

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-100-01	JUNC-79-02	1.54	1.85	2.24	2.37	Possible Risk
JUNC-100-02	JUNC-100-01	2.01	2.34	2.87	3.04	High Risk
JUNC-100-03	JUNC-100-02	2.89	3.40	4.15	4.41	High Risk
JUNC-100-04	JUNC-100-03	0.40	0.65	0.93	1.02	Minimal Risk
JUNC-100-04	JUNC-100-03	2.95	2.95	2.95	2.95	High Risk
JUNC-10-01	JUNC-1-11	0.48	0.57	0.97	1.20	Minimal Risk
JUNC-10-02	JUNC-10-01	0.07	0.13	0.08	0.05	Minimal Risk
JUNC-101-01	JUNC-82-03	3.48	4.60	4.27	4.22	High Risk
JUNC-101-01	JUNC-82-03	0.00	0.00	0.20	0.23	Minimal Risk
JUNC-1-02	OUT-1-01	4.48	5.16	6.73	7.43	Minimal Risk
JUNC-102-01	JUNC-82-04	0.61	1.47	2.44	2.71	Minimal Risk
JUNC-102-01	JUNC-82-04	4.42	4.42	4.42	4.42	High Risk
JUNC-102-02	JUNC-102-01	0.88	1.63	2.67	2.94	Minimal Risk
JUNC-102-02	JUNC-102-01	3.45	3.45	3.45	3.45	High Risk
JUNC-102-03	JUNC-102-02	3.26	3.37	3.21	3.21	High Risk
JUNC-102-03	JUNC-102-02	0.74	1.16	1.81	1.99	Minimal Risk
JUNC-102-04	JUNC-102-03	4.70	4.77	4.76	4.74	High Risk
JUNC-102-04	JUNC-102-03	0.31	1.77	2.21	2.46	Minimal Risk
JUNC-102-05	JUNC-102-04	1.54	1.67	1.67	2.03	Minimal Risk
JUNC-102-06	JUNC-102-05	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-1-03	JUNC-1-02	6.82	7.81	10.17	11.23	High Risk
JUNC-103-01	JUNC-82-05	3.90	3.90	3.89	3.89	High Risk
JUNC-103-01	JUNC-82-05	0.34	0.77	1.22	1.39	Minimal Risk
JUNC-1-04	JUNC-1-03	4.62	5.31	6.91	7.63	High Risk
JUNC-104-01	JUNC-96-03	0.41	1.43	2.54	2.82	Minimal Risk
JUNC-104-01	JUNC-96-03	3.88	3.88	3.89	3.89	High Risk
JUNC-104-02	JUNC-104-01	0.67	1.40	2.27	2.49	Minimal Risk
JUNC-104-02	JUNC-104-01	4.11	4.11	4.11	4.11	High Risk
JUNC-104-03	JUNC-104-02	0.00	0.00	2.17	2.53	Minimal Risk
JUNC-104-03	JUNC-104-02	4.80	6.01	6.02	6.02	High Risk
JUNC-1-05	JUNC-1-04	4.55	5.24	6.82	7.53	High Risk
JUNC-105-01	JUNC-100-01	1.37	1.71	1.83	1.91	Minimal Risk
JUNC-105-02	JUNC-105-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-105-02	JUNC-105-01	3.85	4.58	5.24	5.40	High Risk
JUNC-1-06	JUNC-1-05	4.55	5.23	6.81	7.52	High Risk
JUNC-1-07	JUNC-1-06	4.55	5.24	6.81	7.52	High Risk
JUNC-1-08	JUNC-1-07	4.55	5.23	6.81	7.52	High Risk
JUNC-1-09	JUNC-1-08	5.97	6.67	8.21	8.89	High Risk
JUNC-1-10	JUNC-1-09	9.95	10.65	11.30	11.39	High Risk
JUNC-1-10	JUNC-1-09	5.79	6.20	6.58	6.63	High Risk
JUNC-1-10	JUNC-1-09	10.10	10.81	11.47	11.57	High Risk
JUNC-1-10	JUNC-1-09	3.04	4.16	6.13	6.92	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-11-01	JUNC-1-15	0.85	1.11	1.82	2.22	Minimal Risk
JUNC-11-02	JUNC-11-01	2.36	2.85	3.94	4.24	High Risk
JUNC-11-03	JUNC-11-02	2.45	3.04	4.19	4.52	High Risk
JUNC-11-04	JUNC-11-03	2.45	3.05	4.17	4.51	High Risk
JUNC-11-05	JUNC-11-04	1.41	1.78	2.37	2.49	Minimal Risk
JUNC-11-06	JUNC-11-05	6.75	6.75	6.75	6.75	High Risk
JUNC-11-06	JUNC-11-05	1.02	1.57	2.47	2.71	Minimal Risk
JUNC-11-07	JUNC-11-06	1.37	1.39	1.39	1.36	Minimal Risk
JUNC-11-07	JUNC-11-06	0.59	0.77	0.82	0.88	Minimal Risk
JUNC-11-08	JUNC-11-07	1.55	1.55	1.54	1.44	Minimal Risk
JUNC-11-08	JUNC-11-07	0.54	0.69	0.93	1.01	Minimal Risk
JUNC-11-09	JUNC-11-08	1.50	1.49	1.44	1.45	Minimal Risk
JUNC-11-09	JUNC-11-08	0.55	0.71	0.89	0.96	Minimal Risk
JUNC-1-11	JUNC-1-10	3.64	4.14	5.71	6.47	High Risk
JUNC-11-10	JUNC-11-09	1.71	1.71	1.58	1.62	Minimal Risk
JUNC-11-10	JUNC-11-09	0.55	0.67	0.89	0.96	Minimal Risk
JUNC-1-12	JUNC-1-11	4.68	5.38	7.00	7.73	High Risk
JUNC-1-13	JUNC-1-12	4.16	4.79	6.25	6.91	High Risk
JUNC-1-14	JUNC-1-13	5.28	6.07	7.90	8.74	High Risk
JUNC-1-15	JUNC-1-14	5.04	5.79	7.51	8.29	High Risk
JUNC-1-16	JUNC-1-15	5.04	5.79	7.52	8.29	High Risk
JUNC-1-17	JUNC-1-16	8.46	9.45	12.30	13.63	High Risk
JUNC-12-01	JUNC-1-16	4.00	4.51	5.66	6.19	High Risk
JUNC-12-02	JUNC-12-01	13.51	15.14	20.90	22.44	High Risk
JUNC-13-01	JUNC-2-02	1.35	1.91	2.96	3.54	Minimal Risk
JUNC-13-02	JUNC-13-01	2.86	3.72	5.10	5.47	High Risk
JUNC-13-03	JUNC-13-02	4.17	4.17	4.17	4.17	High Risk
JUNC-13-03	JUNC-13-02	1.32	1.96	3.10	3.44	Minimal Risk
JUNC-13-04	JUNC-13-03	4.53	4.53	4.53	4.52	High Risk
JUNC-13-04	JUNC-13-03	1.42	2.24	3.59	3.98	Possible Risk
JUNC-14-01	JUNC-2-02	3.28	3.49	3.92	4.60	High Risk
JUNC-14-02	JUNC-14-01	2.38	2.38	2.38	2.38	High Risk
JUNC-14-02	JUNC-14-01	1.35	1.63	2.12	2.30	Minimal Risk
JUNC-14-03	JUNC-14-02	2.28	2.28	2.28	2.28	High Risk
JUNC-14-03	JUNC-14-02	1.56	1.89	2.44	2.64	Possible Risk
JUNC-14-04	JUNC-14-03	2.64	2.64	2.63	2.63	High Risk
JUNC-14-04	JUNC-14-03	1.82	2.21	2.89	3.13	High Risk
JUNC-14-05	JUNC-14-04	1.47	1.46	1.45	1.45	Minimal Risk
JUNC-14-05	JUNC-14-04	1.04	1.24	1.61	1.74	Minimal Risk
JUNC-14-06	JUNC-14-05	3.77	3.77	3.77	3.77	High Risk
JUNC-14-06	JUNC-14-05	1.06	1.37	1.79	1.93	Minimal Risk
JUNC-15-01	JUNC-2-03	0.62	0.70	0.86	0.92	Minimal Risk

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Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-15-02	JUNC-15-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-15-02	JUNC-15-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-15-03	JUNC-15-02	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-15-03	JUNC-15-02	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-16-01	JUNC-2-04	2.88	2.93	2.93	3.39	High Risk
JUNC-16-02	JUNC-16-01	3.75	3.74	3.71	3.70	High Risk
JUNC-16-02	JUNC-16-01	1.24	1.58	2.12	2.30	Minimal Risk
JUNC-16-03	JUNC-16-02	2.57	2.57	2.55	2.53	High Risk
JUNC-16-03	JUNC-16-02	1.01	1.33	1.72	1.87	Minimal Risk
JUNC-16-04	JUNC-16-03	3.03	3.03	3.03	3.03	High Risk
JUNC-16-04	JUNC-16-03	1.37	1.68	2.14	2.31	Minimal Risk
JUNC-16-05	JUNC-16-04	3.44	3.44	3.44	3.44	High Risk
JUNC-16-05	JUNC-16-04	0.97	1.44	2.09	2.30	Minimal Risk
JUNC-17-01	JUNC-2-05	1.27	1.45	2.88	3.33	Minimal Risk
JUNC-17-02	JUNC-17-01	12.76	12.76	12.76	12.76	High Risk
JUNC-17-02	JUNC-17-01	2.05	3.24	5.20	5.66	High Risk
JUNC-17-03	JUNC-17-02	5.67	5.67	5.67	5.67	High Risk
JUNC-17-03	JUNC-17-02	2.10	2.66	3.80	4.44	High Risk
JUNC-17-04	JUNC-17-03	1.57	1.57	1.57	1.57	Minimal Risk
JUNC-17-04	JUNC-17-03	0.92	1.13	1.58	1.69	Minimal Risk
JUNC-17-05	JUNC-17-04	1.35	1.33	0.79	0.75	Minimal Risk
JUNC-17-05	JUNC-17-04	0.84	0.98	0.94	0.83	Minimal Risk
JUNC-17-06	JUNC-17-05	1.51	1.54	1.45	1.34	Minimal Risk
JUNC-17-06	JUNC-17-05	1.11	1.30	1.53	1.41	Minimal Risk
JUNC-17-07	JUNC-17-06	1.63	1.68	1.75	1.60	Minimal Risk
JUNC-17-07	JUNC-17-06	1.01	1.18	1.42	1.50	Minimal Risk
JUNC-17-08	JUNC-17-07	0.97	1.28	1.69	1.83	Minimal Risk
JUNC-17-08	JUNC-17-07	2.94	2.94	2.93	2.92	High Risk
JUNC-17-09	JUNC-20-04	0.83	0.83	0.83	0.83	Minimal Risk
JUNC-17-09	JUNC-17-08	0.00	0.00	0.00	0.12	Minimal Risk
JUNC-17-09	JUNC-17-08	3.67	4.32	5.11	5.10	High Risk
JUNC-17-10	JUNC-17-09	4.18	4.47	4.87	4.89	High Risk
JUNC-17-10	JUNC-17-09	0.00	0.00	0.47	1.45	Minimal Risk
JUNC-17-11	JUNC-17-10	2.25	2.57	2.79	2.79	High Risk
JUNC-17-11	JUNC-17-10	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-17-12	JUNC-17-11	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-17-12	JUNC-17-11	3.37	3.74	3.93	3.94	High Risk
JUNC-17-13	JUNC-17-12	2.03	2.26	2.48	2.48	High Risk
JUNC-17-13	JUNC-17-12	0.00	0.00	0.13	0.32	Minimal Risk
JUNC-18-01	JUNC-60-01	1.16	1.16	1.16	1.16	Minimal Risk
JUNC-18-01	JUNC-60-01	0.12	0.18	1.46	1.78	Minimal Risk
JUNC-18-01	JUNC-2-06	0.08	0.11	2.89	3.52	Minimal Risk

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Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-18-02	JUNC-18-01	1.24	1.26	1.34	1.35	Minimal Risk
JUNC-18-02	JUNC-18-01	0.56	0.69	0.89	0.94	Minimal Risk
JUNC-19-01	JUNC-2-07	3.20	3.74	4.91	5.34	High Risk
JUNC-19-02	JUNC-19-01	2.43	2.43	2.43	2.43	High Risk
JUNC-19-02	JUNC-19-01	0.28	0.45	0.79	0.91	Minimal Risk
JUNC-19-03	JUNC-19-02	3.98	3.99	3.79	3.69	High Risk
JUNC-19-03	JUNC-19-02	0.58	0.75	0.99	1.01	Minimal Risk
JUNC-19-04	JUNC-19-03	2.31	2.32	2.30	2.31	High Risk
JUNC-19-04	JUNC-19-03	0.52	0.63	0.88	0.96	Minimal Risk
JUNC-20-01	JUNC-2-08	0.89	0.96	1.75	2.38	Minimal Risk
JUNC-20-02	JUNC-57-01	1.67	1.65	1.61	1.60	Minimal Risk
JUNC-20-02	JUNC-20-01	2.63	2.63	2.63	2.63	High Risk
JUNC-20-02	JUNC-20-01	0.98	1.23	1.74	2.00	Minimal Risk
JUNC-20-02	JUNC-57-01	0.88	1.10	1.49	1.57	Minimal Risk
JUNC-20-03	JUNC-20-02	3.50	3.53	3.51	3.45	High Risk
JUNC-20-03	JUNC-20-02	1.81	2.28	2.93	3.08	High Risk
JUNC-20-04	JUNC-20-03	3.95	3.96	3.97	3.97	High Risk
JUNC-20-04	JUNC-20-03	1.88	2.34	3.13	3.41	High Risk
JUNC-20-04	JUNC-57-08	2.04	2.04	2.04	2.04	High Risk
JUNC-20-05	JUNC-20-04	3.94	3.93	3.93	4.01	High Risk
JUNC-20-05	JUNC-20-04	0.84	1.40	2.28	2.54	Minimal Risk
JUNC-20-06	JUNC-20-05	4.45	4.56	4.41	4.37	High Risk
JUNC-20-06	JUNC-20-05	1.19	1.81	2.75	3.04	Minimal Risk
JUNC-20-07	JUNC-20-06	4.04	4.09	4.09	4.08	High Risk
JUNC-20-07	JUNC-20-06	0.72	1.45	2.35	2.61	Minimal Risk
JUNC-20-08	JUNC-20-07	4.69	4.68	4.67	4.66	High Risk
JUNC-20-08	JUNC-20-07	1.56	2.04	2.86	3.09	High Risk
JUNC-20-09	JUNC-20-08	1.49	1.94	2.72	2.96	Minimal Risk
JUNC-20-09	JUNC-20-08	4.25	4.26	4.09	4.04	High Risk
JUNC-2-01	JUNC-1-02	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-2-01	JUNC-1-02	4.80	5.95	9.05	10.50	High Risk
JUNC-20-10	JUNC-20-09	1.55	1.92	2.61	2.82	Possible Risk
JUNC-20-10	JUNC-20-09	3.67	3.66	3.64	3.63	High Risk
JUNC-20-11	JUNC-20-10	1.53	1.94	2.67	2.90	Possible Risk
JUNC-20-11	JUNC-20-10	3.53	3.50	3.42	3.44	High Risk
JUNC-20-12	JUNC-20-11	1.14	1.65	2.43	2.65	Minimal Risk
JUNC-20-12	JUNC-20-11	3.67	3.67	3.67	3.67	High Risk
JUNC-20-13	JUNC-20-12	1.40	1.99	2.90	3.17	Minimal Risk
JUNC-20-13	JUNC-20-12	4.46	4.45	4.45	4.45	High Risk
JUNC-20-14	JUNC-20-13	1.29	1.79	2.57	2.80	Minimal Risk
JUNC-20-14	JUNC-20-13	4.85	4.85	4.85	4.84	High Risk
JUNC-20-15	JUNC-20-14	1.44	1.97	2.84	3.10	Minimal Risk

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Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-20-15	JUNC-20-14	4.97	4.92	4.94	4.91	High Risk
JUNC-20-16	JUNC-20-15	0.78	1.08	1.56	1.69	Minimal Risk
JUNC-20-17	JUNC-20-16	4.03	4.44	4.43	4.43	High Risk
JUNC-20-17	JUNC-20-16	0.00	0.86	1.66	1.86	Minimal Risk
JUNC-20-18	JUNC-20-17	4.59	5.52	5.52	5.52	High Risk
JUNC-20-18	JUNC-20-17	0.00	1.24	2.36	2.63	Minimal Risk
JUNC-20-19	JUNC-20-18	4.08	4.09	4.07	4.06	High Risk
JUNC-20-19	JUNC-20-18	0.46	1.22	1.94	2.13	Minimal Risk
JUNC-2-02	JUNC-2-01	2.13	2.41	3.06	3.30	High Risk
JUNC-2-03	JUNC-2-02	1.66	1.94	2.60	2.90	Possible Risk
JUNC-2-04	JUNC-2-03	1.77	2.04	2.65	2.93	High Risk
JUNC-2-05	JUNC-2-04	1.77	2.04	2.66	2.94	High Risk
JUNC-2-06	JUNC-2-05	1.77	2.04	2.66	2.93	High Risk
JUNC-2-07	JUNC-2-06	1.77	2.04	2.66	2.94	High Risk
JUNC-2-08	JUNC-2-07	1.77	2.04	2.66	2.94	High Risk
JUNC-2-09	JUNC-2-08	1.77	2.04	2.66	2.94	High Risk
JUNC-2-10	JUNC-2-09	1.76	2.03	2.65	2.93	High Risk
JUNC-21-01	JUNC-2-09	5.61	5.88	8.36	10.65	High Risk
JUNC-21-02	JUNC-21-01	5.60	6.36	8.95	10.52	High Risk
JUNC-21-03	JUNC-21-02	6.18	7.90	9.17	9.21	High Risk
JUNC-21-03	JUNC-21-02	0.00	0.00	1.54	2.73	Minimal Risk
STOR-21-04	JUNC-21-03	4.90	6.44	7.70	7.83	High Risk
STOR-21-04	JUNC-21-02	0.00	0.00	4.14	5.36	Minimal Risk
JUNC-21-05	STOR-21-04	2.48	2.87	2.68	2.55	High Risk
JUNC-21-06	JUNC-21-05	3.12	3.81	5.12	6.39	High Risk
JUNC-21-07	JUNC-21-06	3.53	4.22	5.81	6.38	High Risk
JUNC-2-11	JUNC-2-10	1.77	2.04	2.65	2.93	High Risk
JUNC-2-12	JUNC-2-11	2.18	2.50	3.20	3.50	High Risk
JUNC-2-12	JUNC-2-11	5.90	5.89	5.89	5.89	High Risk
JUNC-2-13	JUNC-2-12	0.97	1.30	2.11	2.49	Minimal Risk
JUNC-2-14	JUNC-2-13	1.14	1.47	2.26	2.61	Minimal Risk
JUNC-2-15	JUNC-2-14	1.45	1.76	2.45	2.76	Minimal Risk
JUNC-2-16	JUNC-2-15	2.01	2.32	3.04	3.37	High Risk
JUNC-2-17	JUNC-2-16	2.53	2.91	4.13	4.28	High Risk
JUNC-2-18	JUNC-2-17	0.00	0.00	2.32	2.38	Minimal Risk
JUNC-2-18	JUNC-2-17	6.01	7.30	11.94	14.31	High Risk
JUNC-2-19	JUNC-2-18	2.35	2.52	2.82	3.55	High Risk
JUNC-2-20	JUNC-2-19	2.53	2.92	3.80	4.21	High Risk
JUNC-22-01	JUNC-2-10	0.24	0.31	0.38	0.46	Minimal Risk
JUNC-22-02	JUNC-22-01	3.47	3.47	3.47	3.47	High Risk
JUNC-22-02	JUNC-22-01	0.71	0.92	1.25	1.37	Minimal Risk
JUNC-22-03	JUNC-22-02	3.44	3.44	3.44	3.43	High Risk

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Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-22-03	JUNC-22-02	0.35	0.76	1.12	1.25	Minimal Risk
JUNC-22-04	JUNC-22-03	4.00	4.00	4.00	4.00	High Risk
JUNC-22-04	JUNC-22-03	1.16	1.49	1.98	2.16	Minimal Risk
JUNC-2-21	JUNC-2-20	2.53	2.92	3.80	4.21	High Risk
JUNC-2-22	JUNC-2-21	2.53	2.91	3.80	4.20	High Risk
JUNC-2-23	JUNC-2-22	2.53	2.91	3.80	4.20	High Risk
JUNC-2-24	JUNC-2-23	2.53	2.91	3.80	4.20	High Risk
JUNC-2-25	JUNC-2-24	2.53	2.91	3.80	4.20	High Risk
JUNC-2-26	JUNC-2-25	2.52	2.89	3.78	4.18	High Risk
JUNC-2-27	JUNC-2-26	2.52	2.90	3.79	4.19	High Risk
JUNC-2-28	JUNC-2-27	2.51	2.89	3.78	4.18	High Risk
JUNC-2-29	JUNC-2-28	2.52	2.90	3.78	4.19	High Risk
JUNC-2-30	JUNC-2-29	2.51	2.89	3.77	4.17	High Risk
JUNC-23-01	JUNC-2-12	1.38	2.25	4.43	5.35	Possible Risk
JUNC-23-02	JUNC-23-01	3.83	3.83	3.83	3.82	High Risk
JUNC-23-02	JUNC-23-01	1.28	1.70	2.44	2.70	Minimal Risk
JUNC-23-03	JUNC-23-02	2.94	2.99	3.00	2.95	High Risk
JUNC-23-03	JUNC-57-03	2.56	2.58	2.55	2.54	High Risk
JUNC-23-03	JUNC-23-02	1.37	1.83	2.61	2.86	Minimal Risk
JUNC-23-03	JUNC-57-03	0.92	1.23	1.76	1.95	Minimal Risk
JUNC-23-04	JUNC-23-03	3.02	3.03	3.04	3.10	High Risk
JUNC-23-04	JUNC-23-03	1.06	1.29	1.79	1.97	Minimal Risk
JUNC-23-05	JUNC-23-04	1.57	1.57	1.57	1.57	Minimal Risk
JUNC-23-05	JUNC-23-04	0.82	1.00	1.37	1.52	Minimal Risk
JUNC-23-06	JUNC-23-05	1.57	1.52	1.43	1.40	Minimal Risk
JUNC-23-06	JUNC-23-05	0.72	0.82	0.91	0.99	Minimal Risk
JUNC-23-07	JUNC-23-06	1.48	1.45	1.43	1.43	Minimal Risk
JUNC-23-07	JUNC-23-06	0.82	0.93	1.01	1.09	Minimal Risk
JUNC-23-08	JUNC-23-07	0.89	1.02	1.13	1.21	Minimal Risk
JUNC-23-08	JUNC-23-07	1.46	1.45	1.43	1.43	Minimal Risk
JUNC-23-09	JUNC-23-08	2.83	2.95	2.86	2.74	High Risk
JUNC-23-09	JUNC-23-08	1.19	1.58	1.99	2.02	Minimal Risk
JUNC-2-31	JUNC-2-30	2.49	2.87	3.75	4.15	High Risk
JUNC-23-10	JUNC-23-09	3.06	3.06	3.06	3.05	High Risk
JUNC-23-10	JUNC-23-09	1.44	1.84	2.37	2.48	Minimal Risk
JUNC-23-11	JUNC-23-10	3.44	3.46	3.46	3.48	High Risk
JUNC-23-11	JUNC-23-10	1.55	1.98	2.64	2.85	Possible Risk
JUNC-23-12	JUNC-23-11	3.05	3.07	3.05	3.04	High Risk
JUNC-23-12	JUNC-23-11	0.24	0.79	1.17	1.32	Minimal Risk
JUNC-23-13	JUNC-23-12	0.59	1.18	1.70	1.88	Minimal Risk
JUNC-23-13	JUNC-23-12	3.32	3.36	3.30	3.27	High Risk
JUNC-23-14	JUNC-23-13	0.93	1.24	1.56	1.68	Minimal Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-23-14	JUNC-23-13	4.14	4.04	4.12	4.11	High Risk
JUNC-23-15	JUNC-23-14	3.10	3.10	3.09	3.09	High Risk
JUNC-23-15	JUNC-23-14	0.97	1.27	1.64	1.78	Minimal Risk
JUNC-23-16	JUNC-23-15	1.49	2.13	2.44	2.44	Possible Risk
JUNC-23-16	JUNC-23-15	0.00	0.00	0.16	0.33	Minimal Risk
JUNC-23-17	JUNC-23-16	2.36	2.32	2.68	2.68	High Risk
JUNC-23-17	JUNC-23-16	0.00	0.00	0.27	0.61	Minimal Risk
JUNC-23-18	JUNC-23-17	2.76	2.81	2.82	2.85	High Risk
JUNC-23-18	JUNC-23-17	0.00	0.00	0.39	0.68	Minimal Risk
JUNC-23-19	JUNC-23-18	2.79	3.00	3.02	3.02	High Risk
JUNC-23-19	JUNC-23-18	0.00	0.00	0.37	0.67	Minimal Risk
JUNC-2-32	JUNC-2-31	2.78	3.19	4.15	4.59	High Risk
JUNC-23-20	JUNC-23-19	0.00	0.00	0.43	0.70	Minimal Risk
JUNC-23-20	JUNC-23-19	2.79	3.02	3.09	3.09	High Risk
JUNC-2-33	JUNC-2-32	1.05	1.25	1.71	1.92	Minimal Risk
JUNC-2-34	JUNC-2-33	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-24-01	JUNC-2-13	0.72	0.77	0.88	0.93	Minimal Risk
JUNC-24-02	JUNC-24-01	2.85	3.28	3.30	3.30	High Risk
JUNC-24-02	JUNC-24-01	0.00	0.12	0.43	0.51	Minimal Risk
JUNC-25-01	JUNC-2-14	0.42	0.49	0.66	0.72	Minimal Risk
JUNC-25-02	JUNC-25-01	1.50	1.77	2.12	2.24	Minimal Risk
JUNC-26-01	JUNC-2-15	3.24	3.88	5.04	5.32	High Risk
JUNC-26-02	JUNC-26-01	4.15	4.94	6.58	7.19	High Risk
JUNC-26-03	JUNC-26-02	4.32	5.17	6.92	7.54	High Risk
JUNC-26-04	JUNC-26-03	3.39	4.05	5.39	5.88	High Risk
JUNC-26-05	JUNC-26-04	3.40	4.09	5.51	6.02	High Risk
JUNC-26-06	JUNC-26-05	2.06	2.61	4.00	4.34	High Risk
JUNC-26-07	JUNC-26-06	1.96	2.45	3.38	3.61	High Risk
JUNC-27-01	JUNC-2-19	1.45	1.78	2.33	2.34	Minimal Risk
JUNC-27-02	JUNC-27-01	2.58	2.52	2.53	2.53	High Risk
JUNC-27-02	JUNC-27-01	1.28	1.60	2.22	2.43	Minimal Risk
JUNC-27-03	JUNC-27-02	3.57	3.57	3.57	3.56	High Risk
JUNC-27-03	JUNC-27-02	1.38	1.70	2.20	2.65	Minimal Risk
JUNC-27-04	JUNC-27-03	3.39	3.39	3.39	3.40	High Risk
JUNC-27-04	JUNC-27-03	1.72	2.19	3.05	3.34	High Risk
JUNC-27-05	JUNC-27-04	3.77	3.78	3.79	3.79	High Risk
JUNC-27-05	JUNC-27-04	1.78	2.23	3.10	3.40	High Risk
JUNC-27-06	JUNC-27-05	3.45	3.44	3.42	3.40	High Risk
JUNC-27-06	JUNC-27-05	0.47	0.59	0.93	0.93	Minimal Risk
JUNC-27-07	JUNC-27-06	2.49	2.50	2.50	2.51	High Risk
JUNC-27-07	JUNC-70-01	1.47	1.81	2.50	2.73	Minimal Risk
JUNC-27-08	JUNC-27-07	1.62	2.02	2.79	3.04	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-27-08	JUNC-27-07	6.38	6.44	5.84	5.24	High Risk
JUNC-27-09	JUNC-27-08	1.63	2.05	2.85	3.12	High Risk
JUNC-27-09	JUNC-27-08	4.99	4.96	4.74	4.52	High Risk
JUNC-27-10	JUNC-27-09	1.65	2.10	2.93	3.21	High Risk
JUNC-27-10	JUNC-27-09	4.95	4.91	4.72	4.53	High Risk
JUNC-27-11	JUNC-27-10	2.78	3.46	3.46	3.46	High Risk
JUNC-27-11	JUNC-27-10	0.00	0.33	1.02	1.19	Minimal Risk
JUNC-27-12	JUNC-27-11	3.02	2.98	2.95	2.94	High Risk
JUNC-27-12	JUNC-27-11	0.00	0.89	1.53	1.70	Minimal Risk
JUNC-27-13	JUNC-27-12	3.26	3.90	4.06	3.97	High Risk
JUNC-27-13	JUNC-27-12	0.00	0.72	1.50	1.69	Minimal Risk
JUNC-27-14	JUNC-27-13	3.64	3.66	3.66	3.63	High Risk
JUNC-27-14	JUNC-27-13	0.00	0.88	1.66	1.86	Minimal Risk
JUNC-27-15	JUNC-27-14	0.34	0.93	1.46	1.62	Minimal Risk
JUNC-27-15	JUNC-27-14	3.12	3.12	3.12	3.12	High Risk
JUNC-27-16	JUNC-27-15	0.00	0.57	1.45	1.68	Minimal Risk
JUNC-27-16	JUNC-27-15	3.70	4.48	4.48	4.47	High Risk
JUNC-27-17	JUNC-27-16	0.00	0.84	1.82	2.07	Minimal Risk
JUNC-27-17	JUNC-27-16	4.83	4.89	4.83	4.83	High Risk
JUNC-28-01	JUNC-2-20	1.32	1.30	1.43	1.36	Minimal Risk
JUNC-28-02	JUNC-28-01	4.90	4.90	4.90	4.89	High Risk
JUNC-28-02	JUNC-28-01	0.93	1.15	1.65	1.82	Minimal Risk
JUNC-28-03	JUNC-28-02	0.00	0.44	1.13	1.30	Minimal Risk
JUNC-28-03	JUNC-28-02	3.60	3.78	3.78	3.78	High Risk
JUNC-28-04	JUNC-28-03	5.18	5.23	5.21	5.19	High Risk
JUNC-28-04	JUNC-28-03	0.00	1.26	1.93	2.14	Minimal Risk
JUNC-28-05	JUNC-28-04	0.96	1.19	1.53	1.67	Minimal Risk
JUNC-28-05	JUNC-28-04	2.82	2.81	2.81	2.80	High Risk
JUNC-28-06	JUNC-28-05	0.92	1.07	1.33	1.44	Minimal Risk
JUNC-28-06	JUNC-28-05	2.28	2.28	2.28	2.28	High Risk
JUNC-28-07	JUNC-28-06	0.66	0.78	0.99	1.07	Minimal Risk
JUNC-28-07	JUNC-28-06	1.40	1.40	1.39	1.38	Minimal Risk
JUNC-28-08	JUNC-28-07	0.53	0.83	1.22	1.36	Minimal Risk
JUNC-28-08	JUNC-28-07	2.57	2.57	2.56	2.56	High Risk
JUNC-28-08	JUNC-28-07	2.57	2.57	2.56	2.56	High Risk
JUNC-29-01	JUNC-2-21	2.23	2.26	3.80	3.88	High Risk
JUNC-29-02	JUNC-29-01	0.00	1.65	3.76	4.20	Minimal Risk
JUNC-29-02	JUNC-29-01	7.35	8.02	7.66	7.55	High Risk
JUNC-29-03	JUNC-29-02	6.46	7.15	7.18	7.17	High Risk
JUNC-29-03	JUNC-75-01	0.00	2.76	6.28	7.06	Possible Risk
JUNC-29-04	JUNC-29-03	8.33	8.54	8.47	8.45	High Risk
JUNC-29-04	JUNC-29-03	0.00	2.05	5.10	5.76	Possible Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-29-05	JUNC-29-04	0.00	2.12	5.03	5.68	Possible Risk
JUNC-29-05	JUNC-29-04	8.74	8.95	8.97	8.94	High Risk
JUNC-29-06	JUNC-29-05	7.28	7.79	7.82	7.71	High Risk
JUNC-29-06	JUNC-29-05	0.00	1.86	3.91	4.39	Minimal Risk
JUNC-29-07	JUNC-29-06	5.75	5.86	5.87	5.86	High Risk
JUNC-29-07	JUNC-29-06	0.00	1.21	4.17	4.70	Minimal Risk
JUNC-29-08	JUNC-29-07	7.28	7.62	7.68	7.63	High Risk
JUNC-29-08	JUNC-29-07	0.00	0.00	3.35	3.69	Minimal Risk
JUNC-29-09	JUNC-29-08	7.12	7.95	8.76	8.51	High Risk
JUNC-29-09	JUNC-29-08	0.00	0.00	3.76	4.27	Minimal Risk
JUNC-29-10	JUNC-29-09	4.78	6.11	6.12	6.12	High Risk
JUNC-29-10	JUNC-29-09	0.00	1.19	3.04	3.37	Minimal Risk
JUNC-29-11	JUNC-29-10	3.07	3.78	3.71	3.67	High Risk
JUNC-29-11	JUNC-29-10	0.00	0.69	2.04	2.42	Minimal Risk
JUNC-29-12	JUNC-29-11	0.00	0.38	2.13	2.41	Minimal Risk
JUNC-29-12	JUNC-29-11	4.26	4.84	5.06	4.96	High Risk
JUNC-29-13	JUNC-29-12	0.00	0.00	1.19	1.66	Minimal Risk
JUNC-29-13	JUNC-29-12	4.52	4.40	5.94	5.94	High Risk
JUNC-29-14	JUNC-29-13	4.84	5.49	6.53	7.37	High Risk
JUNC-29-14	JUNC-29-13	0.00	0.00	0.00	0.58	Minimal Risk
JUNC-29-15	JUNC-29-14	5.28	6.20	6.54	7.07	High Risk
JUNC-29-15	JUNC-29-14	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-30-01	JUNC-2-22	0.93	1.00	0.95	0.88	Minimal Risk
JUNC-30-02	JUNC-30-01	0.08	0.10	0.13	0.15	Minimal Risk
JUNC-30-03	JUNC-30-02	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-30-03	JUNC-30-02	3.59	3.70	3.93	4.57	High Risk
JUNC-3-01	JUNC-1-03	3.96	4.93	7.38	8.34	High Risk
JUNC-3-02	JUNC-3-01	3.33	3.58	3.58	3.58	High Risk
JUNC-3-02	JUNC-3-01	0.00	0.50	1.02	1.18	Minimal Risk
JUNC-3-03	JUNC-3-02	1.65	1.77	1.80	1.80	Minimal Risk
JUNC-3-03	JUNC-3-02	0.00	0.54	0.95	1.11	Minimal Risk
JUNC-3-04	JUNC-3-03	1.21	1.21	1.20	1.20	Minimal Risk
JUNC-3-04	JUNC-3-03	0.23	0.43	0.73	0.83	Minimal Risk
JUNC-3-05	JUNC-3-04	0.31	0.49	0.76	0.87	Minimal Risk
JUNC-3-05	JUNC-3-04	1.19	1.20	1.19	1.18	Minimal Risk
JUNC-3-06	JUNC-3-05	0.04	0.04	0.03	0.02	Minimal Risk
JUNC-3-06	JUNC-3-05	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-31-01	JUNC-2-23	1.38	1.61	1.91	1.90	Minimal Risk
JUNC-31-02	JUNC-31-01	1.22	1.57	2.57	3.05	Minimal Risk
JUNC-31-03	JUNC-31-02	3.32	3.89	4.93	5.24	High Risk
JUNC-31-04	JUNC-31-03	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-31-04	JUNC-31-03	3.65	4.03	4.51	5.03	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-32-01	JUNC-2-24	1.40	1.78	2.56	2.46	Minimal Risk
JUNC-32-02	JUNC-32-01	1.34	2.14	4.49	4.91	Possible Risk
JUNC-32-03	JUNC-32-02	5.20	6.13	7.83	8.23	High Risk
JUNC-32-04	JUNC-32-03	0.57	0.56	0.48	0.49	Minimal Risk
JUNC-32-05	JUNC-32-04	0.00	0.00	0.98	1.44	Minimal Risk
JUNC-32-05	JUNC-32-04	7.06	7.72	8.25	8.29	High Risk
JUNC-32-06	JUNC-32-05	0.78	1.08	1.55	1.69	Minimal Risk
JUNC-32-06	JUNC-32-05	5.11	5.11	5.11	5.11	High Risk
JUNC-32-07	JUNC-32-06	1.16	1.40	1.69	1.85	Minimal Risk
JUNC-32-07	JUNC-32-06	3.72	3.72	3.71	3.71	High Risk
JUNC-33-01	JUNC-2-24	0.42	0.46	0.39	0.42	Minimal Risk
JUNC-33-02	JUNC-33-01	0.80	1.01	1.02	1.20	Minimal Risk
JUNC-33-03	JUNC-33-02	3.81	4.28	4.96	5.21	High Risk
JUNC-33-04	JUNC-33-03	1.86	2.32	3.00	3.25	High Risk
JUNC-33-04	JUNC-33-03	5.30	5.29	5.28	5.27	High Risk
JUNC-33-05	JUNC-33-04	0.62	0.68	1.08	1.26	Minimal Risk
JUNC-33-06	JUNC-33-05	6.64	6.65	6.64	6.63	High Risk
JUNC-33-06	JUNC-33-05	1.17	1.56	2.09	2.29	Minimal Risk
JUNC-33-07	JUNC-33-06	1.35	1.69	2.19	2.38	Minimal Risk
JUNC-33-07	JUNC-33-06	4.23	4.19	4.19	4.18	High Risk
JUNC-33-08	JUNC-33-07	0.44	0.67	0.97	1.09	Minimal Risk
JUNC-33-08	JUNC-33-07	3.38	3.38	3.37	3.37	High Risk
JUNC-34-01	JUNC-2-27	1.38	1.87	2.57	2.77	Minimal Risk
JUNC-34-02	JUNC-34-01	0.73	1.25	2.20	3.10	Minimal Risk
JUNC-34-02	JUNC-34-01	7.47	7.55	7.56	7.51	High Risk
JUNC-34-03	JUNC-34-02	1.31	1.59	3.20	4.07	Minimal Risk
JUNC-34-04	JUNC-34-03	3.57	4.28	5.87	6.49	High Risk
JUNC-34-05	JUNC-34-04	3.84	4.64	6.36	7.04	High Risk
JUNC-34-06	JUNC-34-05	4.32	5.19	7.11	7.89	High Risk
JUNC-34-07	JUNC-34-06	3.61	4.36	5.98	6.62	High Risk
JUNC-34-08	JUNC-34-07	0.69	0.75	0.62	0.61	Minimal Risk
JUNC-34-09	JUNC-34-08	0.00	0.00	0.52	0.64	Minimal Risk
JUNC-34-09	JUNC-34-08	2.16	3.16	3.57	3.57	High Risk
JUNC-34-09	JUNC-34-08	2.16	3.16	3.57	3.57	High Risk
JUNC-35-01	JUNC-2-29	0.71	0.77	0.79	0.82	Minimal Risk
JUNC-35-02	JUNC-35-01	1.45	1.64	1.96	2.12	Minimal Risk
JUNC-35-03	JUNC-35-02	1.30	1.41	1.67	1.81	Minimal Risk
JUNC-35-04	JUNC-35-03	1.71	1.93	2.39	2.58	Possible Risk
JUNC-35-05	JUNC-35-04	2.33	2.62	3.22	3.39	High Risk
JUNC-35-06	JUNC-35-05	1.56	1.85	2.41	2.63	Possible Risk
JUNC-35-06	JUNC-35-05	1.17	1.42	1.94	2.15	Minimal Risk
JUNC-35-07	JUNC-35-06	8.18	9.08	9.89	9.89	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-35-07	JUNC-35-06	0.00	0.00	1.38	1.84	Minimal Risk
JUNC-35-08	JUNC-35-07	5.02	5.44	5.82	5.87	High Risk
JUNC-35-08	JUNC-35-07	0.00	0.00	1.73	2.09	Minimal Risk
JUNC-35-09	JUNC-35-08	4.58	4.85	4.82	4.84	High Risk
JUNC-35-09	JUNC-35-08	0.00	0.60	1.70	1.97	Minimal Risk
JUNC-35-10	JUNC-35-09	4.54	4.97	5.01	5.02	High Risk
JUNC-35-10	JUNC-35-09	0.00	0.00	1.80	1.95	Minimal Risk
JUNC-35-11	JUNC-35-10	3.08	3.33	4.38	4.91	High Risk
JUNC-35-12	JUNC-35-11	2.82	3.48	4.40	4.91	High Risk
JUNC-35-12	JUNC-35-11	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-35-13	JUNC-35-12	1.38	1.49	2.20	2.54	Minimal Risk
JUNC-35-13	JUNC-35-12	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-36-01	JUNC-2-29	0.35	0.42	1.14	1.41	Minimal Risk
JUNC-36-02	JUNC-36-01	0.91	1.09	2.16	2.56	Minimal Risk
JUNC-36-03	JUNC-36-02	0.00	0.00	1.63	1.98	Minimal Risk
JUNC-36-03	JUNC-36-02	3.58	4.47	4.98	5.00	High Risk
JUNC-36-04	JUNC-36-03	0.32	0.56	1.25	1.58	Minimal Risk
JUNC-36-05	JUNC-36-04	6.68	8.50	8.59	8.56	High Risk
JUNC-36-05	JUNC-36-04	0.00	1.93	3.77	4.33	Minimal Risk
JUNC-36-06	JUNC-36-05	4.25	4.49	4.50	4.50	High Risk
JUNC-36-06	JUNC-36-05	0.00	2.20	4.01	4.57	Possible Risk
JUNC-36-07	JUNC-36-06	4.25	4.29	4.33	4.32	High Risk
JUNC-36-07	JUNC-36-06	0.00	2.02	3.76	4.30	Possible Risk
JUNC-36-08	JUNC-36-07	0.87	1.14	1.18	1.45	Minimal Risk
JUNC-37-01	JUNC-2-30	2.72	3.23	4.44	5.22	High Risk
JUNC-37-02	JUNC-37-01	2.44	3.06	5.46	6.64	High Risk
JUNC-37-02	JUNC-37-01	0.00	0.00	0.00	2.45	Minimal Risk
JUNC-37-03	JUNC-37-02	2.02	2.10	2.42	2.40	High Risk
JUNC-37-04	JUNC-37-03	0.00	0.00	1.92	3.71	Minimal Risk
JUNC-37-04	JUNC-37-03	4.44	6.39	10.61	11.14	High Risk
JUNC-37-05	JUNC-37-04	3.47	3.73	5.37	6.89	High Risk
JUNC-38-01	JUNC-2-30	0.00	0.00	0.11	0.12	Minimal Risk
JUNC-39-01	JUNC-2-32	8.59	9.66	12.20	13.36	High Risk
JUNC-40-01	JUNC-2-33	3.24	3.62	4.54	4.98	High Risk
JUNC-4-01	JUNC-1-04	0.60	0.85	1.73	2.08	Minimal Risk
JUNC-4-02	JUNC-4-01	2.07	2.70	3.78	4.06	High Risk
JUNC-4-03	JUNC-4-02	4.17	5.56	7.00	7.41	High Risk
JUNC-41-01	JUNC-3-05	0.29	0.37	0.57	0.64	Minimal Risk
JUNC-41-01	JUNC-3-05	0.87	0.86	0.87	0.87	Minimal Risk
JUNC-41-02	JUNC-41-01	0.26	0.34	0.54	0.62	Minimal Risk
JUNC-41-02	JUNC-58-01	1.09	1.16	1.31	1.29	Minimal Risk
JUNC-41-02	JUNC-41-01	0.99	0.96	0.90	0.89	Minimal Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-41-03	JUNC-41-02	1.75	1.70	1.58	1.54	Minimal Risk
JUNC-41-03	JUNC-41-02	0.58	0.69	0.88	0.94	Minimal Risk
JUNC-41-04	JUNC-41-03	1.74	1.74	1.73	1.73	Minimal Risk
JUNC-41-04	JUNC-41-03	0.30	0.53	0.90	1.02	Minimal Risk
JUNC-41-05	JUNC-41-04	0.00	0.00	1.08	1.39	Minimal Risk
JUNC-41-05	JUNC-41-04	2.95	3.68	4.13	4.11	High Risk
STOR-41-06	JUNC-41-05	2.19	2.46	4.46	5.32	High Risk
JUNC-42-01	JUNC-41-05	0.00	0.84	1.28	1.28	Minimal Risk
JUNC-42-01	JUNC-41-05	3.40	3.40	3.37	3.31	High Risk
JUNC-42-02	JUNC-42-01	0.00	0.89	1.33	1.47	Minimal Risk
JUNC-42-02	JUNC-42-01	3.95	4.05	3.93	3.92	High Risk
JUNC-42-03	JUNC-42-02	0.94	1.17	1.49	1.62	Minimal Risk
JUNC-42-03	JUNC-42-02	3.16	3.16	3.14	3.14	High Risk
JUNC-42-04	JUNC-42-03	0.98	1.20	1.52	1.65	Minimal Risk
JUNC-42-04	JUNC-42-03	3.08	3.11	3.05	2.94	High Risk
JUNC-43-01	JUNC-5-07	1.41	1.88	2.76	3.28	Minimal Risk
JUNC-43-02	JUNC-43-01	4.14	5.45	7.13	7.59	High Risk
JUNC-44-01	JUNC-6-01	1.07	1.06	1.12	1.16	Minimal Risk
JUNC-44-02	JUNC-44-01	3.93	5.79	5.82	5.81	High Risk
JUNC-44-02	JUNC-44-01	0.00	0.18	0.81	0.93	Minimal Risk
JUNC-44-03	JUNC-44-02	2.40	2.41	2.41	2.41	High Risk
JUNC-44-03	JUNC-44-02	0.26	0.59	0.89	0.98	Minimal Risk
JUNC-45-01	JUNC-7-02	3.74	4.19	4.52	4.69	High Risk
JUNC-45-01	JUNC-7-02	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-45-02	JUNC-45-01	4.14	4.46	4.47	4.47	High Risk
JUNC-45-02	JUNC-45-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-45-03	JUNC-45-02	0.13	0.15	0.23	0.28	Minimal Risk
JUNC-45-04	JUNC-45-03	3.17	4.47	5.15	5.16	High Risk
JUNC-45-04	JUNC-45-03	0.00	0.00	0.31	0.39	Minimal Risk
JUNC-46-01	JUNC-8-06	0.77	0.92	1.13	1.01	Minimal Risk
JUNC-47-01	JUNC-8-05	0.95	1.12	1.10	1.01	Minimal Risk
JUNC-47-02	JUNC-47-01	2.70	2.71	2.70	2.70	High Risk
JUNC-47-02	JUNC-47-01	0.39	0.51	0.74	0.82	Minimal Risk
JUNC-47-03	JUNC-47-02	1.42	1.37	1.32	1.32	Minimal Risk
JUNC-47-03	JUNC-47-02	0.40	0.50	0.63	0.69	Minimal Risk
JUNC-47-04	JUNC-47-03	1.06	1.03	0.97	0.97	Minimal Risk
JUNC-47-04	JUNC-47-03	0.30	0.32	0.43	0.47	Minimal Risk
JUNC-48-01	JUNC-8-10	0.23	0.35	0.56	0.65	Minimal Risk
JUNC-48-02	JUNC-48-01	0.77	1.17	1.60	1.76	Minimal Risk
JUNC-48-02	JUNC-48-01	6.33	6.36	6.28	6.25	High Risk
JUNC-48-03	JUNC-48-02	0.00	0.00	0.61	0.88	Minimal Risk
JUNC-48-03	JUNC-48-02	2.45	3.39	4.24	4.24	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-49-01	JUNC-9-04	0.43	0.96	1.52	1.66	Minimal Risk
JUNC-49-01	JUNC-9-04	3.17	3.24	3.20	3.19	High Risk
JUNC-49-02	JUNC-49-01	0.77	1.29	1.88	2.05	Minimal Risk
JUNC-49-02	JUNC-49-01	3.00	3.00	2.98	2.98	High Risk
JUNC-50-01	JUNC-11-01	1.03	1.13	0.98	0.93	Minimal Risk
JUNC-50-02	JUNC-50-01	5.90	6.50	6.56	6.57	High Risk
JUNC-50-02	JUNC-50-01	0.00	0.00	1.18	1.38	Minimal Risk
JUNC-5-01	JUNC-1-05	1.15	1.61	2.40	2.78	Minimal Risk
JUNC-5-02	JUNC-5-01	2.96	3.62	5.00	5.43	High Risk
JUNC-5-03	JUNC-5-02	12.11	12.13	12.10	12.08	High Risk
JUNC-5-03	JUNC-5-02	2.05	3.13	5.07	5.69	High Risk
JUNC-5-04	JUNC-5-03	2.28	3.27	5.12	5.73	High Risk
JUNC-5-04	JUNC-5-03	7.12	7.13	7.11	7.08	High Risk
JUNC-5-05	JUNC-5-04	2.02	2.85	4.43	4.95	High Risk
JUNC-5-05	JUNC-5-04	6.16	6.17	6.16	6.15	High Risk
JUNC-5-06	JUNC-5-05	1.04	1.64	3.81	4.69	Minimal Risk
JUNC-5-07	JUNC-5-06	5.72	7.15	9.76	10.58	High Risk
JUNC-5-08	JUNC-5-07	3.62	4.53	6.27	6.86	High Risk
JUNC-5-09	JUNC-5-08	6.14	7.65	10.23	11.03	High Risk
JUNC-51-01	JUNC-11-01	2.64	3.70	4.47	4.53	High Risk
JUNC-51-02	JUNC-51-01	6.31	6.30	6.31	6.33	High Risk
JUNC-51-02	JUNC-51-01	0.64	1.58	2.62	2.89	Minimal Risk
JUNC-52-01	JUNC-11-02	1.82	2.13	1.89	1.75	Possible Risk
JUNC-52-02	JUNC-52-01	5.32	5.32	5.32	5.32	High Risk
JUNC-52-02	JUNC-52-01	0.59	1.05	1.48	1.62	Minimal Risk
JUNC-53-01	JUNC-11-03	1.35	1.39	1.11	1.05	Minimal Risk
JUNC-53-02	JUNC-53-01	4.91	5.84	6.18	6.18	High Risk
JUNC-53-02	JUNC-53-01	0.00	0.00	0.75	0.88	Minimal Risk
JUNC-54-01	JUNC-11-04	5.61	7.08	8.56	9.35	High Risk
JUNC-54-02	JUNC-54-01	4.43	4.34	4.22	4.10	High Risk
JUNC-54-02	JUNC-54-01	0.15	0.37	0.62	0.70	Minimal Risk
JUNC-55-01	JUNC-11-06	2.01	2.01	2.00	2.00	Possible Risk
JUNC-55-01	JUNC-11-06	0.71	1.09	1.70	1.85	Minimal Risk
JUNC-55-02	JUNC-55-01	1.47	1.46	1.45	1.45	Minimal Risk
JUNC-55-02	JUNC-55-01	0.46	0.80	1.25	1.36	Minimal Risk
JUNC-55-03	JUNC-55-02	4.41	4.65	4.66	4.65	High Risk
JUNC-55-03	JUNC-55-02	0.00	0.94	1.57	1.75	Minimal Risk
JUNC-55-04	JUNC-55-03	1.49	1.78	1.59	1.90	Minimal Risk
JUNC-56-01	JUNC-17-10	0.00	0.00	0.88	1.09	Minimal Risk
JUNC-56-01	JUNC-17-10	2.95	3.23	4.37	4.36	High Risk
JUNC-56-02	JUNC-56-01	0.00	0.38	1.05	1.20	Minimal Risk
JUNC-56-02	JUNC-56-01	2.34	2.79	2.80	2.80	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-56-03	JUNC-56-02	0.00	0.00	0.49	0.83	Minimal Risk
JUNC-56-03	JUNC-56-02	2.88	3.14	4.44	4.44	High Risk
JUNC-56-04	JUNC-56-03	0.00	0.00	1.20	1.42	Minimal Risk
JUNC-56-04	JUNC-56-03	3.66	3.66	3.65	3.66	High Risk
JUNC-56-05	JUNC-56-04	3.51	3.69	3.91	3.91	High Risk
JUNC-56-05	JUNC-56-04	0.00	0.00	1.04	1.29	Minimal Risk
JUNC-56-06	JUNC-56-05	0.00	0.97	1.69	1.86	Minimal Risk
JUNC-56-06	JUNC-56-05	5.42	5.42	5.42	5.42	High Risk
JUNC-57-01	JUNC-17-04	0.57	0.87	1.55	1.63	Minimal Risk
JUNC-57-01	JUNC-17-04	1.79	1.78	1.79	1.79	Minimal Risk
JUNC-57-02	JUNC-20-02	2.40	2.40	2.40	2.40	High Risk
JUNC-57-02	JUNC-20-02	0.68	1.04	1.68	2.04	Minimal Risk
JUNC-57-03	JUNC-57-02	2.52	2.54	2.50	2.50	High Risk
JUNC-57-03	JUNC-57-02	0.98	1.34	1.94	2.14	Minimal Risk
JUNC-57-04	JUNC-23-03	1.25	2.04	2.97	3.23	Possible Risk
JUNC-57-04	JUNC-23-03	3.10	2.93	2.52	2.44	High Risk
JUNC-57-05	JUNC-57-04	3.23	3.27	3.29	3.29	High Risk
JUNC-57-05	JUNC-57-04	1.07	1.93	2.91	3.20	Minimal Risk
JUNC-57-06	JUNC-57-05	3.66	3.75	3.77	3.77	High Risk
JUNC-57-06	JUNC-57-05	1.07	1.95	2.96	3.26	Minimal Risk
JUNC-57-07	JUNC-57-06	1.14	1.87	2.77	3.05	Minimal Risk
JUNC-57-07	JUNC-63-02	0.29	0.61	1.06	1.20	Minimal Risk
JUNC-57-07	JUNC-57-06	3.47	3.43	3.29	3.30	High Risk
JUNC-57-08	JUNC-57-07	1.29	2.17	3.26	3.60	Possible Risk
JUNC-57-08	JUNC-23-11	1.15	1.17	1.20	1.20	Minimal Risk
JUNC-57-08	JUNC-57-07	3.97	3.95	3.83	3.84	High Risk
JUNC-58-01	JUNC-41-02	0.35	0.47	0.78	0.89	Minimal Risk
JUNC-58-01	JUNC-17-04	0.20	0.30	0.52	0.64	Minimal Risk
JUNC-58-01	JUNC-17-04	0.86	0.87	0.88	0.88	Minimal Risk
JUNC-59-01	JUNC-57-08	1.90	2.72	3.26	3.53	High Risk
JUNC-59-01	JUNC-57-08	4.54	4.58	4.60	4.60	High Risk
JUNC-59-02	JUNC-59-01	1.74	2.34	3.07	3.34	High Risk
JUNC-59-02	JUNC-59-01	5.23	5.23	5.22	5.21	High Risk
JUNC-59-03	JUNC-59-02	1.65	2.20	2.90	3.15	High Risk
JUNC-59-03	JUNC-59-02	4.64	4.64	4.64	4.64	High Risk
JUNC-59-04	JUNC-59-03	4.42	4.42	4.39	4.39	High Risk
JUNC-59-04	JUNC-59-03	1.53	2.03	2.67	2.89	High Risk
JUNC-59-05	JUNC-59-04	3.61	3.60	3.59	3.59	High Risk
JUNC-59-05	JUNC-59-04	1.62	2.14	2.85	3.10	High Risk
JUNC-59-06	JUNC-59-05	3.31	3.30	3.31	3.30	High Risk
JUNC-59-06	JUNC-59-05	1.83	2.36	3.09	3.34	High Risk
JUNC-59-07	JUNC-59-06	3.01	3.01	3.00	2.99	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-59-07	JUNC-59-06	1.73	2.23	2.91	3.15	High Risk
JUNC-59-08	JUNC-59-07	2.93	2.92	2.92	2.92	High Risk
JUNC-59-08	JUNC-59-07	1.73	2.21	2.90	3.14	High Risk
JUNC-59-09	JUNC-59-08	2.45	2.46	2.47	2.48	High Risk
JUNC-59-09	JUNC-59-08	1.62	2.10	2.74	2.97	High Risk
JUNC-59-10	JUNC-59-09	2.60	2.60	2.60	2.60	High Risk
JUNC-59-10	JUNC-59-09	1.70	2.18	2.87	3.11	High Risk
JUNC-59-11	JUNC-59-10	1.50	1.92	2.53	2.74	Minimal Risk
JUNC-59-11	JUNC-59-10	2.58	2.58	2.53	2.52	High Risk
JUNC-59-12	JUNC-59-11	1.64	2.11	2.70	2.92	High Risk
JUNC-59-12	JUNC-59-11	2.52	2.52	2.52	2.51	High Risk
JUNC-59-13	JUNC-59-12	1.28	1.71	2.28	2.47	Minimal Risk
JUNC-59-13	JUNC-59-12	2.27	2.27	2.27	2.27	High Risk
JUNC-59-14	JUNC-59-13	1.41	1.83	2.45	2.65	Minimal Risk
JUNC-59-14	JUNC-59-13	2.38	2.38	2.39	2.40	High Risk
JUNC-59-15	JUNC-59-14	3.87	3.88	3.88	3.88	High Risk
JUNC-59-15	JUNC-59-14	1.71	2.28	2.83	3.07	High Risk
JUNC-59-16	JUNC-59-15	1.86	2.49	3.39	3.69	High Risk
JUNC-59-16	JUNC-59-15	4.45	4.44	4.43	4.43	High Risk
JUNC-59-17	JUNC-59-16	0.83	1.24	2.24	2.62	Minimal Risk
JUNC-59-18	JUNC-59-17	1.23	1.38	1.54	1.64	Minimal Risk
JUNC-59-19	JUNC-59-18	1.42	1.81	2.39	2.62	Minimal Risk
JUNC-59-19	JUNC-59-18	10.02	10.01	10.00	9.99	High Risk
JUNC-60-01	STOR-21-04	0.26	0.26	1.24	1.49	Minimal Risk
JUNC-6-01	JUNC-1-06	0.54	0.73	1.24	1.47	Minimal Risk
JUNC-6-02	JUNC-6-01	1.51	2.09	2.53	2.64	High Risk
JUNC-6-03	JUNC-6-02	7.36	7.35	7.29	7.27	High Risk
JUNC-6-03	JUNC-6-02	1.63	2.76	4.18	4.58	High Risk
JUNC-6-04	JUNC-6-03	5.17	5.52	5.07	4.97	High Risk
JUNC-6-04	JUNC-6-03	1.35	2.28	3.44	3.76	Possible Risk
JUNC-6-05	JUNC-6-04	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-61-01	JUNC-21-03	0.00	1.01	1.88	2.15	Minimal Risk
JUNC-61-01	JUNC-21-03	6.71	8.17	7.43	6.61	High Risk
JUNC-62-01	JUNC-21-06	2.60	3.32	4.61	4.97	High Risk
JUNC-62-02	JUNC-62-01	4.53	4.53	4.53	4.53	High Risk
JUNC-62-02	JUNC-62-01	2.38	3.26	5.09	5.69	High Risk
JUNC-62-03	JUNC-62-02	2.88	2.87	2.87	2.86	High Risk
JUNC-62-03	JUNC-62-02	2.08	2.81	4.35	4.86	High Risk
JUNC-62-04	JUNC-62-03	3.21	3.21	3.20	3.20	High Risk
JUNC-62-04	JUNC-62-03	2.12	2.94	4.63	5.17	High Risk
JUNC-62-05	JUNC-62-04	3.44	3.44	3.42	3.42	High Risk
JUNC-62-05	JUNC-62-04	2.39	3.29	5.15	5.76	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-62-06	JUNC-62-05	3.53	3.52	3.50	3.50	High Risk
JUNC-62-06	JUNC-62-05	2.34	3.22	5.03	5.63	High Risk
JUNC-62-07	JUNC-62-06	0.76	1.35	2.86	3.40	Minimal Risk
JUNC-63-01	JUNC-23-04	0.00	0.18	0.94	1.26	Minimal Risk
JUNC-63-01	JUNC-23-04	0.59	2.08	2.09	2.08	Possible Risk
JUNC-63-02	JUNC-63-01	0.00	0.86	1.48	1.67	Minimal Risk
JUNC-63-02	JUNC-63-01	1.70	2.85	2.72	2.66	High Risk
JUNC-64-01	JUNC-23-08	0.17	0.25	0.35	0.45	Minimal Risk
JUNC-64-01	JUNC-23-08	1.02	1.02	1.02	1.02	Minimal Risk
JUNC-64-02	JUNC-64-01	0.00	0.00	0.78	1.02	Minimal Risk
JUNC-64-02	JUNC-64-01	2.12	2.72	2.83	2.84	High Risk
JUNC-64-03	JUNC-64-02	0.00	0.00	1.07	1.30	Minimal Risk
JUNC-64-03	JUNC-64-02	2.54	3.13	3.07	3.08	High Risk
JUNC-64-04	JUNC-64-03	0.26	0.86	1.37	1.52	Minimal Risk
JUNC-64-04	JUNC-64-03	4.33	4.38	4.37	4.36	High Risk
JUNC-64-05	JUNC-64-04	0.74	1.03	1.41	1.55	Minimal Risk
JUNC-64-05	JUNC-64-04	3.54	3.56	3.55	3.54	High Risk
JUNC-64-06	JUNC-64-05	0.58	0.76	1.13	1.26	Minimal Risk
JUNC-64-06	JUNC-64-05	2.59	2.59	2.58	2.57	High Risk
JUNC-64-07	JUNC-64-06	4.06	4.06	4.08	4.07	High Risk
JUNC-64-07	JUNC-64-06	0.81	0.99	1.31	1.44	Minimal Risk
JUNC-64-08	JUNC-64-07	0.77	0.94	1.24	1.36	Minimal Risk
JUNC-64-08	JUNC-64-07	3.69	3.70	3.67	3.64	High Risk
JUNC-64-09	JUNC-64-08	0.83	0.99	1.30	1.42	Minimal Risk
JUNC-64-09	JUNC-64-08	2.39	2.38	2.39	2.37	High Risk
JUNC-64-10	JUNC-64-09	0.09	0.21	0.39	0.44	Minimal Risk
JUNC-64-10	JUNC-64-09	1.43	1.43	1.42	1.42	Minimal Risk
JUNC-64-11	JUNC-64-10	0.24	0.40	0.62	0.69	Minimal Risk
JUNC-64-11	JUNC-64-10	1.50	1.50	1.50	1.50	Minimal Risk
JUNC-65-01	JUNC-23-11	1.06	1.18	1.21	1.22	Minimal Risk
JUNC-65-01	JUNC-23-11	0.00	0.37	0.92	1.07	Minimal Risk
JUNC-66-01	JUNC-23-15	2.88	2.88	2.88	2.88	High Risk
JUNC-66-01	JUNC-23-15	1.00	1.19	1.50	1.62	Minimal Risk
JUNC-67-01	JUNC-26-01	0.37	0.39	0.30	0.28	Minimal Risk
JUNC-67-02	JUNC-67-01	2.56	3.42	3.71	3.71	High Risk
JUNC-67-02	JUNC-67-01	0.00	0.00	0.39	0.48	Minimal Risk
JUNC-68-01	JUNC-26-01	2.33	2.95	3.55	3.60	High Risk
JUNC-68-02	JUNC-68-01	3.18	3.56	5.59	5.53	High Risk
JUNC-68-02	JUNC-68-01	0.00	0.00	0.00	0.74	Minimal Risk
JUNC-68-03	JUNC-68-02	2.51	3.33	3.65	3.63	High Risk
JUNC-68-03	JUNC-68-02	0.00	0.00	0.64	0.72	Minimal Risk
JUNC-69-01	JUNC-26-02	0.51	0.58	0.48	0.46	Minimal Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-69-02	JUNC-69-01	4.10	4.28	6.47	6.47	High Risk
JUNC-69-02	JUNC-69-01	0.00	0.00	0.46	0.64	Minimal Risk
JUNC-69-03	JUNC-69-02	2.14	2.96	3.15	3.15	High Risk
JUNC-69-03	JUNC-69-02	0.00	0.00	0.63	0.70	Minimal Risk
JUNC-70-01	JUNC-27-05	3.45	3.22	2.64	2.43	High Risk
JUNC-70-01	JUNC-27-05	1.52	1.93	2.71	2.97	Possible Risk
JUNC-70-02	JUNC-70-01	0.82	1.11	0.90	0.87	Minimal Risk
JUNC-70-02	JUNC-70-01	3.06	2.90	2.66	2.51	High Risk
JUNC-7-01	JUNC-1-07	1.61	1.92	1.17	1.37	Minimal Risk
JUNC-7-02	JUNC-7-01	1.15	1.43	1.71	2.08	Minimal Risk
JUNC-7-03	JUNC-7-02	2.93	3.87	5.50	5.97	High Risk
JUNC-7-04	JUNC-7-03	4.15	5.29	7.03	7.55	High Risk
JUNC-71-01	JUNC-27-02	2.23	2.63	2.64	2.64	High Risk
JUNC-71-01	JUNC-27-02	0.00	0.21	0.90	1.17	Minimal Risk
JUNC-71-02	JUNC-71-01	2.68	2.87	2.96	2.86	High Risk
JUNC-71-02	JUNC-71-01	0.00	0.86	1.65	1.87	Minimal Risk
JUNC-71-03	JUNC-71-02	1.82	1.82	1.82	1.81	Minimal Risk
JUNC-71-03	JUNC-71-02	0.39	0.71	1.14	1.26	Minimal Risk
JUNC-71-04	JUNC-71-03	0.75	1.16	1.47	1.62	Minimal Risk
JUNC-71-04	JUNC-71-03	3.25	3.50	3.21	3.09	High Risk
JUNC-71-05	JUNC-71-04	0.50	0.74	1.18	1.32	Minimal Risk
JUNC-71-05	JUNC-71-04	2.18	2.27	2.01	1.91	High Risk
JUNC-72-01	JUNC-27-10	1.17	1.45	1.94	2.12	Minimal Risk
JUNC-72-01	JUNC-27-10	2.65	2.62	2.65	2.62	High Risk
JUNC-72-02	JUNC-72-01	0.83	1.07	1.43	1.57	Minimal Risk
JUNC-72-02	JUNC-72-01	2.43	2.43	2.42	2.42	High Risk
JUNC-72-03	JUNC-72-02	3.49	3.48	3.47	3.47	High Risk
JUNC-72-03	JUNC-72-02	1.29	1.54	1.97	2.13	Minimal Risk
JUNC-72-04	JUNC-72-03	2.82	2.81	2.80	2.80	High Risk
JUNC-72-04	JUNC-72-03	1.21	1.43	1.82	1.97	Minimal Risk
JUNC-73-01	JUNC-27-15	0.31	0.43	0.31	0.31	Minimal Risk
JUNC-74-01	JUNC-29-02	0.00	0.00	0.11	0.24	Minimal Risk
JUNC-74-01	JUNC-29-02	1.11	1.36	1.58	1.50	Minimal Risk
JUNC-75-01	JUNC-29-02	0.51	2.17	4.59	5.41	Possible Risk
JUNC-75-02	JUNC-29-06	4.23	6.97	6.98	6.96	High Risk
JUNC-75-02	JUNC-29-06	0.00	1.30	2.99	2.96	Minimal Risk
JUNC-75-03	JUNC-75-02	5.04	7.17	7.19	7.17	High Risk
JUNC-75-03	JUNC-75-02	0.00	1.31	3.39	3.42	Minimal Risk
JUNC-75-04	JUNC-75-03	6.90	7.37	7.38	7.38	High Risk
JUNC-75-04	JUNC-75-03	0.00	1.64	3.51	3.99	Minimal Risk
JUNC-75-05	JUNC-75-04	1.33	1.50	1.56	1.80	Minimal Risk
JUNC-75-06	JUNC-75-05	0.41	0.38	0.31	0.31	Minimal Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-75-07	JUNC-75-06	2.53	2.71	2.95	3.05	High Risk
JUNC-76-01	JUNC-29-02	0.26	0.59	0.73	0.67	Minimal Risk
JUNC-76-01	JUNC-29-02	3.27	3.41	2.71	2.36	High Risk
JUNC-77-01	JUNC-29-10	5.40	5.41	5.41	5.41	High Risk
JUNC-77-01	JUNC-29-10	1.47	2.26	2.35	2.91	Possible Risk
JUNC-77-02	JUNC-77-01	5.36	5.39	5.36	5.34	High Risk
JUNC-77-02	JUNC-77-01	0.99	1.41	2.09	2.30	Minimal Risk
JUNC-77-03	JUNC-77-02	2.05	3.51	5.01	5.02	High Risk
JUNC-77-03	JUNC-77-02	0.00	0.00	1.22	1.73	Minimal Risk
JUNC-77-04	JUNC-77-03	7.57	8.65	8.73	8.73	High Risk
JUNC-77-04	JUNC-77-03	0.00	1.57	3.96	4.17	Minimal Risk
JUNC-78-01	JUNC-31-02	0.00	0.00	0.00	1.91	Minimal Risk
JUNC-78-01	JUNC-31-02	6.17	6.25	6.31	6.32	High Risk
JUNC-78-02	JUNC-78-01	1.09	1.08	1.08	1.30	Minimal Risk
JUNC-78-03	JUNC-78-02	0.07	0.08	0.10	0.11	Minimal Risk
JUNC-78-03	JUNC-78-02	0.03	0.04	0.05	0.05	Minimal Risk
JUNC-78-04	JUNC-78-03	2.26	2.50	2.86	3.00	High Risk
JUNC-78-05	JUNC-78-04	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-78-05	JUNC-78-04	3.79	4.23	4.86	5.11	High Risk
JUNC-78-06	JUNC-78-05	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-78-06	JUNC-78-05	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-79-01	JUNC-32-03	1.18	1.50	2.01	2.14	Minimal Risk
JUNC-79-02	JUNC-79-01	0.82	0.89	0.94	0.97	Minimal Risk
JUNC-79-03	JUNC-79-02	1.01	1.27	1.29	1.33	Minimal Risk
JUNC-79-04	JUNC-79-03	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-79-04	JUNC-79-03	5.51	6.43	7.09	7.26	High Risk
JUNC-80-01	JUNC-34-02	0.22	0.24	0.24	0.22	Minimal Risk
JUNC-80-02	JUNC-80-01	5.20	5.22	5.19	5.18	High Risk
JUNC-80-02	JUNC-80-01	0.99	1.43	2.03	2.23	Minimal Risk
JUNC-8-01	JUNC-1-08	1.98	2.49	2.81	2.94	High Risk
JUNC-8-02	JUNC-8-01	4.54	4.54	4.12	3.98	High Risk
JUNC-8-02	JUNC-8-01	0.66	1.23	2.23	2.43	Minimal Risk
JUNC-8-03	JUNC-8-02	3.83	3.92	3.94	3.94	High Risk
JUNC-8-03	JUNC-8-02	1.63	2.49	4.19	4.53	High Risk
JUNC-8-04	JUNC-8-03	1.69	2.62	4.47	4.79	High Risk
JUNC-8-04	JUNC-8-03	4.30	4.29	4.27	4.26	High Risk
JUNC-8-05	JUNC-8-04	3.64	3.66	3.69	3.68	High Risk
JUNC-8-05	JUNC-8-04	1.21	1.84	3.04	3.27	Minimal Risk
JUNC-8-06	JUNC-8-05	3.54	3.54	3.54	3.54	High Risk
JUNC-8-06	JUNC-8-05	0.78	1.73	3.08	3.31	Minimal Risk
JUNC-8-07	JUNC-8-06	0.23	0.80	2.11	2.39	Minimal Risk
JUNC-8-08	JUNC-8-07	3.80	3.83	3.86	3.84	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-8-08	JUNC-8-07	0.44	0.94	1.53	1.63	Minimal Risk
JUNC-8-09	JUNC-8-10	2.01	2.11	2.06	2.02	High Risk
JUNC-8-09	JUNC-8-08	0.12	0.43	1.40	1.67	Minimal Risk
JUNC-8-10	JUNC-8-09	0.52	0.92	1.43	1.41	Minimal Risk
JUNC-81-01	JUNC-34-02	0.22	0.24	0.42	0.49	Minimal Risk
JUNC-81-02	JUNC-81-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-81-02	JUNC-81-01	3.74	3.99	4.36	4.60	High Risk
JUNC-8-11	JUNC-8-10	0.40	0.76	1.55	1.84	Minimal Risk
JUNC-8-12	JUNC-8-11	0.80	1.67	2.64	2.91	Minimal Risk
JUNC-8-12	JUNC-8-11	7.49	7.52	7.47	7.43	High Risk
JUNC-82-01	JUNC-34-03	1.38	1.50	1.77	1.85	Minimal Risk
JUNC-82-02	JUNC-82-01	8.36	9.91	11.77	11.77	High Risk
JUNC-82-02	JUNC-82-01	0.00	0.00	1.83	2.55	Minimal Risk
JUNC-82-03	JUNC-82-02	3.57	4.43	4.45	4.45	High Risk
JUNC-82-03	JUNC-82-02	0.00	0.19	1.32	1.47	Minimal Risk
JUNC-82-04	JUNC-82-03	3.05	3.05	3.04	3.04	High Risk
JUNC-82-04	JUNC-82-03	1.15	1.74	2.18	2.29	Minimal Risk
JUNC-82-05	JUNC-82-04	3.20	3.20	3.20	3.18	High Risk
JUNC-82-05	JUNC-82-04	0.50	0.80	0.69	0.73	Minimal Risk
JUNC-82-06	JUNC-82-05	1.65	2.07	2.73	2.85	High Risk
JUNC-82-06	JUNC-82-05	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-82-07	JUNC-82-06	3.37	3.48	3.56	3.56	High Risk
JUNC-82-07	JUNC-82-06	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-83-01	JUNC-34-04	0.33	0.42	0.33	0.27	Minimal Risk
JUNC-83-02	JUNC-83-01	3.54	3.54	3.54	3.54	High Risk
JUNC-83-02	JUNC-83-01	0.47	0.79	1.12	1.24	Minimal Risk
JUNC-83-03	JUNC-83-02	2.54	2.69	2.52	2.39	High Risk
JUNC-83-03	JUNC-83-02	0.57	0.78	1.05	1.14	Minimal Risk
JUNC-84-01	JUNC-34-05	0.65	1.15	1.17	1.09	Minimal Risk
JUNC-85-01	JUNC-34-07	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-86-01	JUNC-34-07	2.93	3.45	4.66	5.85	High Risk
JUNC-86-02	JUNC-86-01	8.59	8.60	8.59	8.58	High Risk
JUNC-86-02	JUNC-86-01	2.44	3.76	6.21	7.09	High Risk
JUNC-86-03	JUNC-86-02	7.56	7.55	7.56	7.56	High Risk
JUNC-86-03	JUNC-86-02	2.57	3.34	5.20	6.31	High Risk
JUNC-86-04	JUNC-86-03	1.57	1.48	1.54	1.65	Minimal Risk
JUNC-86-04	JUNC-86-03	0.47	0.74	1.28	1.41	Minimal Risk
JUNC-86-05	JUNC-86-04	3.44	3.37	3.37	3.37	High Risk
JUNC-86-05	JUNC-86-04	0.95	1.42	2.30	2.55	Minimal Risk
JUNC-86-06	JUNC-86-05	2.46	2.45	2.48	2.49	High Risk
JUNC-86-06	JUNC-86-05	0.80	1.12	1.72	1.90	Minimal Risk
JUNC-86-07	JUNC-86-06	4.83	4.82	4.82	4.82	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-86-07	JUNC-86-06	1.12	1.48	2.41	2.68	Minimal Risk
JUNC-87-01	JUNC-35-01	0.94	1.11	1.31	1.39	Minimal Risk
JUNC-87-02	JUNC-87-01	4.00	4.65	5.29	5.56	High Risk
JUNC-87-02	JUNC-87-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-87-03	JUNC-87-02	4.71	4.88	4.89	4.89	High Risk
JUNC-87-03	JUNC-87-02	0.00	1.04	1.64	1.84	Minimal Risk
JUNC-87-04	JUNC-87-03	4.23	4.25	4.23	4.23	High Risk
JUNC-87-04	JUNC-87-03	0.00	1.21	1.77	1.96	Minimal Risk
JUNC-87-05	JUNC-87-04	4.47	4.63	4.48	4.50	High Risk
JUNC-87-05	JUNC-87-04	0.44	1.24	1.79	1.99	Minimal Risk
JUNC-88-01	JUNC-35-02	0.56	0.64	0.75	0.78	Minimal Risk
JUNC-88-02	JUNC-88-01	3.04	3.06	3.03	3.03	High Risk
JUNC-88-02	JUNC-88-01	0.27	0.53	0.79	0.88	Minimal Risk
JUNC-88-03	JUNC-88-02	2.88	2.96	2.84	2.86	High Risk
JUNC-88-03	JUNC-88-02	0.44	0.73	0.94	1.04	Minimal Risk
JUNC-89-01	JUNC-35-03	1.08	1.14	1.41	1.48	Minimal Risk
JUNC-89-02	JUNC-89-01	5.49	5.97	5.97	5.97	High Risk
JUNC-89-02	JUNC-89-01	0.00	0.00	1.27	1.48	Minimal Risk
JUNC-89-03	JUNC-89-02	4.06	4.37	4.36	4.37	High Risk
JUNC-89-03	JUNC-89-02	0.00	0.78	1.10	1.21	Minimal Risk
JUNC-90-01	JUNC-35-04	1.19	1.47	1.70	1.80	Minimal Risk
JUNC-90-02	JUNC-90-01	5.20	5.86	7.35	7.51	High Risk
JUNC-90-02	JUNC-90-01	0.00	0.00	0.00	0.66	Minimal Risk
JUNC-90-03	JUNC-90-02	3.72	4.13	4.68	4.69	High Risk
JUNC-90-03	JUNC-90-02	0.00	0.00	0.89	1.09	Minimal Risk
JUNC-9-01	JUNC-1-10	0.55	0.91	1.62	1.91	Minimal Risk
JUNC-9-02	JUNC-9-01	5.37	5.32	5.26	5.25	High Risk
JUNC-9-02	JUNC-9-01	1.53	1.99	2.63	2.85	Possible Risk
JUNC-9-03	JUNC-9-02	3.85	3.85	3.85	3.85	High Risk
JUNC-9-03	JUNC-9-02	1.54	2.09	2.81	3.05	High Risk
JUNC-9-04	JUNC-9-03	3.97	3.95	3.96	3.91	High Risk
JUNC-9-04	JUNC-9-03	1.58	2.07	2.74	2.97	High Risk
JUNC-9-05	JUNC-9-04	0.97	1.21	1.50	1.62	Minimal Risk
JUNC-9-05	JUNC-9-04	2.20	2.18	2.19	2.19	High Risk
JUNC-9-06	JUNC-9-05	1.38	1.57	1.86	1.99	Minimal Risk
JUNC-9-06	JUNC-9-05	2.55	2.55	2.55	2.55	High Risk
JUNC-91-01	JUNC-35-10	0.33	0.36	0.53	0.61	Minimal Risk
JUNC-91-02	JUNC-91-01	4.16	4.56	5.12	5.30	High Risk
JUNC-91-03	JUNC-91-02	2.90	3.17	3.56	3.70	High Risk
JUNC-92-01	JUNC-35-06	4.79	4.78	4.73	4.72	High Risk
JUNC-92-01	JUNC-35-06	0.66	1.06	1.53	1.67	Minimal Risk
JUNC-92-02	JUNC-92-01	3.46	3.68	3.43	3.15	High Risk

Table 6.3: Existing Storm Water Drainage System Erosion Risk Analysis and Assessment Results

Node Reference		Velocity (m/s)				Erosion Risk Assessment
Upstream Node	Downstream Node	1 in 5yr	1 in 10yr	1 in 50 yr	1 in 100yr	
JUNC-92-02	JUNC-92-01	0.69	1.07	1.51	1.65	Minimal Risk
JUNC-93-01	JUNC-36-03	0.54	0.72	1.11	1.33	Minimal Risk
JUNC-93-02	JUNC-93-01	6.54	6.96	7.07	7.39	High Risk
JUNC-93-02	JUNC-93-01	0.00	0.00	0.00	0.00	Minimal Risk
JUNC-93-03	JUNC-93-02	3.95	4.41	4.76	4.98	High Risk
JUNC-93-03	JUNC-93-02	0.00	0.00	0.00	0.66	Minimal Risk
JUNC-94-01	JUNC-36-07	0.15	0.23	0.39	0.46	Minimal Risk
JUNC-94-02	JUNC-94-01	1.05	1.26	1.50	1.60	Minimal Risk
JUNC-95-01	JUNC-41-05	1.43	1.92	1.95	1.95	Minimal Risk
JUNC-95-01	JUNC-41-05	0.00	0.18	0.67	0.79	Minimal Risk
JUNC-95-02	JUNC-95-01	1.55	1.62	1.57	1.56	Minimal Risk
JUNC-95-02	JUNC-95-01	0.00	0.00	0.61	0.74	Minimal Risk
JUNC-95-03	JUNC-95-02	1.71	1.89	2.29	2.29	Possible Risk
JUNC-95-03	JUNC-95-02	0.00	0.00	0.72	0.82	Minimal Risk
JUNC-96-01	JUNC-59-17	1.57	1.96	2.74	2.97	Possible Risk
JUNC-96-02	JUNC-96-01	1.43	1.96	2.90	3.17	Minimal Risk
JUNC-96-02	JUNC-96-01	8.52	8.52	8.52	8.52	High Risk
JUNC-96-03	JUNC-96-02	1.78	2.34	3.33	3.63	High Risk
JUNC-96-03	JUNC-96-02	4.83	4.85	4.80	4.82	High Risk
JUNC-96-04	JUNC-96-03	0.00	0.00	0.73	0.91	Minimal Risk
JUNC-96-04	JUNC-96-03	4.46	4.99	5.00	5.00	High Risk
JUNC-97-01	JUNC-64-09	0.90	1.03	1.25	1.34	Minimal Risk
JUNC-97-01	JUNC-64-09	3.88	3.89	3.89	3.85	High Risk
JUNC-98-01	JUNC-75-01	0.50	0.57	0.60	0.54	Minimal Risk
JUNC-98-02	JUNC-98-01	3.23	3.55	4.05	4.22	High Risk
JUNC-98-02	JUNC-98-01	3.47	3.82	4.36	4.54	High Risk
JUNC-99-01	JUNC-78-02	0.00	0.80	1.27	1.43	Minimal Risk
JUNC-99-01	JUNC-78-02	6.42	6.44	6.43	6.41	High Risk