinewood Dr.	Pipe	Plastic		Not blocked	24	organic debris	turbid	Residential	new pipe, stable grass ditch	N58 23.464	W134 34.549, Acc
54	3	Duck Creek	Mendenhall Blvd and Birch Lane	Pipe	Plastic		1/8 blocked	20	organic debris	turbid, iron floc	Residential	street drain to little settling pond	N58 23.559	W134 34.257, Acc
55	3	Duck Creek	Aspen St, and Pinewood Dr.	Ditch				36		Iron floc	Residential		N58 23.533	W134 34.437
56	6	Duck Creek	Mendenhall Loop Rd. and James Blvd.	Pipe			severely bent	12		turbid	Residential, commercial		N58 22.369	W134 35.013, Acc
57	20	Sheep Creek/Gastineau Channel	Thane Rd, and Sheep Cr Powerhouse Rd	Pipe	Metal		Not blocked	30		clear	Residential	comes from street ditches	N58 15.546	W134 19.396 Acc
58	19	Gastineau Channel	Thane Rd. and Mt. Roberts St.	Pipe	Metal		Not blocked	24		clear	Industrial	probably from street and parking lot	N58 17.067	W134 23.253 Acc
59	19	Gastineau Channel	S. Franklin St. and Thane Rd.	Pipe	Metal		Not blocked	30	hydrocarbons	no water present	Commercial	cruise ship parking lot	N58 17.599	W134 23.787, Acc
60	19	Gastineau Channel	S Franklin St.	Pipe	Metal		Not blocked	30	hydrocarbons	no water present	St. and parking lot	parking lot and street	N58 17.599	W134 23.787, Acc
61	19	Gastineau Channel	S. Franklin and Thane Rd.	Pipe	Metal		Not blocked	24		no water present	Street	looks like old street drain	N58 17.604	W134 23.806, Acc
62	1	Peterson Creek	Engineer Cutoff Rd.	Ditches (two)		Stabilized, grassy		72		clear	Residential, street		N58 22.261	W134 37.500
63	3	Duck Creek	Mendenhall Blvd.	Pipe	Plastic		Not blocked	16		no water present	Residential, street	pollutants not present	N58 23.545	W134 34.235, Acc
64	3	Duck Creek	Taku Blvd.	Ditch		Stabilized, grassy		36		no water present	Residential, street		N58 23.740	W134 34.046, Acc

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65	17	Gastineau Channel	Egan Dr., and	Pipe	Metal		Not blocked	72	garbage	clear		street drains		
66	17	Gastineau Channel	Egan Dr., and W. Twelfth St.	Pipe	Cement		Not blocked	0	hydrocarbons, sediment	turbid	Street	D&H has concerns with this outfall		
67	17	Gastineau Channel	Egan Dr. and Harbor Office parking lot	Pipe	Cement		Not blocked	36	street flow/natural flow, high volume	clear	street and natural flow	water force moves manhole, 10' drop	N58 18.248	W134 25.861, Acc
68	17	Gastineau Channel	Egan Dr. and Aurora Harbor	Pipe	Metal		Not blocked	0	garbage, sediment, hydrocarbons	clear	street and natural flow	high pressure flow, silt buildup		
69	16	Gastineau Channel	Channel Dr., and Egan Dr.					0	Hydrocarbon potential	clear	commercial	outfall underwater, natural and parking lot	N58 19.584	W134 27.886, Acc
70	16	Gastineau Channel	Channel Dr.	Pipe	Plastic		Not blocked	22	hydrocarbons	clear	parking lot and street		N58 19.628	W134 28.099, Acc
71	15	Gastineau Channel	Glacier HW & Wire St.	Pipe	Metal		Not blocked	24		clear	residential street	natural and street flow	N58 19.959	W134 28.377, Acc
72	15	Gastineau Channel	Glacier HW and Wire St.	Pipe	Metal		Not blocked	36		clear	residential street	natural and street flow	N58 20.056	W134 28.517, Acc
73	15	Gastineau Channel	Glacier HW and Wire St.	Pipe	Metal		Not blocked	24		clear	residential street	natural and street flow	N58 20.073	W134 28.564, Acc
74	15	Gastineau Channel	Glacier HW and Wire St.	Pipe	Plastic		1/2 blocked	30	sediment	clear	residential street	natural and street flow	N58 20.125	W134 28.702, Acc
75	15	Gastineau Channel	Glacier HW and Blackerby St.	Pipe	Metal		Not blocked	24		clear	residential street	natural and street flow	N58 20.188	W134 28.874, Acc
76	15	Gastineau Channel	Glacier HW and Blackerby St.	Pipe	Metal		Not blocked	30		clear	residential street	natural and street flow	N58 20.212	W134 29.012, Acc
77	15	Gastineau Channel	Glacier HW and Blackerby St.	Pipe	Metal		Not blocked	24		clear	residential street	natural and street flow	N58 20.209	W134 28.976, Acc
78	25	Falls Creek/Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		60	hydrocarbon potential	no water present	street		N58 19.374	W134 28.904, Acc
79	25	Falls Creek/Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		60	hydrocarbon potential	no water present	street		N58 19.374	W134 28.904, Acc
80	25	Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		78	Hydrocarbon potential	no water present	street	no BMP's needed	N58 19.097	W134 28.384, Acc
81	25	Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		78	Hydrocarbon potential	no water present	street	no BMP's needed	N58 19.097	W134 28.384, Acc
82	24	Eagle Creek/Gastineau Channel	N. Douglas HW by mobile homes	Ditch		Stabilized, grassy		84	Hydrocarbon potential	no water present	street		N 58 18.760	W134 27.599, Acc
83	24	Grant Creek/Gastineau Channel	N Douglas HW	Ditch		Stabilized, grassy		96	Hydrocarbon potential	no water present	street		N58 18.197	W134 27.031, Acc
84	24	Grant Creek/Gastineau Channel	N Douglas HW	Ditch		Stabilized, grassy		96	Hydrocarbon potential	no water present	street		N58 18.197	W134 27.031, Acc

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85	14	Gastineau Channel	Glacier HW and Blackerby St.	Pipe	Metal		Not blocked	30		clear	residential street	natural and street flow	N58 20.236	W134 29.254, Acc
86	14	Gastineau Channel	Glacier HW and Craig St.	Pipe	Metal		Not blocked	30		clear	residential street	natural and street flow	N58 20.484	W134 29.508, Acc
87	7	Gastineau Channel	W. end of float plane runway	Pipe	Metal		Not blocked	36	hydrocarbons	no water present	airport	outfall for runway?	N58 21.410	W134 36.000, Acc
88	27	Gastineau Channel	N. Douglas HW	point source		Stabilized, grassy		60		clear	street	stable vegetated	N58 19.805	W134 35.588, 58'
89	27	Fish Creek/ Gastineau Channel	N. Douglas HW	Ditch		Stabilized, grassy		60		clear	street		N58 19.805	W134 35.588, Acc
90	26	Neilson Creek/ Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		72	hydrocarbon potential	no water present	street		N58 19.894	W134 29.982, Acc
91	26	Neilson Creek/ Gastineau Channel	N Douglas HW	Ditches		Stabilized, grassy		72	hydrocarbon potential	no water present	street		N58 19.894	W134 29.982, Acc
92	17	Gastineau Channel	Douglas HW	Pipe	Plastic		Not blocked	7		clear	residential	unclear as to source	N58 17.653	W134 25.692, Acc
93	17	Gastineau Channel	Douglas HW	Pipe	Plastic		Not blocked	24	unclear source	clear	residential		N58 17.646	W134 25.687, Acc
94	23	Gastineau Channel	Douglas HW	Pipe	Plastic		Not blocked	25	unclear source	clear	residential		N58 17.310	W134 25.013, Acc
95	23	Gastineau Channel	Douglas HW	Pipe	Plastic		Not blocked	30	unclear source	clear	residential		N58 17.269	W134 24.925, Acc
96	23	Gastineau Channel	Douglas HW	Pipe	Metal		Not blocked	30	unclear source	clear	residential		N58 17.248	W134 24.919, Acc
97	23	Gastineau Channel	Douglas HW	Pipe	Plastic		Not blocked	40	unclear source	clear	residential		N58 17.200	W134 24.754, Acc
98	22	Gastineau Channel	2nd St.	Pipe	Plastic		Not blocked	12	unclear source	clear	residential		N58 16.925	W134 24.139, Acc
99	22	Gastineau Channel	1st Street	Pipe	Plastic		Not blocked	7	source unclear but could be yard and street	clear	residential street		N58 16.817	W134 23.893, Acc
100	22	Gastineau Channel	1st Street	Pipe	Plastic		Not blocked	24	hydrocarbons	clear	street		N58 16.720	W134 23.691, Acc
101	21	Gastineau Channel	Savikko Rd.	Pipe	Cement		Not blocked	46	garbage	clear	street		N58 16.549	W134 23.422, Acc
102	21	Gastineau Channel	Savikko Rd.	Pipe	Metal		3/4 blocked	40	sediment	clear	street? Source not clear	perhaps a very old pipe, may not be in use	N58 16.423	W134 23.167, Acc
103	23	Lawson Creek/ Gastineau Channel	Douglas HW, and Creek St.	Ditch		Stabilized, grassy		84	hydrocarbon potential	clear	street	not a big problem due to stable grassy ditch	N58 17.080	W134 24.644, Acc
104	23	Gastineau Channel	Vista Drive and Douglas HW	Ditch		Stabilized, grassy		36	hydrocarbon potential	no water present	neighborhood, streets	comes from neighborhood drainage	N58 17.183	W134 24.868, Acc
105	12	Switzer Creek	Glacier HW	Ditch		Stabilized, grassy		72	hydrocarbon potential, sediment	turbid	street		N58 21.570	W134 30.525, Acc