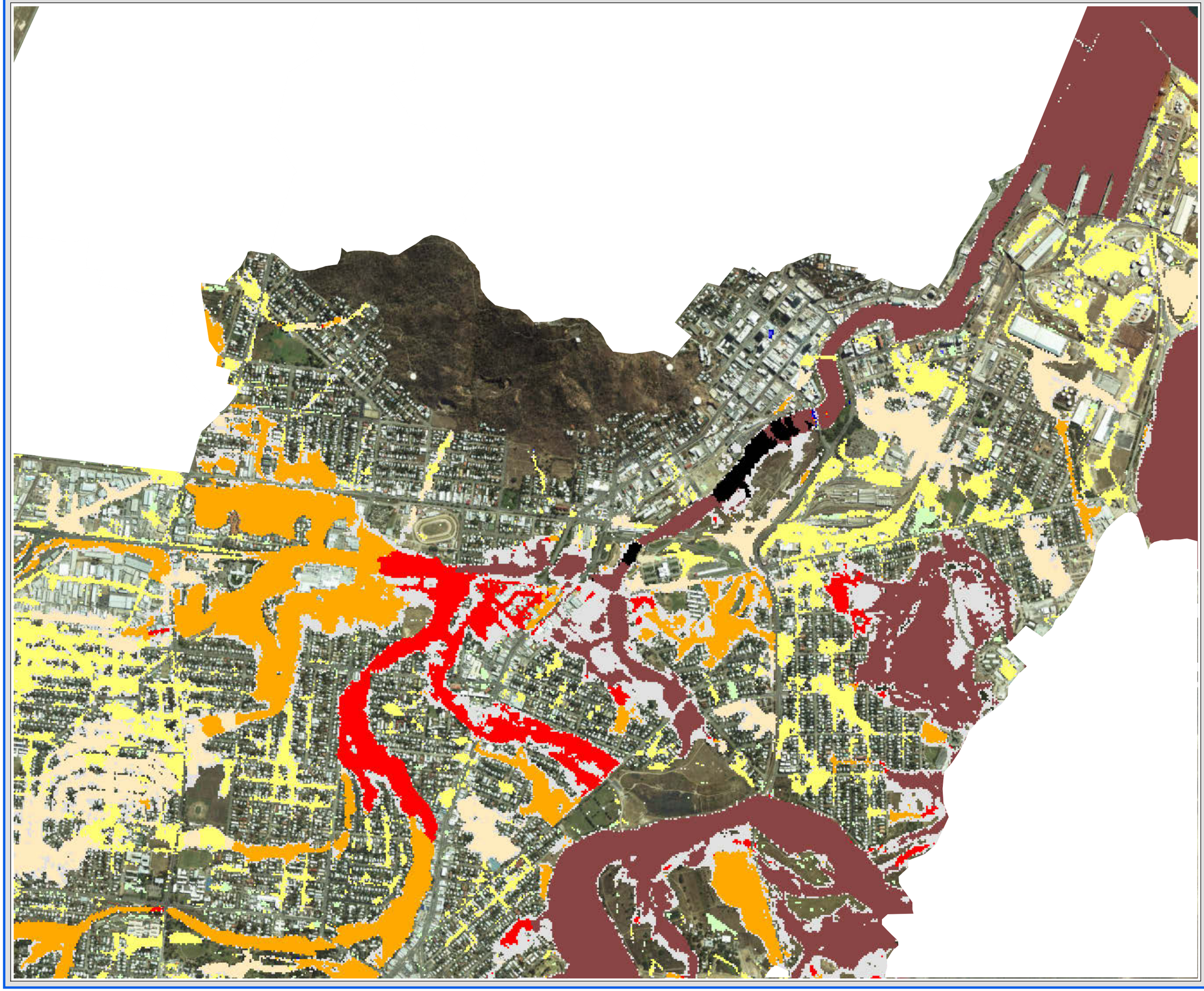
ROSS CREEK FLOOD STUDY 100 Y ARI & CLIMATE CHANGE

Figure 6-2b



LEGEND

Water Level Difference (m)

- Previously Inundated
- < -1
- -1 - -0.5
- -0.5 - -0.3
- -0.3 - -0.1
- -0.1 - -0.05
- -0.05 - -0.01
- -0.01 - 0.01
- 0.01 - 0.05
- 0.05 - 0.1
- 0.1 - 0.3
- 0.3 - 0.5
- 0.5 - 1
- > 1
- Now Inundated

2100 Climate Change includes 0.8m sea level rise & 15% increase in rainfall intensity

N

City of Townsville

SCALE: 1:20,000 @A3

200 100 0 200 400 600 Metres

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7.0 Summary and Conclusions

The *Ross Creek Flood Study – Baseline Flooding Assessment* is a major component of the City Wide Flood Constraints project being completed by Townsville City Council. This study has developed a detailed flood model incorporating hydrologic and hydraulic assessment for quantifying the flood risk on the Townsville Floodplain. The analyses undertaken for the project builds on previous hydrological and hydraulic studies undertaken as part of the Ross River Flood Study – Baseline Flooding Assessment and Townsville Flood Hazard Assessment Study.

The hydrological analysis completed for the project has employed both runoff-routing and rain on grid approaches. The study evaluates the impacts of local rainfall events and Ross River flooding events.

The MIKE FLOOD hydraulic model has been calibrated to the January 1998, February 2002 and January 2009 events. The design storm frequencies assessed across the range of storm durations were the:

- 2 Year ARI;
- 5 Year ARI;
- 10 Year ARI;
- 20 Year ARI;
- 50 Year ARI;
- 100 Year ARI;
- 200 Year ARI;
- 500 Year ARI; and
- Probable Maximum Flood.

The modelling has been used to:

- determine floodplain hydraulic mechanisms;
- assess approximate numbers of residential properties impacted by Ross River flooding;
- quantify flows about the floodplain for given frequency floods;
- categorise hazard zones within the floodplain;
- review floodplain planning considerations;
- identify issues for emergency management including flood warning and prediction, road closures and flood immunity of key emergency management sites;
- evaluate the impact on flooding of coincident Highest Astronomical Tide levels; and
- evaluate the impact on flooding of potential changes in sea-level and rainfall intensities associated with climate change.

7.1 Floodplain Hydraulic Mechanisms

Floodplain hydraulic mechanisms have been examined in detail in **Section 5.1** on a suburb by suburb basis. Generally flows generated by local rainfall travel via the major flows of Mindham Park Drain, Woolcock Canal and Ross Creek to Cleveland Bay, however through the suburbs of Vincent, Gulliver and Currajong there is no major flow paths once the capacity of the underground drainage is exceeded.

With increasing magnitude of flood events there are overflows between catchments and major flow paths, including:

- Upstream of Lakes I (lower Hopkins Street Drain) through northern Pimlico to Woolcock Canal;
- Lakes II overflow towards Captains Creek;
- Gulliver flow path towards Pimlico Drain;
- Lower Mindham Park Drain through northern Hyde Park to Woolcock Canal; and
- Hermit Park Drain along Charters Towers Road to Woolcock Canal.

In the 500 Year ARI event, overflows from Ross River enter Hermit Park significantly increasing the areas of inundation.

7.2 Inundation of Residential Properties

As a result of local runoff and Ross River overflows, there are residential properties potentially inundated within the study area. The number of residential properties inundated by depths of greater than 0.25 m above ground level is provided in **Table 7-1**.

Table 7-1 Summary of Residential Property Inundation

Design Flood	Residential Properties Inundated
2 Year ARI	580
5 Year ARI	970
10 Year ARI	1260
20 Year ARI	1695
50 Year ARI	2120
100 Year ARI	2605
200 Year ARI	3100
500 Year ARI	4200
PMF	11390

7.3 Floodplain Hazard

Floodplain hazard has been characterised based on the function of velocity-depth product outlined in *Floodplain Management in Australia: Best practices and principles (CSIRO, 2000)*. The floodplain hazard was evaluated for the 100 Year ARI, 500 Year ARI and PMF events. The hazard mapping indicates that:

- A majority of the residential properties inundated in the 100 Year ARI are characterised by Low and Medium hazard (52% and 36% respectively);
- A majority of the residential properties inundated in the 500 Year ARI are characterised by Low and Medium hazard (41% and 34% respectively);
- A majority of the residential properties inundated in the PMF area characterised as Medium and High hazard (32% and 32% respectively) with remaining properties in Extreme hazard areas rather than Low hazard areas.

7.4 Floodplain Planning

The new City Plan for Townsville proposes to adopt the 100 Year ARI flood as the Defined Flood Event and will adopt a Flood Overlay map comprising three hazard ratings for flooding:

- Low flood hazard – areas of residual flood risk beyond the 100 Year ARI;
- Medium flood hazard – areas of shallower and slower moving flood waters in the 100 Year ARI; and
- High flood Hazard – areas of deeper and faster moving flood waters in the 100 Year ARI.

Within the study area the following numbers of properties would be classified within each of the hazard rating areas:

- Low flood hazard rating - 14960 properties;
- Medium hazard rating - 4930 properties
- High hazard rating - 460 properties

7.5 Emergency Management

The results of the flood modelling provide a useful tool for estimating flooding impacts throughout the Ross Creek floodplain. Given the warning times available and the slow runtimes of the model, the model itself is not suitable for use as a real-time prediction tool.

Examination of the flood immunity of major evacuation routes throughout the Ross Creek floodplain identified a number of areas where the evacuation routes have flood immunity less than 2 Year ARI, including:

- Railway Avenue - Ninth Street;
- Railway Avenue - Doorey Street;
- Bowen Road – Rosslea Drain;
- Hugh Street – Woolcock Street;

- Nathan Street – Domain Central;
- Woolcock Street – Kings Road;
- Woolcock Street – Pilkington Street;
- Ross River Road – Vale Hotel;
- Nathan Street – Albert Street; and
- Nathan Street – Charles Street.

Given that Woolcock Street is the main north/west bound evacuation route from the City and Ingham Road in the same area is largely unaffected by flooding, it is recommended that Ingham Road be included as a major evacuation route.

A review of water depths above ground levels at Key Sites for emergency management has identified:

- A total of 26 key sites may be inundated in the PMF;
- Key response centres (Police, Fire, Ambulance, Council) inundated in the 500 Year ARI event include:
    - Fire and Rescue Operations in South Townsville; and
    - South Townsville Water Police.
- There are some aged care facilities with low levels of flood immunity and ideally early evacuation of these centres should be part of the Local Disaster Management Plan – Evacuation Sub-plan; and
- The Railway Estate Community Centre has low flood immunity and ideally should be part of any evacuation arrangements.

7.6 Impact of Higher Tides

A review of the potential for higher sea-levels to impact on flood levels was undertaken using the model. The tail water level was updated for sea level equal to Highest Astronomical Tide (2.25 m AHD).

The results show that any increase in flood levels associated with the increased sea levels are washed out by Balls Lane up Mindham Park Drain.

7.7 Impact of Climate Change

An assessment for the potential for climate change to impact on flooding has been undertaken. To account for climate change conditions in 2100, the model was updated to:

- include the sea level rise of 0.8 m on the Mean High Water Springs level to give a resulting sea level of 2.054 m AHD; and
- increase rainfall intensities by 15% in accordance with *Increasing Queensland's resilience to inland flooding in a changing climate* (DERM, 2010)

The results of the modelling indicate increases in flood levels in a majority of the urban area either just under 50mm or in the order of 50mm for the 50 and 100 Year ARI respectively. The results also show that areas likely to experience significant impacts on flooding associated with climate change are Rosslea, Hermit Park, Railway Estate, northern Pimlico and northern Hyde Park.

8.0 References

Bureau of Meteorology, (2003) *Guidebook to the Estimation of Probable Maximum Precipitation: Generalised Tropical Storm Method,* Report prepared by hydrometeorological advisory service and Re-issued in September 2005

CSIRO, (2000) *Floodplain Management in Australia: Best practices and principles,* Report 73 for SCARM

Department of Environment and Resource Management, Department of Infrastructure and Planning & Local Government Association of Queensland, (2010) *Increasing Queensland's resilience to inland flooding in a changing climate: Final Scientific Advisory Group (SAG) report—Derivation of a rainfall intensity figure to inform an effective interim policy approach to managing inland flooding risks in a changing climate*

Department of Local Government and Planning & Department of Emergency Services, (2003) *State Planning Policy 1/03 – Mitigating Adverse Impacts of Flood Bushfire and Landslide*

DHI Software, (2009) *MIKE FLOOD 1D-2D Modelling User Manual,* for MIKE FLOOD 2009

Engineers Australian (1998) *Australian Rainfall and Runoff – Volume 1*

Engineers Australian (1987) *Australian Rainfall and Runoff – Volume 2*

Gutteridge, Haskin & Davey, (2005) *Ross River Dam Upgrade Stages 2 to 5 - Design Validation Report*, Report prepared for NQ Water

Hargraves, G., (2000) *Final Report Extreme Rainfall Estimation Project - CRCFORGE and (CRC) ARF Techniques, Queensland And Border Locations,* Report from Water Assessment Group, Department of Natural Resources.

Hennessy, K., Webb, L., Ricketts, J., & Macadam, I., (2008) *Climate Change Projections for the Townsville Region*, Report prepared by CSIRO for Townsville City Council

Intergovernmental Panel on Climate Change, (2007*) Fourth Assessment Report: Climate Change 2007*

Maunsell, (2005a) *Townsville Flood Hazard Assessment Study, Phase 2 – Volume 1,* Report prepared for Townsville City Council

Maunsell, (2005b) *Townsville Flood Hazard Assessment Study, Phase 2 – Volume 2,* Report prepared for Townsville City Council

Maunsell, (2005c) *Townsville Flood Hazard Assessment Study, Phase 3,* Report prepared for Townsville City Council

Townsville City Council (2012) *Ross River Flood Study - Base-line Flooding Assessment, Volumes 1 and 2.*

Water Resources Commission (1990) *Ross River Dam Design Report – Volume 1*

XP-SOFTWARE, (2009*) XP-RAFTS Urban & Rural Runoff Routing Software – Reference Manual* for XP RAFTS 2009

Appendix A – Ross Creek Sub-Catchments

(Refer to Volume 2 also)

Sub-Catchment Parameters

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Ak-1.00	5.34	2.65	0.66	0.060	0.020	Gu-6.00	290.00	0.0043	20.00	0.040
Ak-1.00.01	4.49	1.17	0.66	0.060	0.020	Ak-1.00	0.00	0.0000	0.00	0.000
Ak-1.00.02	7.27	1.22	0.65	0.060	0.020	Ak-1.00.01	190.00	0.0005	5.50	0.035
Ak-1.00.03	4.10	1.49	0.62	0.060	0.020	Ak-1.00	400.00	0.0038	10.00	0.040
Ak-1.00.04	14.43	1.27	0.60	0.060	0.020	Ak-1.00.03	60.00	0.0017	3.50	0.030
Ak-1.00.05	4.85	0.91	0.61	0.060	0.020	Ak-1.00.04	400.00	0.0063	3.50	0.030
Ak-1.00.06	7.34	1.20	0.62	0.060	0.020	Ak-1.00.05	0.00	0.0000	0.00	0.000
Ak-1.00.07	4.85	1.23	0.61	0.060	0.020	Ak-1.00.06	430.00	0.0017	3.50	0.030
Ak-1.00.08	5.13	1.39	0.48	0.060	0.020	Ak-1.00.07	260.00	0.0096	3.50	0.030
Ak-1.00.09	6.85	1.42	0.55	0.060	0.020	Ak-1.00.05	100.00	0.0010	3.50	0.030
Ak-1.00.10	4.43	1.97	0.60	0.060	0.020	Ak-1.00.09	515.00	0.0009	3.50	0.030
Ak-1.01	8.19	1.03	0.65	0.060	0.020	Ak-1.00	440.00	0.0031	10.00	0.040
Ak-1.02	2.96	1.92	0.57	0.060	0.020	Ak-1.00	400.00	0.0031	10.00	0.040
Ak-1.02.01	1.26	1.09	0.61	0.060	0.020	Ak-1.02	240.00	0.0063	3.50	0.030
Ak-1.03	3.12	0.96	0.66	0.060	0.020	Ak-1.02	300.00	0.0050	3.50	0.030
Ak-1.04	4.99	1.08	0.64	0.060	0.020	Ak-1.03	170.00	0.0030	3.50	0.030
Ak-1.05	11.81	0.83	0.42	0.060	0.020	Ak-1.04	0.00	0.0000	0.00	0.000
Ak-1.06	7.48	0.69	0.64	0.060	0.020	Ak-1.05	115.00	0.0009	3.50	0.030
Ak-10.00	3.74	0.94	0.77	0.060	0.020	Ak-9.00	25.00	0.0001	3.50	0.030
Ak-2.00	1.57	1.74	0.69	0.060	0.020	Ak-1.00	0.00	0.0000	0.00	0.000
Ak-3.00	2.64	0.92	0.77	0.060	0.020	Ak-2.00	115.00	0.0087	3.50	0.030
Ak-4.00	3.71	0.84	0.72	0.060	0.020	Ak-3.00	130.00	0.0019	3.50	0.030
Ak-5.00	4.37	0.84	0.77	0.060	0.020	Ak-4.00	300.00	0.0033	3.50	0.030
Ak-5.01	2.93	0.76	0.82	0.060	0.020	Ak-5.01	0.00	0.0000	0.00	0.000
Ak-5.02	8.71	0.99	0.86	0.060	0.020	Ak-5.00	380.00	0.0007	3.50	0.030
Ak-6.00	0.96	0.90	0.68	0.060	0.020	Ak-5.00	0.00	0.0000	0.00	0.000
Ak-6.01	4.78	0.75	0.66	0.060	0.020	Ak-6.00	120.00	0.0001	3.50	0.030
Ak-7.00	4.46	0.76	0.69	0.060	0.020	Ak-6.00	230.00	0.0043	3.50	0.030
Ak-7.01	13.78	0.81	0.66	0.060	0.020	Ak-7.00	0.00	0.0000	0.00	0.000
Ak-7.01.01	6.62	1.06	0.59	0.060	0.020	Ak-7.01	780.00	0.0016	3.50	0.030
Ak-7.01.02	4.05	0.92	0.60	0.060	0.020	Ak-7.01.01	230.00	0.0022	3.50	0.030
Ak-7.02	3.31	0.80	0.66	0.060	0.020	Ak-7.01	600.00	0.0013	3.50	0.030
Ak-7.03	3.20	0.77	0.66	0.060	0.020	Ak-7.02	120.00	0.0008	3.50	0.030
Ak-7.04	3.10	0.83	0.66	0.060	0.020	Ak-7.03	115.00	0.0043	3.50	0.030
Ak-7.05	1.87	1.00	0.64	0.060	0.020	Ak-7.04	130.00	0.0008	3.50	0.030
Ak-8.00	2.15	0.77	0.69	0.060	0.020	Ak-7.00	250.00	0.0030	3.50	0.030
Ak-9.00	2.27	0.79	0.69	0.060	0.020	Ak-8.00	120.00	0.0021	3.50	0.030
Cj-1.00	11.48	2.42	0.45	0.060	0.020	CT-1.00	0.00	0.0000	0.00	0.000
Cj-1.01	7.42	1.64	0.66	0.060	0.020	Cj-1.00	415.00	0.0030	10.00	0.040
Cj-1.01.01	4.44	0.86	0.37	0.060	0.020	Cj-1.01	120.00	0.0210	3.50	0.030
Cj-1.02	0.91	1.17	0.75	0.060	0.020	Cj-1.01	295.00	0.0008	10.00	0.040
Cj-1.02.01	6.44	0.96	0.76	0.060	0.020	Cj-1.02	67.00	0.0037	3.50	0.030
Cj-1.02.02	3.91	0.96	0.71	0.060	0.020	Cj-1.02.01	490.00	0.0010	3.50	0.030
Cj-1.02.03	0.48	1.27	0.46	0.060	0.020	Cj-1.02.02	295.00	0.0017	3.50	0.030
Cj-1.03	1.89	0.72	0.64	0.060	0.020	Cj-1.02	0.00	0.0000	0.00	0.000
Cj-1.03.01	10.90	0.76	0.64	0.060	0.020	Cj-1.03	61.00	0.0004	3.50	0.030
Cj-1.03.02	12.74	0.65	0.54	0.060	0.020	Cj-1.03.01	210.00	0.0036	3.50	0.030
Cj-1.03.03	12.37	0.65	0.64	0.060	0.020	Cj-1.03.02	180.00	0.0014	3.50	0.030
Cj-1.03.04	27.81	0.68	0.54	0.060	0.020	Cj-1.03.03	205.00	0.0037	3.50	0.030
Cj-1.04	2.09	0.79	0.63	0.060	0.020	Cj-1.03	375.00	0.0027	3.50	0.030
Cj-1.05	0.57	0.49	0.64	0.060	0.020	Cj-1.04	145.00	0.0003	3.50	0.030
Cj-1.05.01	6.74	0.77	0.63	0.060	0.020	Cj-1.05	50.00	0.0023	3.50	0.030
Cj-1.05.02	1.68	0.82	0.63	0.060	0.020	Cj-1.05.01	65.00	0.0038	3.50	0.030
Cj-1.06	0.82	0.60	0.65	0.060	0.020	Cj-1.05	110.00	0.0023	3.50	0.030
Cj-1.06.01	0.65	0.60	0.63	0.060	0.020	Cj-1.06	130.00	0.0005	3.50	0.030
Cj-1.06.02	0.10	0.97	0.41	0.060	0.020	Cj-1.06.01	140.00	0.0004	3.50	0.030
Cj-1.07	1.76	0.86	0.64	0.060	0.020	Cj-1.06	95.00	0.0005	3.50	0.030
Cj-1.07.01	1.86	0.85	0.63	0.060	0.020	Cj-1.07	90.00	0.0011	3.50	0.030
Cj-1.07.02	3.88	1.01	0.67	0.060	0.020	Cj-1.07.01	80.00	0.0031	3.50	0.030
Cj-1.07.03	13.79	1.06	0.63	0.060	0.020	Cj-1.07.02	205.00	0.0024	3.50	0.030
Cj-1.07.04	11.70	0.85	0.05	0.060	0.020	Cj-1.07.03	505.00	0.0019	3.50	0.030
Cj-1.07.05	5.28	0.80	0.33	0.060	0.020	Cj-1.07.04	415.00	0.0012	3.50	0.030
Cj-1.08	4.94	0.90	0.64	0.060	0.020	Cj-1.07	245.00	0.0010	3.50	0.030
Cj-1.09	8.84	0.64	0.28	0.060	0.020	Cj-1.08	185.00	0.0014	3.50	0.030
Cj-1.10	9.47	0.75	0.48	0.060	0.020	Cj-1.09	195.00	0.0026	3.50	0.030
Cj-10.00	3.49	1.59	0.71	0.060	0.020	Cj-9.00	310.00	0.0024	15.00	0.040
Cj-11.00	4.48	1.73	0.25	0.060	0.020	Cj-10.00	100.00	0.0025	15.00	0.040
Cj-12.00	3.58	1.27	0.83	0.060	0.020	Cj-11.00	230.00	0.0033	15.00	0.040
Cj-2.00	5.23	2.53	0.71	0.060	0.020	Cj-1.00	0.00	0.0000	0.00	0.000
Cj-3.00	3.01	1.31	0.74	0.060	0.020	Cj-2.00	200.00	0.0025	10.00	0.050
Cj-3.50	4.11	2.60	0.59	0.060	0.020	Cj-3.00	245.00	0.0031	10.00	0.050
Cj-3.50.01	2.34	1.20	0.71	0.060	0.020	Cj-3.50	0.00	0.0000	0.00	0.000
Cj-3.51	2.00	1.27	0.84	0.060	0.020	Cj-3.50	85.00	0.0018	3.50	0.030
Cj-3.52	6.87	0.91	0.86	0.060	0.020	Cj-3.51	195.00	0.0025	3.50	0.030
Cj-4.00	0.45	3.62	0.50	0.060	0.020	Cj-3.50	405.00	0.0018	10.00	0.050
Cj-4.01	2.41	0.71	0.86	0.060	0.020	Cj-4.00	90.00	0.0028	10.00	0.040
Cj-4.02	7.92	1.09	0.86	0.060	0.020	Cj-4.01	100.00	0.0100	3.50	0.030
Cj-5.00	3.10	2.94	0.60	0.060	0.020	Cj-4.00	90.00	0.0028	10.00	0.040
Cj-5.01	6.68	1.63	0.30	0.060	0.020	Cj-5.00	290.00	0.0026	10.00	0.040
Cj-5.02	6.93	1.58	0.42	0.060	0.020	Cj-5.01	635.00	0.0035	10.00	0.040
Cj-5.03	5.71	1.39	0.43	0.060	0.020	Cj-5.02	450.00	0.0011	10.00	0.040

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Cj-5.04	4.41	1.28	0.25	0.060	0.020	Cj-5.03	350.00	0.0029	10.00	0.040
Cj-6.00	10.62	1.50	0.29	0.060	0.020	Cj-5.00	190.00	0.0013	10.00	0.040
Cj-6.00.01	6.78	1.36	0.57	0.060	0.020	Cj-6.00	65.00	0.0077	3.50	0.030
Cj-6.00.02	6.70	0.94	0.64	0.060	0.020	Cj-6.00.01	420.00	0.0012	3.50	0.030
Cj-6.00.03	3.13	0.72	0.67	0.060	0.020	Cj-6.00.02	225.00	0.0011	3.50	0.030
Cj-6.00.04	8.47	1.38	0.84	0.060	0.020	Cj-6.00.03	75.00	0.0033	3.50	0.030
Cj-6.01	5.79	1.80	0.75	0.060	0.020	Cj-6.00	425.00	0.0029	3.50	0.030
Cj-6.01.01	5.77	1.22	0.78	0.060	0.020	Cj-6.01	330.00	0.0001	3.50	0.030
Cj-6.02	10.59	0.99	0.83	0.060	0.020	Cj-6.01	525.00	0.0001	3.50	0.030
Cj-6.02.01	3.08	1.07	0.81	0.060	0.020	Cj-6.02	210.00	0.0023	3.50	0.030
Cj-6.02.02	3.61	1.04	0.70	0.060	0.020	Cj-6.02.01	215.00	0.0012	3.50	0.030
Cj-6.03	3.70	1.38	0.82	0.060	0.020	Cj-6.02	65.00	0.0038	3.50	0.030
Cj-6.03.01	1.24	1.55	0.82	0.060	0.020	Cj-6.03	325.00	0.0008	3.50	0.030
Cj-6.04	2.66	1.43	0.83	0.060	0.020	Cj-6.03	245.00	0.0004	3.50	0.030
Cj-6.05	2.01	1.83	0.79	0.060	0.020	Cj-6.04	215.00	0.0023	3.50	0.030
Cj-6.05.01	7.11	1.11	0.85	0.060	0.020	Cj-6.05	130.00	0.0019	3.50	0.030
Cj-6.06	1.46	0.78	0.77	0.060	0.020	Cj-6.02.01	214.00	0.0012	3.50	0.030
Cj-6.07	3.72	0.81	0.81	0.060	0.020	Cj-6.06	0.00	0.0000	0.00	0.000
Cj-7.00	6.40	1.95	0.54	0.060	0.020	Cj-6.00	370.00	0.0034	15.00	0.040
Cj-8.00	1.42	3.17	0.20	0.060	0.020	Cj-7.00	450.00	0.0022	15.00	0.040
Cj-9.00	4.13	1.67	0.50	0.060	0.020	Cj-8.00	280.00	0.0009	15.00	0.040
Ck-1.00	1.46	0.90	0.61	0.060	0.020	Ak-5.02	600.00	0.0004	3.50	0.030
Ck-1.01	4.85	0.96	0.60	0.060	0.020	Ck-1.00	350.00	0.0028	5.50	0.030
Ck-10.00	8.47	0.69	0.23	0.060	0.020	Ck-9.00	265.00	0.0003	3.50	0.030
Ck-10.01	19.55	0.98	0.14	0.060	0.020	Ck-10.00	25.00	0.0001	3.50	0.030
Ck-11.00	1.77	1.15	0.61	0.060	0.020	Ck-10.00	450.00	0.0017	5.50	0.030
Ck-11.01	2.96	0.94	0.60	0.060	0.020	Ck-11.00	135.00	0.0037	5.50	0.030
Ck-11.02	6.73	1.11	0.41	0.060	0.020	Ck-11.01	240.00	0.0032	5.50	0.030
Ck-11.03	8.62	3.27	0.62	0.060	0.020	Ck-11.02	375.00	0.0020	5.50	0.030
Ck-11.03.01	2.47	5.96	0.52	0.060	0.020	Ck-11.03	415.00	0.0024	5.50	0.030
Ck-11.04	2.78	3.64	0.56	0.060	0.020	Ck-11.03	350.00	0.0014	3.50	0.030
Ck-12.00	2.57	0.96	0.63	0.060	0.020	Ck-11.00	220.00	0.0011	5.50	0.030
Ck-12.01	6.27	1.71	0.61	0.060	0.020	Ck-12.00	50.00	0.0001	3.50	0.030
Ck-12.02	5.03	1.01	0.61	0.060	0.020	Ck-12.01	460.00	0.0022	3.50	0.030
Ck-12.03	9.22	1.09	0.63	0.060	0.020	Ck-12.02	280.00	0.0018	3.50	0.030
Ck-12.04	7.21	1.00	0.63	0.060	0.020	Ck-12.03	120.00	0.0001	3.50	0.030
Ck-13.00	11.35	1.49	0.53	0.060	0.020	Ck-12.00	90.00	0.0005	3.50	0.030
Ck-13.01	8.19	1.54	0.61	0.060	0.020	Ck-13.00	320.00	0.0016	3.50	0.030
Ck-13.02	3.50	1.46	0.61	0.060	0.020	Ck-13.01	430.00	0.0005	3.50	0.030
Ck-13.03	2.57	1.82	0.61	0.060	0.020	Ck-13.02	130.00	0.0001	3.50	0.030
Ck-14.00	1.81	1.20	0.60	0.060	0.020	Ck-13.00	590.00	0.0013	3.50	0.030
Ck-15.00	2.69	1.22	0.61	0.060	0.020	Ck-14.00	170.00	0.0001	3.50	0.030
Ck-16.00	6.84	1.11	0.60	0.060	0.020	Ck-15.00	350.00	0.0021	3.50	0.030
Ck-2.00	0.55	1.21	0.65	0.060	0.020	Ck-1.00	0.00	0.0000	0.00	0.000
Ck-2.00.01	2.34	1.19	0.72	0.060	0.020	Ck-2.00	50.00	0.0001	3.50	0.030
Ck-2.01	1.77	1.16	0.65	0.060	0.020	Ck-2.00	0.00	0.0000	0.00	0.000
Ck-2.02	0.73	1.52	0.47	0.060	0.020	Ck-2.01	480.00	0.0031	5.50	0.030
Ck-3.00	3.03	1.46	0.61	0.060	0.020	Ck-2.00	180.00	0.0001	3.50	0.030
Ck-3.01	2.35	1.17	0.36	0.060	0.020	Ck-3.00	0.00	0.0000	0.00	0.000
Ck-3.02	3.01	1.59	0.01	0.060	0.020	Ck-3.01	145.00	0.0035	3.50	0.030
Ck-4.00	3.40	1.44	0.61	0.060	0.020	Ck-3.00	205.00	0.0024	3.50	0.030
Ck-4.01	6.41	0.84	0.02	0.060	0.020	Ck-4.00	0.00	0.0000	0.00	0.000
Ck-5.00	2.18	1.39	0.60	0.060	0.020	Ck-4.00	225.00	0.0022	3.50	0.030
Ck-5.01	2.99	1.14	0.03	0.060	0.020	Ck-5.00	0.00	0.0000	0.00	0.000
Ck-6.00	0.86	1.08	0.60	0.060	0.020	Ck-5.00	0.00	0.0000	0.00	0.000
Ck-6.01	3.47	1.32	0.61	0.060	0.020	Ck-6.00	70.00	0.0021	3.50	0.030
Ck-6.02	0.54	0.97	0.59	0.060	0.020	Ck-6.01	85.00	0.0018	3.50	0.030
Ck-6.03	3.44	0.61	0.04	0.060	0.020	Ck-6.02	95.00	0.0011	3.50	0.030
Ck-6.03.01	2.23	0.63	0.02	0.060	0.020	Ck-6.03	0.00	0.0000	0.00	0.000
Ck-6.03.02	0.67	0.96	0.60	0.060	0.020	Ck-6.03.01	100.00	0.0001	3.50	0.030
Ck-6.04	1.53	1.23	0.60	0.060	0.020	Ck-6.03	135.00	0.0019	3.50	0.030
Ck-6.05	2.86	1.44	0.60	0.060	0.020	Ck-6.04	80.00	0.0031	3.50	0.030
Ck-6.06	4.88	0.64	0.06	0.060	0.020	Ck-6.05	0.00	0.0000	0.00	0.000
Ck-7.00	6.97	1.15	0.27	0.060	0.020	Ck-6.00	75.00	0.0033	3.50	0.030
Ck-7.01	2.42	1.61	0.60	0.060	0.020	Ck-7.00	316.00	0.0003	3.50	0.030
Ck-7.02	6.87	1.50	0.61	0.060	0.020	Ck-7.01	120.00	0.0003	3.50	0.030
Ck-8.00	9.02	1.54	0.54	0.060	0.020	Ck-7.00	95.00	0.0005	3.50	0.030
Ck-9.00	2.70	1.31	0.59	0.060	0.020	Ck-8.00	380.00	0.0032	3.50	0.030
Ck-9.01	7.45	1.19	0.60	0.060	0.020	Ck-9.00	25.00	0.0003	3.50	0.030
CT-1.00	9.58	3.44	0.25	0.060	0.020	WE-12.00	390.00	0.0001	30.00	0.035
CT-1.00.01	0.95	1.89	0.50	0.060	0.020	CT-1.00	380.00	0.0046	10.00	0.040
CT-1.00.02	4.00	1.94	0.61	0.060	0.020	CT-1.00	0.00	0.0000	0.00	0.000
CT-1.00.03	1.74	3.08	0.51	0.060	0.020	CT-1.00	0.00	0.0000	0.00	0.000
CT-1.01	2.67	2.30	0.86	0.060	0.020	CT-1.00	20.00	0.1000	3.50	0.030
CT-1.02	5.50	2.40	0.86	0.060	0.020	CT-1.01	105.00	0.0001	3.50	0.030
CT-2.00	1.03	1.98	0.52	0.060	0.020	CT-1.00	220.00	0.0002	10.00	0.050
CT-3.00	4.50	1.08	0.69	0.060	0.020	CT-2.00	190.00	0.0005	3.50	0.030
CT-4.00	5.17	0.99	0.68	0.060	0.020	CT-3.00	120.00	0.0001	3.50	0.030
Cy-1.00	14.37	4.80	0.98	0.060	0.020	Outlet	0.00	0.0000	0.00	0.000
Cy-2.00	12.03	3.73	0.72	0.060	0.020	Cy-1.00	950.00	0.0001	100.00	0.035
Cy-2.00.01	9.65	2.52	0.72	0.060	0.020	Cy-2.00	370.00	0.0001	5.00	0.035
Cy-2.01	0.91	1.61	0.76	0.060	0.020	Cy-2.00	180.00	0.0001	25.00	0.035
Cy-2.01.01	1.51	3.02	0.77	0.060	0.020	Cy-2.01	0.00	0.0000	0.00	0.000

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Cy-2.02	2.39	1.65	0.65	0.060	0.020	Cy-2.01	105.00	0.0004	3.50	0.030
Cy-2.03	2.42	0.99	0.50	0.060	0.020	Cy-2.02	75.00	0.0006	3.50	0.030
Cy-2.04	3.05	1.06	0.54	0.060	0.020	Cy-2.03	60.00	0.0042	3.50	0.030
Cy-3.00	7.00	4.95	0.89	0.060	0.020	Cy-2.00	425.00	0.0001	100.00	0.035
Cy-3.00.01	1.16	13.18	0.75	0.060	0.020	Cy-3.00.02	80.00	0.0006	3.50	0.030
Cy-3.00.02	0.70	12.77	0.70	0.060	0.020	Cy-3.00.03	0.00	0.0000	0.00	0.000
Cy-3.00.03	0.76	15.00	0.73	0.060	0.020	Cy-3.00	160.00	0.0001	5.00	0.035
Cy-3.00.04	0.54	14.62	0.72	0.060	0.020	Cy-3.00.03	100.00	0.0001	3.50	0.030
Cy-3.01	1.18	8.04	0.71	0.060	0.020	Cy-3.00	335.00	0.0001	25.00	0.035
Cy-3.02	3.30	15.00	0.67	0.060	0.020	Cy-3.01	175.00	0.0170	3.50	0.030
Cy-3.03	5.03	15.00	0.68	0.060	0.020	Cy-3.02	20.00	0.0340	3.50	0.030
Cy-3.04	1.66	12.77	0.65	0.060	0.020	Cy-3.03	170.00	0.0368	3.50	0.030
Cy-4.00	1.70	8.11	0.78	0.060	0.020	Cy-3.00	315.00	0.0000	100.00	0.035
Cy-4.01	1.18	2.53	0.76	0.060	0.020	Cy-4.00	120.00	0.0001	25.00	0.035
Cy-4.02	2.07	4.87	0.88	0.060	0.020	Cy-4.01	70.00	0.0250	3.50	0.030
Cy-4.03	2.68	4.11	0.63	0.060	0.020	Cy-4.02	135.00	0.0278	3.50	0.030
Cy-4.04	4.22	15.00	0.74	0.060	0.020	Cy-4.03	130.00	0.0346	3.50	0.030
Cy-5.00	3.94	3.71	0.54	0.060	0.020	Cy-4.00	130.00	0.0001	100.00	0.035
Cy-5.00.01	1.31	2.30	0.80	0.060	0.020	Cy-5.00	155.00	0.0001	2.00	0.035
Cy-5.01	1.57	3.03	0.80	0.060	0.020	Cy-5.00	116.00	0.0001	25.00	0.035
Cy-5.01.01	0.44	2.85	0.65	0.060	0.020	Cy-5.01	0.00	0.0000	0.00	0.000
Cy-5.02	2.47	3.54	0.81	0.060	0.020	Cy-5.01	105.00	0.0167	3.50	0.030
Cy-5.02.01	0.54	4.79	0.75	0.060	0.020	Cy-5.02	25.00	0.0010	3.50	0.030
Cy-5.03	1.74	4.77	0.76	0.060	0.020	Cy-5.02	130.00	0.0346	3.50	0.030
Cy-5.04	2.97	13.53	0.71	0.060	0.020	Cy-5.03	145.00	0.0310	3.50	0.030
Cy-6.00	6.37	3.62	0.46	0.060	0.020	Cy-5.00	165.00	0.0001	100.00	0.035
Cy-6.00.01	2.52	1.97	0.76	0.060	0.020	Cy-6.00	255.00	0.0001	25.00	0.035
Cy-6.00.02	2.39	3.70	0.83	0.060	0.020	Cy-6.00.01	280.00	0.0143	3.50	0.030
Cy-6.00.03	0.91	3.18	0.66	0.060	0.020	Cy-6.00.02	25.00	0.0200	3.50	0.030
Cy-6.00.04	3.28	4.63	0.80	0.060	0.020	Cy-6.00.03	150.00	0.0167	3.50	0.030
Cy-6.00.05	8.02	15.00	0.73	0.060	0.020	Cy-6.00.04	140.00	0.0215	3.50	0.030
Cy-6.00.06	2.97	10.48	0.67	0.060	0.020	Cy-6.00.05	130.00	0.0346	3.50	0.030
Cy-6.00.07	4.71	15.00	0.65	0.060	0.020	Cy-6.00.06	135.00	0.0389	3.50	0.030
Cy-6.01	13.76	1.24	0.09	0.060	0.020	Cy-6.00	270.00	0.0083	3.50	0.030
Cy-6.01.01	2.86	1.19	0.64	0.060	0.020	Cy-6.01	0.00	0.0000	0.00	0.000
Cy-6.01.02	2.13	1.69	0.67	0.060	0.020	Cy-6.01.01	50.00	0.0001	3.50	0.030
Cy-6.02	11.60	0.94	0.37	0.060	0.020	Cy-6.01	255.00	0.0001	3.50	0.030
Cy-6.02.01	3.94	1.10	0.51	0.060	0.020	Cy-6.02	450.00	0.0017	3.50	0.030
Cy-6.03	3.63	1.32	0.65	0.060	0.020	Cy-6.02	280.00	0.0018	3.50	0.030
Cy-6.03.01	2.66	1.37	0.60	0.060	0.020	Cy-6.03	90.00	0.0002	3.50	0.030
Cy-6.03.02	2.02	1.28	0.69	0.060	0.020	Cy-6.03	220.00	0.0034	3.50	0.030
Cy-6.04	3.02	1.48	0.17	0.060	0.020	Cy-6.03	230.00	0.0032	3.50	0.030
Cy-6.04.01	2.66	2.60	0.59	0.060	0.020	Cy-6.04	135.00	0.0001	3.50	0.030
Cy-6.04.02	1.52	1.64	0.59	0.060	0.020	Cy-6.04.01	130.00	0.0058	3.50	0.030
Cy-6.05	2.01	3.18	0.58	0.060	0.020	Cy-6.04	230.00	0.0043	3.50	0.030
Cy-6.05.01	1.57	2.07	0.82	0.060	0.020	Cy-6.05	0.00	0.0000	0.00	0.000
Cy-7.00	14.23	2.66	0.76	0.060	0.020	Cy-6.00	255.00	0.0001	100.00	0.035
Cy-7.00.01	20.09	1.29	0.15	0.060	0.020	Cy-7.00	330.00	0.0083	10.00	0.050
Cy-7.01	2.52	3.81	0.79	0.060	0.020	Cy-7.00	320.00	0.0001	25.00	0.035
Cy-7.02	1.94	4.83	0.76	0.060	0.020	Cy-7.01	150.00	0.0267	3.50	0.030
Cy-8.00	4.00	2.46	0.85	0.060	0.020	Cy-7.00	310.00	0.0001	100.00	0.035
Cy-8.01	1.72	4.77	0.65	0.060	0.020	Cy-8.00	145.00	0.0001	50.00	0.035
Cy-8.02	1.48	4.61	0.65	0.060	0.020	Cy-8.01	120.00	0.0231	3.50	0.030
Cy-8.03	1.22	4.40	0.80	0.060	0.020	Cy-8.02	75.00	0.0067	3.50	0.030
Cy-8.04	6.43	15.00	0.32	0.060	0.020	Cy-8.03	210.00	0.0226	3.50	0.030
Cy-9.00	11.56	2.35	0.77	0.060	0.020	Cy-8.00	180.00	0.0001	100.00	0.035
Cy-9.01	4.35	5.69	0.76	0.060	0.020	Cy-9.00	220.00	0.0001	50.00	0.035
Cy-9.02	6.81	15.00	0.74	0.060	0.020	Cy-9.01	140.00	0.0140	3.50	0.030
Dm-1.00	6.72	0.97	0.74	0.060	0.020	WE-15.00	245.00	0.0020	25.00	0.050
Dm-1.00.01	5.04	0.97	0.86	0.060	0.020	Dm-1.00	0.00	0.0000	0.00	0.000
Dm-1.01	2.15	0.85	0.25	0.060	0.020	Dm-1.00	0.00	0.0000	0.00	0.000
Dm-1.02	1.06	1.18	0.28	0.060	0.020	Dm-1.01	730.00	0.0017	3.50	0.030
Dm-2.00	4.93	1.16	0.75	0.060	0.020	Dm-1.00	385.00	0.0013	3.50	0.030
Dm-3.00	7.69	1.23	0.77	0.060	0.020	Dm-2.00	55.00	0.0045	3.50	0.030
Dm-4.00	4.36	0.99	0.78	0.060	0.020	Dm-3.00	205.00	0.0012	3.50	0.030
Gu-1.00	7.00	4.13	0.43	0.060	0.020	Md-4.04	380.00	0.0003	60.00	0.040
Gu-1.00.01	6.66	1.87	0.50	0.060	0.020	Gu-1.00	0.00	0.0000	0.00	0.000
Gu-1.00.02	4.58	1.44	0.64	0.060	0.020	Gu-1.00.01	440.00	0.0063	3.50	0.030
Gu-1.00.03	7.29	1.63	0.66	0.060	0.020	Gu-1.00.01	390.00	0.0077	3.50	0.030
Gu-1.00.04	6.16	1.14	0.63	0.060	0.020	Gu-1.00.03	115.00	0.0022	3.50	0.030
Gu-1.00.05	4.40	1.07	0.63	0.060	0.020	Gu-1.00.04	425.00	0.0024	3.50	0.030
Gu-1.01	6.05	0.64	0.63	0.060	0.020	Gu-1.00	430.00	0.0069	3.50	0.030
Gu-1.01.01	1.61	0.70	0.62	0.060	0.020	Gu-1.01	280.00	0.0001	3.50	0.030
Gu-1.02	3.88	0.64	0.59	0.060	0.020	Gu-1.01	280.00	0.0001	3.50	0.030
Gu-1.03	2.69	0.54	0.64	0.060	0.020	Gu-1.02	205.00	0.0012	3.50	0.030
Gu-1.04	1.44	0.70	0.63	0.060	0.020	Gu-1.02	250.00	0.0010	3.50	0.030
Gu-1.05	2.55	0.69	0.64	0.060	0.020	Gu-1.04	0.00	0.0000	0.00	0.000
Gu-1.06	1.59	0.62	0.63	0.060	0.020	Gu-1.05	100.00	0.0025	3.50	0.030
Gu-1.07	3.37	0.54	0.64	0.060	0.020	Gu-1.06	160.00	0.0016	3.50	0.030
Gu-2.00	2.01	4.91	0.36	0.060	0.020	Gu-1.00	450.00	0.0011	30.00	0.040
Gu-2.00.01	1.39	3.11	0.33	0.060	0.020	Gu-2.00	0.00	0.0000	0.00	0.000
Gu-2.00.02	1.65	1.52	0.64	0.060	0.020	Gu-2.00.01	165.00	0.0030	10.00	0.040
Gu-2.00.03	1.53	1.83	0.67	0.060	0.020	Gu-2.00.02	108.00	0.0009	3.50	0.030

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Gu-2.00.04	1.12	2.10	0.62	0.060	0.020	Gu-2.00.02	135.00	0.0007	3.50	0.030
Gu-2.00.05	1.24	1.58	0.65	0.060	0.020	Gu-2.00.04	120.00	0.0042	3.50	0.030
Gu-2.00.06	1.71	1.19	0.65	0.060	0.020	Gu-2.00.05	0.00	0.0000	0.00	0.000
Gu-2.00.07	1.71	1.45	0.63	0.060	0.020	Gu-2.00.05	120.00	0.0008	3.50	0.030
Gu-2.00.08	2.30	1.74	0.66	0.060	0.020	Gu-2.00.07	0.00	0.0000	0.00	0.000
Gu-2.00.09	2.92	1.82	0.64	0.060	0.020	Gu-2.00.08	120.00	0.0063	3.50	0.030
Gu-2.01	1.70	0.74	0.64	0.060	0.020	Gu-2.00	55.00	0.0409	3.50	0.030
Gu-3.00	3.93	3.44	0.31	0.060	0.020	Gu-2.00	180.00	0.0014	25.00	0.040
Gu-3.00.01	6.47	1.47	0.49	0.060	0.020	Gu-3.00	0.00	0.0000	0.00	0.000
Gu-3.01	1.50	3.39	0.61	0.060	0.020	Gu-3.00	0.00	0.0000	0.00	0.000
Gu-3.02	2.27	0.79	0.64	0.060	0.020	Gu-3.01	90.00	0.0001	3.50	0.030
Gu-3.03	2.40	0.72	0.64	0.060	0.020	Gu-3.02	60.00	0.0001	3.50	0.030
Gu-3.04	5.83	0.68	0.64	0.060	0.020	Gu-3.03	60.00	0.0001	3.50	0.030
Gu-3.05	3.74	0.82	0.65	0.060	0.020	Gu-3.04	240.00	0.0010	3.50	0.030
Gu-3.06	3.05	0.70	0.65	0.060	0.020	Gu-3.05	200.00	0.0001	3.50	0.030
Gu-3.07	2.24	0.68	0.65	0.060	0.020	Gu-3.06	100.00	0.0001	3.50	0.030
Gu-4.00	7.26	2.59	0.01	0.060	0.020	Gu-3.00	220.00	0.0005	25.00	0.040
Gu-4.00.01	10.19	0.92	0.66	0.060	0.020	Gu-4.00	405.00	0.0031	25.00	0.040
Gu-4.00.02	8.41	1.49	0.77	0.060	0.020	Gu-4.00.01	0.00	0.0000	0.00	0.000
Gu-4.01	5.53	1.68	0.64	0.060	0.020	Gu-4.00	135.00	0.0019	25.00	0.040
Gu-4.02	8.78	0.74	0.63	0.060	0.020	Gu-4.01	230.00	0.0109	3.50	0.030
Gu-4.03	8.07	0.73	0.64	0.060	0.020	Gu-4.02	185.00	0.0001	3.50	0.030
Gu-4.04	4.18	1.06	0.65	0.060	0.020	Gu-4.03	115.00	0.0008	3.50	0.030
Gu-4.05	5.76	0.84	0.65	0.060	0.020	Gu-4.04	105.00	0.0009	3.50	0.030
Gu-4.06	6.67	0.75	0.65	0.060	0.020	Gu-4.05	110.00	0.0023	3.50	0.030
Gu-5.00	7.46	1.90	0.38	0.060	0.020	Gu-4.00	490.00	0.0005	25.00	0.040
Gu-5.01	4.69	1.31	0.73	0.060	0.020	Gu-5.00	110.00	0.0130	25.00	0.040
Gu-6.00	5.91	2.62	0.47	0.060	0.020	Gu-5.00	195.00	0.0013	25.00	0.040
Gu-7.00	10.52	1.09	0.74	0.060	0.020	Gu-6.00	0.00	0.0000	0.00	0.000
Gu-8.00	20.06	0.87	0.48	0.060	0.020	Gu-7.00	400.00	0.0018	3.50	0.030
Hk-1.00	5.39	3.04	0.36	0.060	0.020	CT-1.00	0.00	0.0000	0.00	0.000
Hk-1.01	3.25	1.08	0.65	0.060	0.020	Hk-1.00	105.00	0.0190	3.50	0.030
Hk-10.00	3.07	0.36	0.12	0.060	0.020	Hk-9.00	130.00	0.0038	3.50	0.030
Hk-11.00	1.55	0.55	0.60	0.060	0.020	Hk-10.00	30.00	0.0017	3.50	0.030
Hk-12.00	3.76	0.74	0.64	0.060	0.020	Hk-11.00	0.00	0.0000	0.00	0.000
Hk-13.00	2.70	0.64	0.65	0.060	0.020	Hk-12.00	173.00	0.0014	3.50	0.030
Hk-13.01	2.30	0.61	0.66	0.060	0.020	Hk-13.00	25.00	0.0004	3.50	0.030
Hk-14.00	5.05	0.74	0.64	0.060	0.020	Hk-13.00	100.00	0.0025	3.50	0.030
Hk-2.00	3.25	2.27	0.24	0.060	0.020	Hk-1.00	275.00	0.0009	35.00	0.050
Hk-2.00.01	1.15	0.98	0.60	0.060	0.020	Hk-2.00	100.00	0.0175	3.50	0.030
Hk-2.00.02	2.19	0.77	0.63	0.060	0.020	Hk-2.00.01	140.00	0.0054	3.50	0.030
Hk-2.00.03	1.17	2.10	0.65	0.060	0.020	Hk-2.00	160.00	0.0047	10.00	0.050
Hk-2.00.04	3.70	0.60	0.65	0.060	0.020	Hk-2.00.03	125.00	0.0140	3.50	0.030
Hk-2.00.05	5.43	1.07	0.64	0.060	0.020	Hk-2.00	195.00	0.0013	10.00	0.050
Hk-2.01	1.60	1.25	0.63	0.060	0.020	Hk-2.00	85.00	0.0147	3.50	0.030
Hk-2.02	2.98	0.72	0.65	0.060	0.020	Hk-2.01	75.00	0.0067	3.50	0.030
Hk-2.03	2.37	1.03	0.62	0.060	0.020	Hk-2.02	120.00	0.0021	3.50	0.030
Hk-3.00	1.65	2.65	0.39	0.060	0.020	Hk-2.00	205.00	0.0012	10.00	0.050
Hk-3.01	4.08	0.92	0.66	0.060	0.020	Hk-3.00	75.00	0.0167	10.00	0.040
Hk-3.02	2.83	0.97	0.64	0.060	0.020	Hk-3.00	125.00	0.0004	10.00	0.050
Hk-4.00	2.89	1.93	0.66	0.060	0.020	Hk-3.00	135.00	0.0004	10.00	0.050
Hk-5.00	1.22	1.85	0.67	0.060	0.020	Hk-4.00	175.00	0.0014	5.00	0.050
Hk-5.01	2.95	0.64	0.63	0.060	0.020	Hk-5.00	0.00	0.0000	0.00	0.000
Hk-6.00	1.13	1.00	0.65	0.060	0.020	Hk-5.00	140.00	0.0018	5.00	0.050
Hk-7.00	1.96	1.18	0.36	0.060	0.020	Hk-6.00	26.00	0.0096	5.00	0.050
Hk-8.00	0.70	1.11	0.10	0.060	0.020	Hk-7.00	85.00	0.0088	5.00	0.050
Hk-8.01	4.19	0.74	0.63	0.060	0.020	Hk-8.00	160.00	0.0016	3.50	0.030
Hk-9.00	0.52	0.83	0.10	0.060	0.020	Hk-8.00	0.00	0.0000	0.00	0.000
Hk-9.00.01	2.43	0.82	0.57	0.060	0.020	Hk-9.00	0.00	0.0000	0.00	0.000
Hk-9.00.02	2.76	0.35	0.04	0.060	0.020	Hk-9.00.01	40.00	0.0013	3.50	0.030
Hk-9.01	2.40	0.65	0.62	0.060	0.020	Hk-9.00	136.00	0.0037	3.50	0.030
Hk-9.02	3.37	0.60	0.65	0.060	0.020	Hk-9.01	0.00	0.0000	0.00	0.000
Hk-9.03	2.17	0.43	0.64	0.060	0.020	Hk-9.02	160.00	0.0003	3.50	0.030
Hm-1.00	3.00	4.01	0.45	0.060	0.020	Hy-1.00	310.00	0.0015	25.00	0.040
Hm-1.01	5.21	1.30	0.63	0.060	0.020	Hm-1.00	185.00	0.0081	3.50	0.030
Hm-1.02	3.63	1.42	0.40	0.060	0.020	Hm-1.00	185.00	0.0162	3.50	0.030
Hm-10.00	0.44	2.47	0.64	0.060	0.020	Hm-9.00	230.00	0.0001	10.00	0.030
Hm-11.00	4.23	1.65	0.65	0.060	0.020	Hm-10.00	0.00	0.0020	3.50	0.030
Hm-12.00	2.15	1.58	0.64	0.060	0.020	Hm-11.00	95.00	0.0026	3.50	0.030
Hm-13.00	2.18	1.19	0.64	0.060	0.020	Hm-12.00	90.00	0.0012	3.50	0.030
Hm-2.00	3.29	2.55	0.53	0.060	0.020	Hm-1.00	195.00	0.0013	25.00	0.040
Hm-3.00	5.30	2.39	0.27	0.060	0.020	Hm-2.00	110.00	0.0005	25.00	0.040
Hm-3.01	7.22	1.26	0.61	0.060	0.020	Hm-3.00	150.00	0.0050	3.50	0.030
Hm-4.00	7.49	2.67	0.23	0.060	0.020	Hm-3.00	115.00	0.0022	25.00	0.040
Hm-4.01	7.37	1.35	0.66	0.060	0.020	Hm-4.00	325.00	0.0009	3.50	0.040
Hm-4.02	0.95	0.85	0.74	0.060	0.020	Hm-4.01	300.00	0.0025	3.50	0.030
Hm-5.00	4.12	2.62	0.44	0.060	0.020	Hm-4.00	290.00	0.0009	25.00	0.040
Hm-5.01	5.56	1.47	0.68	0.060	0.020	Hm-5.00	95.00	0.0026	3.50	0.030
Hm-5.02	1.32	0.79	0.68	0.060	0.020	Hm-5.01	220.00	0.0068	3.50	0.030
Hm-6.00	0.95	1.03	0.63	0.060	0.020	Hm-5.00	255.00	0.0015	10.00	0.030
Hm-6.01	2.51	1.20	0.65	0.060	0.020	Hm-6.00	30.00	0.0023	3.50	0.030
Hm-6.02	3.91	1.70	0.68	0.060	0.020	Hm-6.01	325.00	0.0023	3.50	0.030
Hm-7.00	2.21	1.97	0.65	0.060	0.020	Hm-6.00	0.00	0.0000	0.00	0.000

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Hm-7.01	2.15	1.36	0.66	0.060	0.020	Hm-7.00	85.00	0.0088	3.50	0.030
Hm-7.02	2.22	1.80	0.65	0.060	0.020	Hm-7.01	100.00	0.0001	3.50	0.030
Hm-7.03	2.22	1.89	0.65	0.060	0.020	Hm-7.02	95.00	0.0026	3.50	0.030
Hm-7.03.01	3.45	1.11	0.65	0.060	0.020	Hm-7.03	305.00	0.0005	3.50	0.030
Hm-7.03.02	3.00	0.91	0.68	0.060	0.020	Hm-7.03.01	185.00	0.0095	3.50	0.030
Hm-7.03.03	2.63	1.13	0.67	0.060	0.020	Hm-7.03.02	100.00	0.0001	3.50	0.030
Hm-7.03.04	3.56	0.59	0.19	0.060	0.020	Hm-7.03.03	95.00	0.0005	3.50	0.030
Hm-7.03.05	1.11	0.79	0.65	0.060	0.020	Hm-7.03.03	100.00	0.0001	3.50	0.030
Hm-7.03.06	5.10	0.96	0.67	0.060	0.020	Hm-7.03.05	90.00	0.0005	3.50	0.030
Hm-7.03.07	4.07	0.94	0.68	0.060	0.020	Hm-7.03.06	200.00	0.0038	3.50	0.030
Hm-7.04	0.96	1.12	0.65	0.060	0.020	Hm-7.03	100.00	0.0025	3.50	0.030
Hm-7.05	1.34	1.21	0.64	0.060	0.020	Hm-7.04	60.00	0.0083	3.50	0.030
Hm-7.05.01	2.05	1.57	0.63	0.060	0.020	Hm-7.05	0.00	0.0000	0.00	0.000
Hm-7.05.02	4.58	2.83	0.13	0.060	0.020	Hm-7.05.01	220.00	0.0001	3.50	0.030
Hm-7.06	3.94	1.06	0.64	0.060	0.020	Hm-7.05	230.00	0.0001	3.50	0.030
Hm-7.07	2.86	0.72	0.67	0.060	0.020	Hm-7.06	270.00	0.0056	3.50	0.030
Hm-8.00	0.28	2.93	0.52	0.060	0.020	Hm-7.00	52.00	0.0010	3.50	0.030
Hm-9.00	2.35	3.63	0.59	0.060	0.020	Hm-8.00	0.00	0.0000	0.00	0.000
Hp-1.00	7.81	2.49	0.33	0.060	0.020	WE-3.00	215.00	0.0005	50.00	0.035
Hp-1.00.01	4.02	1.30	0.43	0.060	0.020	Hp-1.00	245.00	0.0005	3.50	0.035
Hp-1.01	2.30	2.23	0.38	0.060	0.020	Hp-1.00	245.00	0.0005	10.00	0.035
Hp-1.01.01	3.19	1.69	0.54	0.060	0.020	Hp-1.01	150.00	0.0029	5.00	0.040
Hp-1.01.02	8.29	1.13	0.35	0.060	0.020	Hp-1.01.01	0.00	0.0000	0.00	0.000
Hp-1.02	4.12	1.72	0.28	0.060	0.020	Hp-1.01	175.00	0.0029	10.00	0.040
Hp-1.03	4.95	1.22	0.66	0.060	0.020	Hp-1.02	220.00	0.0091	15.00	0.040
Hp-1.04	4.72	1.26	0.64	0.060	0.020	Hp-1.03	100.00	0.0075	3.50	0.030
Hp-1.05	3.43	1.16	0.65	0.060	0.020	Hp-1.04	105.00	0.0024	3.50	0.030
Hp-2.00	10.24	3.20	0.39	0.060	0.020	Hp-1.00	320.00	0.0005	50.00	0.035
Hp-2.01	12.44	1.18	0.62	0.060	0.020	Hp-2.00	315.00	0.0093	10.00	0.040
Hp-3.00	22.02	3.63	0.28	0.060	0.020	Hp-2.00	545.00	0.0005	50.00	0.035
Hy-1.00	6.06	3.58	0.16	0.060	0.020	WE-8.00	190.00	0.0005	15.00	0.030
Hy-1.00.01	7.97	1.35	0.68	0.060	0.020	Hy-1.00	150.00	0.0100	5.00	0.040
Hy-1.00.02	7.22	1.30	0.72	0.060	0.020	Hy-1.00.01	265.00	0.0001	3.50	0.030
Hy-1.01	7.65	1.54	0.87	0.060	0.020	Hy-1.00	105.00	0.0095	5.00	0.040
Hy-1.02	2.42	1.43	0.85	0.060	0.020	Hy-1.01	360.00	0.0028	3.50	0.030
Hy-1.02.01	1.29	1.22	0.86	0.060	0.020	Hy-1.02	275.00	0.0009	3.50	0.030
Hy-1.03	8.56	1.06	0.67	0.060	0.020	Hy-1.02	190.00	0.0001	3.50	0.030
Hy-2.00	6.60	4.55	0.26	0.060	0.020	Hy-1.00	300.00	0.0005	20.00	0.040
IP-1.00	4.10	1.03	0.61	0.060	0.020	Cj-5.03	330.00	0.0053	10.00	0.040
IP-1.01	6.31	0.87	0.58	0.060	0.020	IP-1.00	430.00	0.0012	3.50	0.030
IP-1.02	0.95	0.92	0.64	0.060	0.020	IP-1.01	135.00	0.0037	3.50	0.030
IP-1.03	8.12	0.85	0.60	0.060	0.020	IP-1.02	40.00	0.0063	3.50	0.030
IP-10.00	7.72	0.92	0.33	0.060	0.020	IP-9.00	0.00	0.0000	0.00	0.000
IP-10.01	1.24	1.04	0.58	0.060	0.020	IP-10.00	295.00	0.0025	3.50	0.030
IP-10.01.01	2.75	1.27	0.60	0.060	0.020	IP-10.01	195.00	0.0026	3.50	0.030
IP-10.01.02	3.85	1.14	0.71	0.060	0.020	IP-10.01.01	295.00	0.0017	3.50	0.030
IP-10.02	1.65	1.33	0.85	0.060	0.020	IP-10.01	90.00	0.0028	3.50	0.030
IP-10.03	3.64	1.14	0.85	0.060	0.020	IP-10.02	105.00	0.0024	3.50	0.030
IP-11.00	3.35	1.03	0.61	0.060	0.020	IP-10.00	120.00	0.0042	3.50	0.030
IP-12.00	2.52	1.27	0.60	0.060	0.020	IP-11.00	190.00	0.0026	3.50	0.030
IP-12.01	6.10	1.37	0.55	0.060	0.020	IP-12.00	90.00	0.0028	3.50	0.030
IP-12.02	5.49	1.23	0.60	0.060	0.020	IP-12.01	240.00	0.0010	3.50	0.030
IP-12.02.01	2.73	1.30	0.60	0.060	0.020	IP-12.02	65.00	0.1150	3.50	0.030
IP-12.03	6.63	1.07	0.61	0.060	0.020	IP-12.02	255.00	0.0012	3.50	0.030
IP-12.04	7.15	1.12	0.60	0.060	0.020	IP-12.03	145.00	0.0017	3.50	0.030
IP-12.05	2.45	1.10	0.60	0.060	0.020	IP-12.04	210.00	0.0009	3.50	0.030
IP-13.00	1.89	1.15	0.60	0.060	0.020	IP-12.00	325.00	0.0023	3.50	0.030
IP-14.00	2.47	1.16	0.61	0.060	0.020	IP-13.00	240.00	0.0031	3.50	0.030
IP-15.00	2.90	0.95	0.61	0.060	0.020	IP-12.05	80.00	0.0031	3.50	0.030
IP-15.01	1.57	1.44	0.60	0.060	0.020	IP-15.00	40.00	0.0025	3.50	0.030
IP-15.01.01	2.25	1.23	0.60	0.060	0.020	IP-15.01	80.00	0.0013	3.50	0.030
IP-15.01.02	1.00	0.97	0.58	0.060	0.020	IP-15.01.01	240.00	0.0042	3.50	0.030
IP-15.02	0.89	1.49	0.59	0.060	0.020	IP-15.01	175.00	0.0014	3.50	0.030
IP-15.03	0.86	1.31	0.60	0.060	0.020	IP-15.02	80.00	0.0031	3.50	0.030
IP-16.00	11.95	1.13	0.59	0.060	0.020	IP-15.00	255.00	0.0011	3.50	0.030
IP-17.00	7.29	1.18	0.60	0.060	0.020	IP-16.00	220.00	0.0023	3.50	0.030
IP-2.00	5.24	1.11	0.62	0.060	0.020	IP-1.00	240.00	0.0021	3.50	0.030
IP-2.01	3.22	0.95	0.64	0.060	0.020	IP-2.00	240.00	0.0031	3.50	0.030
IP-2.02	6.59	1.05	0.65	0.060	0.020	IP-2.01	210.00	0.0002	3.50	0.030
IP-2.03	11.96	0.83	0.42	0.060	0.020	IP-2.02	420.00	0.0012	3.50	0.030
IP-2.03.01	2.09	0.80	0.53	0.060	0.020	IP-2.03	380.00	0.0007	3.50	0.030
IP-2.03.02	3.07	0.99	0.01	0.060	0.020	IP-2.03.01	130.00	0.0001	3.50	0.030
IP-2.03.03	5.02	0.89	0.62	0.060	0.020	IP-2.03.01	135.00	0.0001	3.50	0.030
IP-2.03.04	5.41	0.84	0.57	0.060	0.020	IP-2.03.01	100.00	0.0010	3.50	0.030
IP-2.04	2.84	1.10	0.52	0.060	0.020	IP-2.03	0.00	0.0000	0.00	0.000
IP-2.05	2.85	1.05	0.61	0.060	0.020	IP-2.04	285.00	0.0018	3.50	0.030
IP-3.00	1.10	1.15	0.60	0.060	0.020	IP-2.00	300.00	0.0017	3.50	0.030
IP-4.00	2.07	0.93	0.59	0.060	0.020	IP-3.00	200.00	0.0025	3.50	0.030
IP-5.00	0.74	0.87	0.57	0.060	0.020	IP-4.00	370.00	0.0014	3.50	0.030
IP-6.00	0.62	1.07	0.63	0.060	0.020	IP-5.00	150.00	0.0001	3.50	0.030
IP-7.00	2.09	1.00	0.59	0.060	0.020	IP-6.00	110.00	0.0001	3.50	0.030
IP-8.00	8.03	0.96	0.63	0.060	0.020	IP-7.00	320.00	0.0016	3.50	0.030
IP-9.00	12.36	1.70	0.22	0.060	0.020	IP-8.00	160.00	0.0001	3.50	0.030

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
Md-1.00	13.43	2.66	0.45	0.060	0.020	Hy-2.00	460.00	0.0011	0.00	0.040
Md-1.01	4.91	1.58	0.65	0.060	0.020	Md-1.00	370.00	0.0020	10.00	0.030
Md-10.00	3.43	1.70	0.11	0.060	0.020	Md-9.00	260.00	0.0019	3.50	0.030
Md-2.00	16.15	2.45	0.46	0.060	0.020	Md-1.00	480.00	0.0010	10.00	0.040
Md-3.00	9.41	2.72	0.30	0.060	0.020	Md-2.00	675.00	0.0011	10.00	0.040
Md-3.01	6.36	1.31	0.60	0.060	0.020	Md-3.00	475.00	0.0016	10.00	0.050
Md-4.00	6.30	2.63	0.47	0.060	0.020	Md-3.00	405.00	0.0006	10.00	0.040
Md-4.01	11.17	2.11	0.35	0.060	0.020	Md-4.00	90.00	0.0005	10.00	0.040
Md-4.02	7.64	3.21	0.32	0.060	0.020	Md-4.01	450.00	0.0001	10.00	0.040
Md-4.03	6.18	2.83	0.40	0.060	0.020	Md-4.02	365.00	0.0007	10.00	0.040
Md-4.04	9.16	3.19	0.11	0.060	0.020	Md-4.03	280.00	0.0009	10.00	0.040
Md-5.00	5.37	2.10	0.15	0.060	0.020	Md-4.00	415.00	0.0018	10.00	0.040
Md-5.01	1.89	1.32	0.59	0.060	0.020	Md-5.00	70.00	0.0029	3.50	0.030
Md-6.00	6.07	2.29	0.10	0.060	0.020	Md-5.00	340.00	0.0003	10.00	0.040
Md-6.01	3.23	2.30	0.00	0.060	0.020	Md-6.00	240.00	0.0021	10.00	0.040
Md-7.00	3.84	3.06	0.02	0.060	0.020	Md-6.00	270.00	0.0037	10.00	0.040
Md-8.00	6.65	2.03	0.06	0.060	0.020	Md-7.00	280.00	0.0009	10.00	0.040
Md-8.01	2.53	1.65	0.63	0.060	0.020	Md-8.00	0.00	0.0000	0.00	0.000
Md-8.02	8.65	1.84	0.66	0.060	0.020	Md-8.01	130.00	0.0019	3.50	0.030
Md-9.00	4.73	1.77	0.64	0.060	0.020	Md-8.00	90.00	0.0138	10.00	0.040
Mn-1.00	2.55	1.74	0.65	0.060	0.020	Md-10.00	145.00	0.0052	3.50	0.040
Mn-1.00.01	4.31	1.04	0.64	0.060	0.020	Mn-1.00	155.00	0.0048	3.50	0.030
Mn-1.01	3.06	1.62	0.64	0.060	0.020	Mn-1.00	230.00	0.0001	3.50	0.030
Mn-1.02	4.70	1.57	0.64	0.060	0.020	Mn-1.01	115.00	0.0022	3.50	0.030
Mn-1.03	3.99	1.47	0.38	0.060	0.020	Mn-1.02	185.00	0.0014	3.50	0.030
Mn-2.00	5.51	1.24	0.64	0.060	0.020	Mn-1.00	115.00	0.0043	3.50	0.030
Mn-2.01	3.76	1.21	0.54	0.060	0.020	Mn-2.00	280.00	0.0018	3.50	0.030
Mn-3.00	2.71	2.05	0.65	0.060	0.020	Mn-2.00	210.00	0.0012	3.50	0.030
Mn-3.00.01	3.95	0.77	0.64	0.060	0.020	Mn-3.00	185.00	0.0014	3.50	0.030
Mn-3.01	4.26	0.74	0.65	0.060	0.020	Mn-3.00	290.00	0.0003	3.50	0.030
Mn-4.00	4.83	1.31	0.60	0.060	0.020	Mn-3.00	60.00	0.0001	3.50	0.030
Mn-4.50	7.55	1.72	0.56	0.060	0.020	Mn-4.00	340.00	0.0007	3.50	0.030
Mn-5.00	6.63	1.57	0.54	0.060	0.020	Mn-4.50	225.00	0.0004	3.50	0.030
Mn-5.01	18.47	1.33	0.50	0.060	0.020	Mn-5.00	100.00	0.0025	3.50	0.030
Mn-5.02	11.54	1.69	0.12	0.060	0.020	Mn-5.01	390.00	0.0013	10.00	0.040
Mn-6.00	6.68	1.48	0.63	0.060	0.020	Mn-5.00	210.00	0.0012	3.50	0.030
Mn-7.00	20.13	1.35	0.45	0.060	0.020	Mn-6.00	225.00	0.0011	3.50	0.030
Pm-1.00	3.43	2.47	0.33	0.060	0.020	Md-2.00	0.00	0.0000	0.00	0.000
Pm-1.00.01	5.37	2.09	0.65	0.060	0.020	Pm-1.00	215.00	0.0058	10.00	0.050
Pm-1.00.02	3.66	2.11	0.65	0.060	0.020	Pm-1.00.01	330.00	0.0038	10.00	0.050
Pm-1.01	2.23	2.07	0.64	0.060	0.020	Pm-1.00	155.00	0.0048	3.50	0.030
Pm-1.01.01	8.07	0.97	0.65	0.060	0.020	Pm-1.01	150.00	0.0083	3.50	0.030
Pm-1.02	2.89	0.73	0.65	0.060	0.020	Pm-1.01	320.00	0.0063	3.50	0.030
Pm-1.03	11.02	0.79	0.65	0.060	0.020	Pm-1.02	125.00	0.0001	3.50	0.030
Pm-1.04	5.63	0.45	0.03	0.060	0.020	Pm-1.03	300.00	0.0017	3.50	0.030
Pm-10.00	0.85	0.80	0.47	0.060	0.020	Pm-9.00	230.00	0.0033	10.00	0.040
Pm-11.00	15.95	1.22	0.14	0.060	0.020	Pm-10.00	20.00	0.0001	3.50	0.030
Pm-2.00	3.86	3.77	0.65	0.060	0.020	Pm-1.00	215.00	0.0023	10.00	0.040
Pm-3.00	6.40	1.94	0.64	0.060	0.020	Pm-2.00	310.00	0.0008	10.00	0.040
Pm-4.00	6.20	1.54	0.62	0.060	0.020	Pm-3.00	135.00	0.0004	10.00	0.040
Pm-5.00	4.59	1.20	0.63	0.060	0.020	Pm-4.00	135.00	0.0003	10.00	0.040
Pm-5.01	1.41	2.10	0.59	0.060	0.020	Pm-5.00	0.00	0.0000	0.00	0.000
Pm-5.02	1.09	0.81	0.64	0.060	0.020	Pm-5.01	85.00	0.0264	10.00	0.040
Pm-6.00	5.04	2.22	0.58	0.060	0.020	Pm-5.00	125.00	0.0004	10.00	0.040
Pm-6.01	5.00	0.95	0.31	0.060	0.020	Pm-6.00	0.00	0.0000	0.00	0.000
Pm-7.00	1.03	1.66	0.67	0.060	0.020	Pm-6.00	240.00	0.0010	10.00	0.040
Pm-7.00.01	2.75	1.03	0.65	0.060	0.020	Pm-7.00	0.00	0.0000	0.00	0.000
Pm-7.01	4.47	0.97	0.63	0.060	0.020	Pm-7.00	0.00	0.0000	0.00	0.000
Pm-7.01.01	2.70	0.97	0.01	0.060	0.020	Pm-7.01	290.00	0.0026	3.50	0.030
Pm-7.02	2.52	0.76	0.57	0.060	0.020	Pm-7.01	220.00	0.0056	3.50	0.030
Pm-8.00	2.26	0.80	0.45	0.060	0.020	Pm-7.00	70.00	0.0002	3.50	0.030
Pm-9.00	6.65	0.76	0.00	0.060	0.020	Pm-8.00	70.00	0.0001	3.50	0.030
RE-1.00	2.98	2.85	0.39	0.060	0.020	WE-2.00	70.00	0.0050	10.00	0.040
RE-1.00.01	3.86	2.74	0.27	0.060	0.020	RE-1.00	255.00	0.0019	5.00	0.040
RE-1.00.02	2.13	5.63	0.64	0.060	0.020	Cy-9.00	200.00	0.0075	5.00	0.040
RE-1.01	3.45	1.46	0.41	0.060	0.020	RE-1.00	75.00	0.0060	10.00	0.040
RE-1.02	2.98	1.22	0.41	0.060	0.020	RE-1.01	190.00	0.0039	5.00	0.040
RE-10.00	3.13	1.00	0.49	0.060	0.020	RE-9.00	135.00	0.0037	3.50	0.030
RE-2.00	4.04	1.69	0.40	0.060	0.020	RE-1.00	80.00	0.0060	10.00	0.040
RE-3.00	4.63	1.30	0.10	0.060	0.020	RE-2.00	225.00	0.0014	3.50	0.030
RE-3.00.01	4.38	0.98	0.35	0.060	0.020	RE-3.00	215.00	0.0001	3.50	0.030
RE-3.01	6.36	0.79	0.03	0.060	0.020	RE-3.00	50.00	0.0050	3.50	0.030
RE-3.02	3.97	1.17	0.33	0.060	0.020	RE-3.01	250.00	0.0005	3.50	0.030
RE-4.00	4.40	2.26	0.41	0.060	0.020	RE-3.00	270.00	0.0001	3.50	0.030
RE-4.00.01	3.08	0.96	0.45	0.060	0.020	RE-4.00	360.00	0.0014	3.50	0.030
RE-4.01	6.44	1.06	0.55	0.060	0.020	RE-4.00	135.00	0.0005	3.50	0.030
RE-4.02	2.94	1.34	0.60	0.060	0.020	RE-4.01	245.00	0.0031	3.50	0.030
RE-5.00	2.04	0.96	0.60	0.060	0.020	RE-4.00	170.00	0.0029	3.50	0.030
RE-6.00	1.42	1.42	0.42	0.060	0.020	RE-5.00	150.00	0.0017	3.50	0.030
RE-6.01	2.10	0.87	0.63	0.060	0.020	RE-6.00	80.00	0.0031	3.50	0.030
RE-7.00	4.23	0.83	0.60	0.060	0.020	RE-6.00	215.00	0.0034	3.50	0.030
RE-8.00	5.21	1.04	0.60	0.060	0.020	RE-7.00	135.00	0.0019	3.50	0.030
RE-9.00	4.35	1.03	0.58	0.060	0.020	RE-8.00	120.00	0.0001	3.50	0.030

Sub-Catchment ID	Area (ha)	Slope (%)	Fraction Impervious	Pern (n*) Pervious	Pern (n*) Impervious	Downstream Node	Reach Length (m)	Reach Slope (m/m)	Reach Width (m)	Reach Manning's n
WE-1.00	12.78	3.16	0.80	0.060	0.020	Cy-9.00	300.00	0.0001	75.00	0.035
WE-1.01	3.95	2.38	0.76	0.060	0.020	WE-1.00	500.00	0.0090	3.50	0.030
WE-1.02	18.84	15.00	0.19	0.060	0.020	WE-1.01	160.00	0.0219	3.50	0.030
WE-1.03	19.25	15.00	0.28	0.060	0.020	WE-1.02	200.00	0.0025	3.50	0.030
WE-10.00	5.12	1.83	0.40	0.060	0.020	WE-9.00	550.00	0.0005	7.00	0.035
WE-11.00	4.05	1.98	0.85	0.060	0.020	WE-10.00	0.00	0.0000	0.00	0.000
WE-12.00	4.23	6.26	0.33	0.060	0.020	WE-11.00	0.00	0.0000	0.00	0.000
WE-12.01	3.17	4.31	0.67	0.060	0.020	WE-12.00	395.00	0.0001	5.00	0.035
WE-13.00	6.97	3.46	0.26	0.060	0.020	WE-12.00	355.00	0.0001	30.00	0.035
WE-13.00.01	10.58	1.83	0.67	0.060	0.020	WE-13.00	255.00	0.0029	5.00	0.040
WE-13.01	4.93	2.45	0.65	0.060	0.020	WE-13.00	345.00	0.0087	5.00	0.040
WE-13.02	2.54	1.81	0.70	0.060	0.020	WE-13.01	25.00	0.0005	3.50	0.030
WE-13.02.01	12.66	3.03	0.66	0.060	0.020	WE-13.02	0.00	0.0000	0.00	0.000
WE-13.03	3.08	3.18	0.63	0.060	0.020	WE-13.02	225.00	0.0167	3.50	0.030
WE-13.04	11.52	15.00	0.41	0.060	0.020	WE-13.03	320.00	0.0179	3.50	0.030
WE-14.00	14.79	3.25	0.17	0.060	0.020	WE-13.00	220.00	0.0001	50.00	0.035
WE-14.01	3.48	2.06	0.63	0.060	0.020	WE-14.00	490.00	0.0010	15.00	0.040
WE-14.01.01	3.00	1.17	0.71	0.060	0.020	WE-14.01	105.00	0.0167	3.50	0.030
WE-14.01.02	5.48	1.55	0.59	0.060	0.020	WE-14.01	215.00	0.0023	20.00	0.040
WE-14.02	4.89	1.41	0.72	0.060	0.020	WE-14.01	0.00	0.0000	0.00	0.000
WE-14.03	1.50	1.46	0.64	0.060	0.020	WE-14.02	350.00	0.0036	3.50	0.030
WE-14.04	11.06	2.64	0.58	0.060	0.020	WE-14.03	220.00	0.0125	3.50	0.030
WE-15.00	12.67	3.86	0.40	0.060	0.020	WE-14.00	450.00	0.0001	50.00	0.035
WE-15.01	1.85	1.41	0.65	0.060	0.020	WE-15.00	150.00	0.0100	10.00	0.040
WE-2.00	5.47	5.73	0.65	0.060	0.020	WE-1.00	280.00	0.0001	50.00	0.030
WE-2.01	3.25	2.12	0.76	0.060	0.020	WE-2.00	230.00	0.0054	3.50	0.030
WE-2.02	4.10	12.06	0.65	0.060	0.020	WE-2.01	180.00	0.0167	3.50	0.030
WE-3.00	5.97	4.58	0.46	0.060	0.020	WE-2.00	300.00	0.0001	50.00	0.030
WE-4.00	8.08	2.67	0.35	0.060	0.020	WE-3.00	340.00	0.0001	35.00	0.030
WE-4.00.01	1.75	2.57	0.63	0.060	0.020	WE-4.00	480.00	0.0083	3.50	0.030
WE-4.00.02	11.71	15.00	0.16	0.060	0.020	WE-4.00.01	0.00	0.0000	0.00	0.000
WE-4.01	0.46	2.81	0.40	0.060	0.020	WE-4.00	290.00	0.0034	3.50	0.030
WE-4.02	9.65	15.00	0.57	0.060	0.020	WE-4.01	70.00	0.0107	3.50	0.030
WE-5.00	5.29	3.35	0.18	0.060	0.020	WE-4.00	215.00	0.0001	25.00	0.030
WE-6.00	2.21	3.78	0.48	0.060	0.020	WE-5.00	125.00	0.0001	25.00	0.030
WE-6.01	3.19	2.16	0.65	0.060	0.020	WE-6.00	200.00	0.0088	3.50	0.030
WE-6.02	1.00	2.67	0.74	0.060	0.020	WE-6.01	140.00	0.0196	3.50	0.030
WE-6.02.01	4.65	3.76	0.15	0.060	0.020	WE-6.02	115.00	0.0087	3.50	0.030
WE-6.03	3.58	4.61	0.29	0.060	0.020	WE-6.02	95.00	0.0289	5.00	0.040
WE-6.04	7.83	15.00	0.09	0.060	0.020	WE-6.03	280.00	0.0161	15.00	0.040
WE-7.00	2.95	3.95	0.48	0.060	0.020	WE-6.00	95.00	0.0001	25.00	0.030
WE-8.00	1.86	4.95	0.59	0.060	0.020	WE-7.00	135.00	0.0001	25.00	0.030
WE-8.01	2.82	1.83	0.63	0.060	0.020	WE-8.00	80.00	0.0219	3.50	0.030
WE-8.02	2.64	2.21	0.58	0.060	0.020	WE-8.01	130.00	0.0173	3.50	0.030
WE-8.03	0.48	2.95	0.40	0.060	0.020	WE-8.02	120.00	0.0167	3.50	0.030
WE-8.04	2.14	2.51	0.73	0.060	0.020	WE-8.03	30.00	0.0250	3.50	0.030
WE-8.05	1.82	4.19	0.65	0.060	0.020	WE-8.04	130.00	0.0212	3.50	0.030
WE-8.06	1.47	4.77	0.65	0.060	0.020	WE-8.05	120.00	0.0458	3.50	0.030
WE-8.07	0.73	15.00	0.24	0.060	0.020	WE-8.06	96.00	0.0469	3.50	0.030
WE-8.08	0.67	8.24	0.63	0.060	0.020	WE-8.07	0.00	0.0000	0.00	0.000
WE-8.09	2.27	15.00	0.33	0.060	0.020	WE-8.08	105.00	0.0619	3.50	0.030
WE-9.00	16.40	2.01	0.10	0.060	0.020	WE-8.00	205.00	0.0001	25.00	0.035
WE-9.01	4.04	2.24	0.73	0.060	0.020	WE-9.00	580.00	0.0112	5.00	0.040
WE-9.01.01	0.59	3.33	0.50	0.060	0.020	WE-9.01	0.00	0.0000	0.00	0.000
WE-9.02	4.52	3.29	0.66	0.060	0.020	WE-9.01	150.00	0.0083	3.50	0.030
WE-9.03	3.64	6.23	0.65	0.060	0.020	WE-9.02	175.00	0.0171	5.00	0.040
WE-9.04	35.36	15.00	0.04	0.060	0.020	WE-9.03	125.00	0.0340	5.00	0.040

Appendix B – Culvert and Bridge Details

Culvert Details

Branch	Chainage	ID	Upstream IL (m AHD)	Downstream IL (m AHD)	Length (m)	Manning's n	Number	Geometry	Diameter (m)	Width (m)	Height (m)
LakesOverflow	10113	Ingham Road	0.655	0.656	36.056	0.015	2	Circular	1.2		
HermitDrain	10960	Bayswater Road HP	-0.142	-0.237	31.7	0.015	1	Rectangular		2.15	1.51
HermitDrain	10541	CharTowers 1	0.995	0.762	40	0.015	1	Rectangular		2.13	1.54
PimlicoDrain	10622	Townsend1	2.376	2.404	20.687	0.015	1	Rectangular		1.52	1.2
PimlicoDrain	10486	Kings Road1	2.553	2.495	34.521	0.015	2	Circular	1.2		
PimlicoDrain	10351	CheyneSt	2.712	2.558	19.589	0.015	2	Circular	1.19		
PimlicoDrain	10226	Park Street	2.807	2.728	20.001	0.015	2	Circular	1.2		
RossleaDrain	10603	Lindsay St	2.077	1.939	33.722	0.015	2	Rectangular		2.46	0.74
RossleaDrain	10443	Hodel Street	2.367	2.196	33.182	0.015	2	Rectangular		2.44	0.66
RossleaDrain	10117	Bowen Road	2.754	2.665	41.598	0.015	1	Rectangular		2.74	1.51
CurrajongDrain	10284.5	Hugh Street CJ	2.163	2.061	29.441	0.015	7	Circular	1.22		
LakesOverflow	10762.5	Hugh Street	2.45	2.4	30.67	0.013	4	Circular	1.05		
WoolcockStreet	10248.5	Service Road In	3.1	2.95	17.08	0.013	5	Circular	1.2		
WoolcockStreet	10179.5	Service Road Out	3	2.9	19.42	0.015	5	Circular	1.2		
DalrympleRdDrainN	11884.5	Under Dalrymple	2.706	2.548	38	0.015	2	Rectangular		2.15	1.55
DarympleRdDrainS1	10600.5	6555C	4.05	3.95	14.64	0.015	3	Circular	0.6		
DarympleRdDrainS1	10255.5435	6555C	4.99	4.9	15.73	0.015	2	Circular	0.45		
DalrympleRdDrainN	11535	Citiworks Access	4.458	4.421	14.549	0.015	5	Circular	0.9		
DalrympleRdDrainN	11095	Bayswater Road	5.575	5.341	56.426	0.015	3	Rectangular		1.22	0.61
DalrympleRdDrainN	10798	Pilkington Street	6.054	5.999	27.364	0.015	7	Circular	0.6		
DalrympleRdDrainS2	11086	Warrina Carpark	5.4	5.35	14.63	0.015	2	Circular	0.675		
DalrympleRdDrainS2	10726	Vincent Access	5.9	5.85	16	0.015	3	Circular	0.45		
DalrympleRdDrainS2	10679	Power Tower	6.05	6	14.7	0.015	3	Circular	0.45		
DalrympleRdDrainS2	10376	O'Keefe South	6.8	6.75	14.5	0.013	2	Circular	0.6		
DalrympleRdDrainN	10388	O Keefe Ct CI006_2	6.764	6.75	14.844	0.015	4	Circular	0.6		
DalrympleRdDrainS2	10251	Power Tower 2 6555C	6.95	6.9	14.5	0.015	2	Circular	0.375		
NorthKirwanDrain	10070	Bamford Lane	10	9.5	22.2	0.015	1	Rectangular		0.6	0.45
NorthKirwanDrain	11050	Dalrymple Road	6.9	6.7	66.1	0.013	5	Circular	1.2		
RossCk_Boundary	16	Boundary St	-0.096	-0.306	22.135	0.015	3	Circular	1.2		
RossCk_Queens1	15.5	Queens RD	0.386	0.377	30	0.015	2	Circular	1.2		
Woolcock_Charters1	22.5	WoolChart1a	-1.2	-1.255	36.3	0.015	2	Rectangular		3	2.7
Woolcock_Charters2	24.5	WoolChar2	-1.25	-1.32	32	0.015	1	Rectangular		9.2	4.4
Woolcock_Sturt1	35	WoolSturt1a	-0.469	-0.598	57.9	0.015	2	Rectangular		3	2.7
Woolcock_Sturt2	26	WoolSturt2	-1.05	-1.2	28	0.018	1	Rectangular		9.1	4.5
Mindham_Woolcock	34.5	Mindh_Woolc	-0.795	-0.852	48.878	0.015	5	Rectangular		2.15	2.1
Woolcock_Kings	24.5	Kings Road Culvert	0.337	0.361	35.558	0.015	2	Rectangular		3.65	2.4
Lakes_Woolcock1	30	Lakes1 Woolcock 2	-0.5	-0.5	43.688	0.015	2	Rectangular		3	2.7
Lakes_Woolcock2	23.5	Lakes1 Woolcock 2	0.769	0.662	39.772	0.015	5	Rectangular		2.13	1.49
Lakes_Woolcock3	54.5	Lakes1 Woolc 3	-1.5	-1.5	102.5	0.014	1	Circular	1.5		
Lakes_Bayswater	17.5	Bayswater Road - Lakes	1.83	1.61	24.519	0.015	3	Rectangular		3.65	1.16
Mindham_Bayswater	23.5	Mind_Bays1	0.6	0.5	38.4	0.015	3	Rectangular		2.4	1.4

Branch	Chainage	ID	Upstream IL (m AHD)	Downstream IL (m AHD)	Length (m)	Manning's n	Number	Geometry	Diameter (m)	Width (m)	Height (m)
Mindham_BaysTCE	14	Basy TCE	1.526	1.316	20.523	0.015	7	Circular	1.22		
Mindham_Townsend	14.5	Townsend Mindham	2.387	2.386	20.898	0.015	20	Circular	0.89		
Mundingburra_Balls	19.5	Balls Lane	3.7	3.6	21	0.015	1	Rectangular		1.2	0.6
Mindham_Balls	17	Balls Lane 1a	3.234	3.209	22.47	0.014	8	Circular	0.74		
Aitkenvale_Gulliver	18.5	Gulliver Street	3.44	3.42	28.8	0.015	4	Rectangular		3.6	1.5
Captains_Dearness	12.5743893		1.785	1.802	19.621	0.015	7	Circular	0.9		
Captains_JMB	15	Old Common Road	-0.174	-0.197	14.719	0.015	6	Rectangular		3.65	2.44
Heatley_Dalrymple	19.5	Dalrymple Road	6.568	6.421	28.842	0.015	2	Rectangular		2.45	0.92
Louisa Banfield	16.5	Banfiled Drive 1	5.796	5.42	22.037	0.015	2	Rectangular		2.78	1.8
Louisa_Dalrymple	16	Dalrymple Road	8.1	8	21.69	0.015	2	Circular	1.35		
GreenwoodA_Burnda	12.5	Burnda Street	8.838	8.781	17.25	0.015	3	Rectangular		3.75	2.6
Woolcock_Charters1	22.5	WoolChar1b	-1.2	-1.255	36.3	0.015	1	Rectangular		3.6	2.7
Woolcock_Sturt1	35	WoolSturt1b	-0.469	-0.598	57.1	0.018	1	Rectangular		3.6	2.8
HermitDrain	10541	CharTowers2	1.902	1.656	40	0.015	6	Rectangular		1.21	0.6
Mindham_Bayswater	23.5	MindBays2	0.536	0.373	35.763	0.015	4	Circular	1.68		
PimlicoDrain	10622	Townsend2	2.396	2.422	20.713	0.015	2	Circular	1.19		
PimlicoDrain	10486	Kings Road2	2.553	2.495	34.521	0.013	1	Circular	1.05		
Mundingburra_Balls	19.5	Balls Lane 2	3.7	3.6	21	0.015	1	Rectangular		2.4	0.6
Mindham_Balls	17	Balls Lane 1b	3.284	3.193	23.279	0.015	5	Rectangular		1.84	0.77
Aitkenvale_Armit	22.5	Arimt Street 1	4.141	4.136	12.251	0.015	1	Circular	1.2		
Aitkenvale_Armit	22.5	Armit Street 2	4.107	4.028	14.645	0.015	3	Circular	1.52		
Aitkenvale_Armit	22.5	Armit Street 3	3.992	3.934	13.773	0.015	2	Circular	1.2		
Louisa Banfield	16.5	Banfield Drive 2	5.796	5.42	22.037	0.015	1	Rectangular		3.6	2.04
WEnd_Stagpole	6.5	West End Gully	10.1	10	12	0.015	1	Rectangular		3.6	2.7

Bridge Details

Branch	Chainage	ID	Soffit (m AHD)	Deck (m AHD)	Width (m)
RossCk_Denham	15	Denham Street	4.8	6.8	20.5
RossCk_Victoria	12.5	Victoria Bridge	4.5	6	11.5
RossCk_Aband1	9	Abandoned Rail 1	3.7	4.1	4
RossCk_Aband2	5.5	Abandoned Rail 2	2.9	3.4	6
RossCk_Rail	15	Rail Station	2.263	3.863	21.9
RossCk_Race	15	V8 Supercar	2.5	3.5	16.5
AbbotSt	71.5	Existing Road Abbot	3	4	11
AbbotSt	41	Pedestrian Bridge Abbot	2.5	3.2	6.7
AbbotSt	15.5	Rail Bridge Abbot	2.94	3.235	4
BowenRd	25	Bowen Road	5.5	6.4	10.4
NathanStreet	28.5	Nathan Street	11.5	13.5	34
TPAR	25	TPAR	9.5	10.7	15
Goondi_Samphire	10.5	Samphire Drive	2.1	2.75	15
RossCk_Lowths	14.5	Lowths Bridge	3	3.9	14.5

Appendix C – Underground Drainage Details

(Refer to Volume 2 also)

Node Details

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0093N3U	Manhole/Inlet	6.15	8.20	1.50
0093A5U	Manhole/Inlet	6.93	9.20	1.80
0093N2U	Manhole/Inlet	5.94	8.20	1.50
0093A03U	Manhole/Inlet	5.82	8.00	1.20
0093N4U	Manhole/Inlet	6.47	8.80	1.50
0177A6U	Manhole/Inlet	3.80	5.77	0.60
0123A10U	Manhole/Inlet	5.80	7.60	1.05
0123A19U	Manhole/Inlet	19.80	21.00	1.05
0123A21U	Manhole/Inlet	23.50	25.15	0.75
0123A18U	Manhole/Inlet	19.70	20.90	2.00
0270A21U	Manhole/Inlet	9.03	12.35	1.58
0270AL1U	Manhole/Inlet	5.64	8.88	1.58
0113A4U	Manhole/Inlet	4.42	6.10	0.75
0270A13U	Manhole/Inlet	4.41	7.56	1.58
0205D3U	Manhole/Inlet	0.00	3.04	1.65
0242A3U	Manhole/Inlet	-0.29	2.77	1.20
0029A3U	Manhole/Inlet	-0.25	2.65	1.20
0029AC2U	Manhole/Inlet	1.38	2.60	1.20
0029AC6U	Manhole/Inlet	1.51	2.65	1.35
0243A11U	Manhole/Inlet	0.41	3.01	1.35
0243A14U	Manhole/Inlet	1.13	2.79	0.90
0023A15U	Manhole/Inlet	9.50	13.15	1.20
0023AQ1U	Manhole/Inlet	11.26	13.07	0.90
0011B3U	Manhole/Inlet	12.59	15.06	0.90
0264A11U	Manhole/Inlet	1.17	2.47	1.05
0264A8U	Manhole/Inlet	1.06	2.52	1.05
0264A6U	Manhole/Inlet	1.00	2.57	1.05
0264A9U	Manhole/Inlet	1.11	2.51	1.05
0264A10U	Manhole/Inlet	1.15	2.49	1.05
0264A12U	Manhole/Inlet	1.20	2.44	1.05
0243A4U	Manhole/Inlet	-0.11	3.28	1.50
0243A8U	Manhole/Inlet	-0.03	3.41	1.65
0243A6U	Manhole/Inlet	-0.06	2.96	1.35
0029AA3U	Manhole/Inlet	1.02	2.45	0.60
0290A17U	Manhole/Inlet	0.36	3.31	1.35
0290A18U	Manhole/Inlet	0.36	3.44	1.35
0290A12U	Manhole/Inlet	0.02	2.47	1.50
0290A13U	Manhole/Inlet	0.05	2.47	1.50
0290A14U	Manhole/Inlet	0.07	2.64	1.50
0290A15U	Manhole/Inlet	0.11	3.10	1.50
0093A2U	Manhole/Inlet	5.47	7.13	2.40
0264K2U	Manhole/Inlet	0.41	2.62	0.90
0290AD1U	Manhole/Inlet	-0.30	2.01	1.35
0061A4U	Manhole/Inlet	6.81	8.77	1.05
0203A6U	Manhole/Inlet	1.38	2.72	0.90
0203A8U	Manhole/Inlet	1.46	2.16	0.90
0203A9U	Manhole/Inlet	1.55	2.24	0.90
0203A7U	Manhole/Inlet	1.38	2.49	0.90
0290A06U	Manhole/Inlet	-0.44	2.27	1.80
0290A6U	Manhole/Inlet	-0.41	2.27	1.80
0290A7U	Manhole/Inlet	-0.38	2.38	1.80
0290A8U	Manhole/Inlet	-0.36	2.32	1.80

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0290A3U	Manhole/Inlet	-0.72	2.22	1.80
0290A4U	Manhole/Inlet	-0.63	2.16	1.80
0249A6U	Manhole/Inlet	0.11	4.04	1.20
0249A8U	Manhole/Inlet	0.55	2.62	1.20
0270A19U	Manhole/Inlet	7.91	9.86	1.50
0248B2U	Manhole/Inlet	4.62	6.23	0.90
0248B3U	Manhole/Inlet	4.63	6.25	0.90
0248B4U	Manhole/Inlet	4.75	6.13	0.90
0248B5U	Manhole/Inlet	4.77	6.54	0.90
0251DC1U	Manhole/Inlet	3.98	5.00	0.60
0251DC3U	Manhole/Inlet	4.17	5.25	0.60
0155A6U	Manhole/Inlet	7.72	11.75	1.65
0155A4U	Manhole/Inlet	7.48	11.66	1.65
0019AJ6U	Manhole/Inlet	4.18	5.66	1.05
0019A11U	Manhole/Inlet	4.17	6.40	1.20
0019AJ2U	Manhole/Inlet	3.68	6.10	1.20
0019AJ4U	Manhole/Inlet	4.13	5.76	1.20
0307A10U	Manhole/Inlet	3.54	6.65	1.05
0051B9U	Manhole/Inlet	7.61	9.44	0.90
0155ADB1U	Manhole/Inlet	9.48	11.36	0.90
0155AN11U	Manhole/Inlet	9.85	11.61	0.90
0155AN9U	Manhole/Inlet	9.77	11.66	0.90
0216A6U	Manhole/Inlet	4.84	7.46	1.20
0176A14U	Manhole/Inlet	4.85	7.00	1.50
0176A16U	Manhole/Inlet	5.09	6.97	1.35
0372A13U	Manhole/Inlet	9.94	11.46	0.90
0372A14U	Manhole/Inlet	9.96	11.46	0.90
0372A15U	Manhole/Inlet	10.12	11.83	0.90
0202A8U	Manhole/Inlet	4.88	7.50	1.35
0202A10U	Manhole/Inlet	4.92	7.66	1.20
0202A11U	Manhole/Inlet	4.96	7.46	1.20
0202A12U	Manhole/Inlet	5.12	7.56	1.20
0202A13U	Manhole/Inlet	5.15	7.60	1.05
0202A16U	Manhole/Inlet	5.42	7.55	1.05
0202A17U	Manhole/Inlet	5.48	7.64	0.90
0068A4U	Manhole/Inlet	5.24	7.60	1.20
0237AB3U	Manhole/Inlet	2.48	4.41	1.20
0074M04U	Manhole/Inlet	2.84	4.32	0.90
0237A6U	Manhole/Inlet	2.98	5.35	3.00
0237AB8U	Manhole/Inlet	2.70	5.16	1.20
0209BB11U	Manhole/Inlet	6.80	8.38	0.90
0237AB5U	Manhole/Inlet	2.56	4.66	1.20
0140A11U	Manhole/Inlet	2.63	4.57	1.05
0140A04U	Manhole/Inlet	2.24	3.54	1.05
0020A2U	Manhole/Inlet	1.63	3.11	1.20
0144A4U	Manhole/Inlet	1.74	3.13	1.05
0144A5U	Manhole/Inlet	1.79	3.41	1.05
0040AE1U	Manhole/Inlet	1.20	2.53	1.50
0242J2U	Manhole/Inlet	2.34	3.87	1.20
0074C23U	Manhole/Inlet	3.05	4.15	0.90
0282A3U	Manhole/Inlet	2.37	4.99	1.20
0209D1U	Manhole/Inlet	4.89	8.90	2.70
0164A45U	Manhole/Inlet	4.29	6.53	0.90
0046A1Da	Outlet	-0.48	1.40	1.05

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0290A1U	Manhole/Inlet	-0.96	2.50	3.60
0026A1D	Outlet	-0.43	0.80	0.75
0029AC10U	Manhole/Inlet	2.00	2.70	2.00
0070A5U	Manhole/Inlet	7.45	9.24	1.20
0272A10U	Manhole/Inlet	3.64	4.85	0.90
0271B2U	Manhole/Inlet	0.80	2.86	0.45
0155A015U	Manhole/Inlet	8.69	11.66	1.65
0059A8U	Manhole/Inlet	0.18	2.50	0.90
0019A9U	Manhole/Inlet	3.43	6.34	1.20
0272A02U	Manhole/Inlet	1.11	2.70	0.90
0245A2U	Manhole/Inlet	1.02	2.92	1.05
0245A5U	Manhole/Inlet	1.25	2.58	0.90
0282A7U	Manhole/Inlet	2.41	3.83	0.90
Stockland 2/1	Manhole/Inlet	9.05	10.55	1.00
0227AHE1U	Manhole/Inlet	7.51	9.59	0.90
0227AH02U	Manhole/Inlet	7.11	9.21	1.05
0222A4U	Manhole/Inlet	2.10	4.65	1.20
0222A5U	Manhole/Inlet	2.12	4.66	1.20
0227AH1U	Manhole/Inlet	6.96	9.41	1.05
0216A16U	Manhole/Inlet	5.90	7.23	0.90
0227A3U	Manhole/Inlet	5.57	8.06	1.50
0125B2U	Manhole/Inlet	2.99	3.64	1.20
0165A1Da	Outlet	0.35	3.00	1.40
0089A1Da	Outlet	2.10	4.12	1.35
0074C10U	Manhole/Inlet	1.81	3.90	1.05
0176A9U	Manhole/Inlet	4.69	7.39	1.50
0176A010U	Manhole/Inlet	4.71	7.27	1.50
0355D3U	Manhole/Inlet	5.00	7.62	1.05
0355D4U	Manhole/Inlet	5.25	7.77	1.05
0355D5U	Manhole/Inlet	5.48	7.88	1.05
0311A3U	Manhole/Inlet	-0.12	3.34	0.90
0139A2U	Manhole/Inlet	1.07	3.05	0.90
0050A07U	Manhole/Inlet	2.38	3.63	0.90
0050A5U	Manhole/Inlet	2.34	4.03	0.90
0301A05U	Manhole/Inlet	3.58	5.60	1.50
0301A005U	Manhole/Inlet	3.59	5.60	1.50
0176A6U	Manhole/Inlet	4.29	8.07	1.80
0232A38U	Manhole/Inlet	3.83	4.96	0.90
0209B43U	Manhole/Inlet	8.76	10.80	1.05
0155AN12U	Manhole/Inlet	9.96	11.68	0.90
0209B58U	Manhole/Inlet	10.09	11.60	0.90
0209D2U	Manhole/Inlet	4.99	8.98	2.70
0209B7U	Manhole/Inlet	5.63	9.40	1.50
0132A1Da	Outlet	-0.43	4.83	
0209D8U	Manhole/Inlet	5.47	9.20	2.70
0209D3U	Manhole/Inlet	5.01	9.12	2.70
0209D4U	Manhole/Inlet	5.03	9.37	2.70
0209D6U	Manhole/Inlet	5.07	9.22	2.70
0230A5U	Manhole/Inlet	4.54	6.87	0.90
0230A6U	Manhole/Inlet	4.57	6.87	0.90
0155AN7U	Manhole/Inlet	9.61	11.81	0.90
0209B25U	Manhole/Inlet	7.41	9.22	1.05
0138A22U	Manhole/Inlet	20.65	22.40	0.90
0176A12U	Manhole/Inlet	4.82	7.10	1.50

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0176A13U	Manhole/Inlet	4.84	7.03	1.50
0164A7U	Manhole/Inlet	9.85	13.06	0.75
0164A5U	Manhole/Inlet	6.17	8.01	0.90
0164A6U	Manhole/Inlet	6.73	8.35	0.75
0164A8U	Manhole/Inlet	10.02	13.67	0.90
0270A11U	Manhole/Inlet	3.29	6.12	1.65
0270A10U	Manhole/Inlet	3.15	5.99	1.65
0270A7U	Manhole/Inlet	2.46	5.57	1.65
0270A5U	Manhole/Inlet	1.20	4.22	1.65
0270A3U	Manhole/Inlet	1.16	4.20	1.65
0270A4U	Manhole/Inlet	1.18	4.19	1.65
0270A9U	Manhole/Inlet	2.95	5.93	1.65
0270A8U	Manhole/Inlet	2.83	5.88	1.65
0071A7U	Manhole/Inlet	3.76	5.95	0.90
0071A8U	Manhole/Inlet	3.77	5.49	0.90
0071A9U	Manhole/Inlet	3.79	5.42	0.90
0009A10U	Manhole/Inlet	6.82	9.62	0.75
0009A8U	Manhole/Inlet	6.04	9.50	0.75
0088A15U	Manhole/Inlet	2.33	4.22	0.90
0237A013U	Manhole/Inlet	3.91	5.95	0.90
0074BA1U	Manhole/Inlet	2.33	4.27	0.90
0123A13U	Manhole/Inlet	10.10	11.40	1.05
0123A16U	Manhole/Inlet	15.00	16.20	1.05
0123A9U	Manhole/Inlet	5.67	7.40	1.20
0123A5U	Manhole/Inlet	1.50	2.80	2.00
0071A5U	Outlet	3.53	4.50	0.90
0078A7U	Manhole/Inlet	4.47	7.30	1.05
0078A6U	Manhole/Inlet	4.44	7.30	1.05
0115E2U	Manhole/Inlet	-0.73	3.49	0.60
0078A5U	Manhole/Inlet	3.89	6.55	1.05
0115HB2U	Manhole/Inlet	1.61	3.60	1.05
0209B19U	Manhole/Inlet	6.94	9.70	1.20
0209B27U	Manhole/Inlet	7.51	9.46	1.05
0145AB1U	Manhole/Inlet	5.12	8.09	1.50
0209BK1U	Manhole/Inlet	6.12	9.30	1.50
0029A0D	Outlet	-0.60	2.00	1.20
0209BT2U	Manhole/Inlet	7.61	8.77	0.75
0209BKA1U	Manhole/Inlet	6.09	9.30	1.50
0209NC35U	Manhole/Inlet	6.70	9.39	0.90
0209B015U	Manhole/Inlet	6.69	9.40	1.20
0209B15U	Manhole/Inlet	6.69	9.40	1.20
0209B28U	Manhole/Inlet	7.60	9.74	1.05
0209B032U	Manhole/Inlet	7.88	10.20	1.05
0074G9U	Manhole/Inlet	3.50	5.90	1.05
0155ADB2U	Manhole/Inlet	9.30	11.29	0.90
0155ADB3U	Manhole/Inlet	9.25	11.15	0.90
0209B18U	Manhole/Inlet	6.88	9.60	1.20
0209B31U	Manhole/Inlet	7.88	10.20	1.05
0050AJ3U	Manhole/Inlet	2.92	4.53	0.90
0282AB1U	Manhole/Inlet	2.50	3.68	0.60
0050AJ2U	Manhole/Inlet	2.70	4.38	0.90
0050AJF1U	Manhole/Inlet	3.00	4.31	0.90
0050A9U	Manhole/Inlet	2.42	3.71	0.90
0237AK03U	Manhole/Inlet	3.89	5.27	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0237AKB2U	Manhole/Inlet	3.73	5.45	1.20
0237A9U	Manhole/Inlet	3.25	5.58	2.10
0177A4U	Manhole/Inlet	2.90	4.65	0.90
0305AA8U	Manhole/Inlet	4.43	5.69	0.90
0282AA1U	Manhole/Inlet	2.68	4.19	1.20
0070A7U	Manhole/Inlet	7.47	9.24	1.20
0070B3U	Manhole/Inlet	7.55	9.60	1.05
0123A6U	Manhole/Inlet	3.16	4.60	2.00
0044A2U	Manhole/Inlet	1.56	3.65	1.20
0044A1D	Outlet	1.50	3.00	1.20
0209BT1U	Manhole/Inlet	7.22	9.28	0.75
0123A7U	Manhole/Inlet	3.51	4.80	2.00
0123A8U	Manhole/Inlet	5.17	6.80	1.20
0230A2U	Manhole/Inlet	4.44	7.25	0.90
0140A002U	Manhole/Inlet	2.19	4.20	0.90
0140A02U	Manhole/Inlet	2.18	4.14	0.90
0209BKB6U	Manhole/Inlet	6.86	9.60	2.00
0209BKB7U	Manhole/Inlet	7.08	9.45	1.50
0177A3U	Manhole/Inlet	2.51	3.70	0.90
0372AHB2U	Manhole/Inlet	9.26	11.00	1.05
0372AHB4U	Manhole/Inlet	9.37	10.80	1.05
0372AHB5U	Manhole/Inlet	9.37	10.90	1.05
0209B8U	Manhole/Inlet	5.81	9.80	1.50
0209B10U	Manhole/Inlet	7.09	9.50	1.50
0718A16U	Manhole/Inlet	7.74	10.58	3.20
0206A003U	Manhole/Inlet	0.58	4.00	1.65
0206A2U	Manhole/Inlet	0.23	4.00	1.20
0206A03U	Manhole/Inlet	0.36	4.00	1.65
0206A002U	Manhole/Inlet	0.17	3.60	1.05
0227A6U	Manhole/Inlet	6.08	8.71	1.20
0227A09U	Manhole/Inlet	6.96	9.70	1.20
0165A3U	Manhole/Inlet	1.91	3.80	3.00
0165A5U	Manhole/Inlet	3.57	4.50	3.00
0209B36U	Manhole/Inlet	8.06	10.20	1.20
0209B55U	Manhole/Inlet	9.90	11.81	0.90
0209BL2U	Manhole/Inlet	6.89	9.77	1.05
0270A27U	Manhole/Inlet	13.88	15.95	1.80
0270A03U	Manhole/Inlet	0.20	2.84	1.80
0270A24U	Manhole/Inlet	11.61	15.40	1.50
0270A25U	Manhole/Inlet	12.53	14.08	1.50
0270A22U	Manhole/Inlet	10.50	12.70	1.58
0270A23U	Manhole/Inlet	10.82	14.74	1.50
0270A26U	Manhole/Inlet	13.14	15.71	1.80
0051B5U	Manhole/Inlet	7.15	8.74	1.20
0020A04U	Manhole/Inlet	1.69	3.25	1.20
0209B016U	Manhole/Inlet	8.01	9.40	1.20
0209BKB4U	Manhole/Inlet	6.55	9.19	1.50
0209BV1U	Manhole/Inlet	8.00	9.50	1.05
0089A03U	Manhole/Inlet	2.07	5.34	1.20
0138A17U	Manhole/Inlet	13.06	15.22	1.20
0138A16U	Manhole/Inlet	12.98	15.22	1.20
0009A05U	Manhole/Inlet	2.71	5.25	0.90
0165B4U	Manhole/Inlet	7.85	9.42	1.43
0165B8U	Manhole/Inlet	9.80	12.80	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0165B5U	Manhole/Inlet	8.81	10.33	1.43
0165B7U	Manhole/Inlet	9.78	12.74	0.90
0134A10U	Manhole/Inlet	7.46	9.80	2.85
0134A5U	Manhole/Inlet	2.56	5.40	1.35
0134A16U	Manhole/Inlet	11.24	12.80	0.90
0123A4U	Manhole/Inlet	1.15	2.60	2.00
0203A5U	Manhole/Inlet	1.36	2.92	0.90
0305A8U	Manhole/Inlet	4.20	5.70	0.90
0290A11U	Manhole/Inlet	-0.01	2.51	1.50
0372A11U	Manhole/Inlet	9.77	11.54	0.90
0372A10U	Manhole/Inlet	9.70	11.23	0.90
0372A9U	Manhole/Inlet	9.39	10.96	0.90
0250A2U	Manhole/Inlet	1.24	3.31	1.35
0203AH1U	Manhole/Inlet	1.35	2.71	0.90
0270A28U	Manhole/Inlet	15.59	17.15	1.80
0270A33U	Manhole/Inlet	20.01	21.44	1.80
0290A21U	Manhole/Inlet	0.77	3.75	1.20
0132A2U	Manhole/Inlet	-0.43	4.83	1.35
0140A6U	Manhole/Inlet	2.45	4.04	1.05
0140A7U	Manhole/Inlet	2.47	4.04	1.05
0140A9U	Manhole/Inlet	2.58	4.70	1.05
0209BB8U	Manhole/Inlet	6.52	8.64	1.05
0145AB3U	Manhole/Inlet	6.12	8.48	1.50
0176AG1U	Manhole/Inlet	5.39	7.33	0.90
0138A4U	Manhole/Inlet	6.90	9.81	1.35
0061A2U	Manhole/Inlet	6.29	9.12	1.05
0138A3U	Manhole/Inlet	6.22	9.03	1.35
0138A2U	Manhole/Inlet	5.88	9.07	1.35
0138A13U	Manhole/Inlet	11.82	14.01	1.20
0138A12U	Manhole/Inlet	11.09	13.42	1.20
0138A14U	Manhole/Inlet	11.98	14.24	1.20
0011A3U	Manhole/Inlet	12.68	15.08	0.90
0011B4U	Manhole/Inlet	12.64	15.23	0.90
0051B10U	Manhole/Inlet	7.61	9.44	0.90
0166A3U	Manhole/Inlet	7.13	11.58	1.65
0227AT13U	Manhole/Inlet	8.49	10.77	1.05
0166A5U	Manhole/Inlet	7.25	11.51	1.65
0166A7U	Manhole/Inlet	7.60	10.97	1.50
0166A8U	Manhole/Inlet	7.79	10.78	1.50
0237AB010U	Manhole/Inlet	3.08	5.08	1.20
0166AMA3U	Manhole/Inlet	8.80	11.02	1.05
0166AMA2U	Manhole/Inlet	8.76	10.99	1.20
0166AM1U	Manhole/Inlet	8.35	10.76	1.20
0166AMA1U	Manhole/Inlet	8.60	11.07	1.20
0166A10U	Manhole/Inlet	7.99	11.00	1.50
0166A11U	Manhole/Inlet	8.02	10.86	1.50
0051B12U	Manhole/Inlet	7.81	9.66	0.90
0068A8U	Manhole/Inlet	5.98	7.42	0.90
0068A7U	Manhole/Inlet	5.75	7.91	1.05
0051B8U	Manhole/Inlet	7.30	8.97	1.05
0089A4U	Manhole/Inlet	2.60	5.28	1.20
0019A13U	Manhole/Inlet	4.20	6.24	1.20
0019A12U	Manhole/Inlet	4.19	6.32	1.20
0305A4U	Manhole/Inlet	1.11	2.70	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0155AA4U	Manhole/Inlet	7.47	11.46	1.20
0166AMA4U	Manhole/Inlet	9.60	11.03	0.90
0227AZY4U	Manhole/Inlet	8.85	10.23	0.90
0134A17U	Manhole/Inlet	11.41	13.00	0.90
0134A18U	Manhole/Inlet	12.09	13.46	0.90
0074M3U	Manhole/Inlet	2.55	4.83	0.90
0074M02U	Manhole/Inlet	2.50	4.24	1.20
0007B7U	Manhole/Inlet	7.57	10.60	1.05
0007B8U	Manhole/Inlet	7.66	10.69	1.05
0007B9U	Manhole/Inlet	7.76	10.84	1.05
0007B4U	Manhole/Inlet	7.31	10.20	1.05
0007B3U	Manhole/Inlet	7.22	9.80	1.05
0007B2U	Manhole/Inlet	7.13	9.60	1.05
0372AHB6U	Manhole/Inlet	9.37	10.92	1.05
0007B13U	Manhole/Inlet	8.13	10.80	1.05
0007B14U	Manhole/Inlet	8.71	10.60	0.90
0007B10U	Manhole/Inlet	7.86	11.10	1.05
0007B11U	Manhole/Inlet	7.99	10.60	1.05
0007B12U	Manhole/Inlet	8.01	10.60	1.05
0270A35U	Manhole/Inlet	23.00	29.50	1.20
0019A15U	Manhole/Inlet	4.89	6.52	0.90
0019A14U	Manhole/Inlet	4.76	6.62	1.20
0019A16U	Manhole/Inlet	5.04	6.21	0.90
0209B38U	Manhole/Inlet	8.28	10.56	1.20
0209BL8U	Manhole/Inlet	8.38	10.49	0.90
0209BL6U	Manhole/Inlet	7.66	10.00	1.05
0209BL5U	Manhole/Inlet	7.64	9.80	1.05
0209BG5U	Manhole/Inlet	6.77	8.40	0.90
0209BG4U	Manhole/Inlet	6.66	8.66	0.90
0164A4U	Manhole/Inlet	2.90	4.10	0.90
0164A3U	Manhole/Inlet	2.07	3.90	1.80
0059A2U	Manhole/Inlet	-0.04	4.42	1.05
0239D2U	Manhole/Inlet	0.40	2.31	1.05
0009A4U	Manhole/Inlet	1.94	4.62	1.20
0026A2U	Manhole/Inlet	0.50	3.70	0.90
0059A10U	Manhole/Inlet	0.92	3.05	0.90
0059A9U	Manhole/Inlet	0.35	2.82	0.90
0019AJ1U	Manhole/Inlet	3.58	6.20	1.35
0205D4U	Manhole/Inlet	0.11	2.24	1.65
0078A2U	Manhole/Inlet	1.26	3.43	0.90
0074B2U	Manhole/Inlet	2.16	4.66	0.90
0266A3U	Manhole/Inlet	0.51	2.35	0.60
0307B2U	Manhole/Inlet	3.59	5.79	0.90
0307B4U	Manhole/Inlet	3.89	5.82	0.90
0307E2U	Manhole/Inlet	3.54	6.20	0.90
0305A7U	Manhole/Inlet	4.08	5.60	0.90
0305A6U	Manhole/Inlet	2.78	5.36	0.90
0290AV1U	Manhole/Inlet	1.00	3.19	1.20
0290AV2U	Manhole/Inlet	1.08	3.33	1.20
Stockland 109/1	Manhole/Inlet	8.99	10.29	1.00
Stockland 110/1	Manhole/Inlet	8.95	10.34	1.00
0290AV4U	Manhole/Inlet	1.51	3.93	0.90
0290AV3U	Manhole/Inlet	1.40	3.71	0.90
0291A11U	Manhole/Inlet	3.39	4.70	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0307A13U	Manhole/Inlet	3.77	5.31	1.05
0307A11U	Manhole/Inlet	3.57	6.31	1.05
0307A12U	Manhole/Inlet	3.72	5.38	1.05
0216A4U	Manhole/Inlet	4.74	7.84	1.20
0216A10U	Manhole/Inlet	4.99	7.64	1.20
0176A18U	Manhole/Inlet	5.10	7.02	1.35
0209BJ3U	Manhole/Inlet	6.62	8.33	1.20
0209BK2U	Manhole/Inlet	6.41	9.20	1.20
0209BL3U	Manhole/Inlet	7.17	9.77	1.05
0209BKB1U	Manhole/Inlet	6.12	9.44	1.50
0206A02U	Manhole/Inlet	-0.14	3.00	1.05
0040A04U	Manhole/Inlet	1.20	2.44	2.10
0206A6U	Manhole/Inlet	2.21	4.13	0.90
0206A5U	Manhole/Inlet	1.42	4.09	0.90
0206A3U	Manhole/Inlet	0.73	4.20	1.20
0059A3U	Manhole/Inlet	-0.40	4.94	1.05
0061A3U	Manhole/Inlet	6.48	8.78	1.05
0209B35U	Manhole/Inlet	8.04	10.20	1.20
0617D7U	Manhole/Inlet	9.93	14.10	1.20
0617D8U	Manhole/Inlet	10.18	14.40	1.20
0009A07U	Manhole/Inlet	5.14	7.04	0.90
0009A6U	Manhole/Inlet	4.29	6.50	0.90
0074G07U	Manhole/Inlet	3.24	5.15	1.20
0140A2U	Manhole/Inlet	2.21	3.47	1.05
0209A2U	Manhole/Inlet	4.89	9.10	1.65
0209B3U	Manhole/Inlet	5.11	8.70	3.60
0209B21U	Manhole/Inlet	7.24	9.49	1.20
0209B22U	Manhole/Inlet	7.26	9.05	1.05
0209B20U	Manhole/Inlet	7.09	9.51	1.20
0138A24U	Manhole/Inlet	23.87	26.75	0.90
0242JA1U	Manhole/Inlet	2.90	5.00	1.20
0290A19U	Manhole/Inlet	0.45	3.57	1.35
0089A13U	Manhole/Inlet	4.43	5.94	0.90
0089A7U	Manhole/Inlet	3.38	5.65	1.35
0071A11U	Manhole/Inlet	3.90	5.19	0.90
0089A12U	Manhole/Inlet	4.39	5.94	0.90
0089A11U	Manhole/Inlet	4.08	5.79	1.05
0023A21U	Manhole/Inlet	10.68	13.23	0.90
0023A19U	Manhole/Inlet	10.45	13.02	1.05
0023A18U	Manhole/Inlet	10.26	13.06	1.05
0023A17U	Manhole/Inlet	10.00	13.61	1.20
0023A14U	Manhole/Inlet	9.50	13.05	1.20
0023A13U	Manhole/Inlet	9.31	12.83	1.20
0023A12U	Manhole/Inlet	9.31	12.43	1.20
0023A11U	Manhole/Inlet	9.29	11.90	1.20
0023A9U	Manhole/Inlet	9.17	11.15	1.20
0023A20U	Manhole/Inlet	10.57	13.12	0.90
0023A10U	Manhole/Inlet	9.27	11.99	1.20
0172A8U	Manhole/Inlet	11.42	13.61	0.90
0290AAB1U	Manhole/Inlet	-0.14	2.16	1.35
0290AAB2U	Manhole/Inlet	0.25	2.19	1.05
0290AD3U	Manhole/Inlet	0.22	2.52	1.20
0026A4U	Manhole/Inlet	4.80	6.30	0.90
0372A3U	Manhole/Inlet	7.86	9.65	1.50

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0372A7U	Manhole/Inlet	8.76	10.37	0.90
0290A16U	Manhole/Inlet	0.14	3.57	1.50
0290AV5U	Manhole/Inlet	1.67	4.17	0.90
0290AZR5U	Manhole/Inlet	1.23	2.78	0.90
0039A6U	Manhole/Inlet	0.70	4.15	1.20
0039B2U	Manhole/Inlet	-0.08	2.28	1.05
0039A2U	Manhole/Inlet	-0.08	2.21	1.35
0264K3U	Manhole/Inlet	0.55	2.75	0.90
0251N2U	Manhole/Inlet	3.35	4.20	0.60
0249A5U	Manhole/Inlet	0.02	3.35	1.20
0249A4U	Manhole/Inlet	-0.01	3.90	1.20
0249A3U	Manhole/Inlet	-0.04	2.87	1.20
0372A12U	Manhole/Inlet	9.89	11.75	0.90
0165A2U	Manhole/Inlet	0.62	3.32	3.00
0074H4U	Manhole/Inlet	2.40	4.28	0.90
0050A8U	Manhole/Inlet	2.42	3.70	0.90
0050A15U	Manhole/Inlet	2.82	4.74	0.90
0050AM1U	Manhole/Inlet	3.14	4.74	0.90
0172A7U	Manhole/Inlet	11.37	13.81	0.90
0172A9U	Manhole/Inlet	11.58	13.74	0.90
0251D7U	Manhole/Inlet	3.94	4.89	0.60
0251DC2U	Manhole/Inlet	4.08	5.70	0.60
0251D6U	Manhole/Inlet	3.84	5.50	0.75
0251D5U	Manhole/Inlet	3.56	4.87	0.90
0251A11U	Manhole/Inlet	3.51	5.05	0.90
0251M5U	Manhole/Inlet	2.99	4.92	1.05
0251M6U	Manhole/Inlet	3.19	4.84	0.90
0251M7U	Manhole/Inlet	3.32	4.67	0.90
0176A2U	Manhole/Inlet	4.15	8.14	1.80
0176A3U	Manhole/Inlet	4.18	8.05	1.80
0209B2U	Manhole/Inlet	4.76	8.64	3.60
0270A1D	Outlet	-0.95	1.60	1.80
0158F1D	Outlet	0.98	2.56	1.20
0046A1D	Outlet	-0.48	1.40	1.05
0189A1D	Outlet	1.05	1.80	1.20
0040A1D	Outlet	1.16	1.90	2.10
0093A3U	Manhole/Inlet	5.96	8.30	1.20
0093A02U	Manhole/Inlet	3.57	6.04	2.40
Stockland 101/1	Manhole/Inlet	8.90	10.40	1.00
Stockland 120/1	Manhole/Inlet	8.85	10.37	1.00
0093A4U	Manhole/Inlet	6.60	9.10	1.80
0270A30U	Manhole/Inlet	15.70	17.38	1.80
0009A5U	Manhole/Inlet	3.05	4.83	0.90
0209BL02U	Manhole/Inlet	6.60	9.00	1.20
0023AA3U	Manhole/Inlet	9.22	10.62	0.90
0272A13U	Manhole/Inlet	7.47	8.58	0.90
0272A14U	Manhole/Inlet	7.52	8.62	0.90
0305A9U	Manhole/Inlet	4.23	5.72	0.90
0113A10U	Manhole/Inlet	6.26	8.80	0.75
0113A2U	Manhole/Inlet	2.72	3.90	0.90
0160A2U	Manhole/Inlet	5.62	7.65	1.20
0029A4U	Manhole/Inlet	-0.25	2.87	1.20
0270A34U	Manhole/Inlet	21.78	23.37	1.80
0372A16U	Manhole/Inlet	10.17	11.83	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0264AF1U	Manhole/Inlet	1.17	2.47	0.90
0019A1D	Outlet	2.51	6.00	1.50
0152A1D	Outlet	2.29	7.12	1.20
0203A1D	Outlet	0.43	4.86	0.90
0140A1Db	Outlet	2.17	3.50	2.40
0155B1D	Outlet	6.57	8.00	1.20
0216A1D	Outlet	4.65	5.90	1.20
0160A1D	Outlet	-0.16	3.64	1.20
0301A1D	Outlet	3.35	5.14	1.50
0165AB1U	Manhole/Inlet	3.07	4.00	1.87
0264K4U	Manhole/Inlet	0.77	2.58	0.90
0029AC7U	Manhole/Inlet	1.52	2.65	1.50
0029AC4U	Manhole/Inlet	1.45	2.45	1.35
0232A31U	Manhole/Inlet	3.13	4.70	0.90
0165B3U	Outlet	7.45	8.60	1.43
0160A3U	Manhole/Inlet	5.62	7.55	1.20
0305A10U	Manhole/Inlet	5.13	6.69	0.90
0059A5U	Manhole/Inlet	-0.03	2.75	1.05
0158C6U	Manhole/Inlet	0.87	2.57	0.90
0158C5U	Manhole/Inlet	0.81	1.96	0.90
0096C4U	Manhole/Inlet	0.88	2.82	1.05
0096C6U	Manhole/Inlet	1.03	2.65	1.05
0096C7U	Manhole/Inlet	1.06	2.59	0.90
0096C8U	Manhole/Inlet	1.13	2.55	0.90
0096C2U	Manhole/Inlet	0.83	2.88	1.05
0096D4U	Manhole/Inlet	0.98	3.14	1.20
0096D3U	Manhole/Inlet	0.90	3.10	1.20
0290AZR2U	Manhole/Inlet	0.72	2.72	1.05
0096D2U	Manhole/Inlet	0.84	3.28	1.20
0176A19U	Manhole/Inlet	5.41	6.88	1.05
0088AJ1U	Manhole/Inlet	1.85	4.00	0.90
0237A7U	Manhole/Inlet	3.09	4.99	2.10
0237A07U	Manhole/Inlet	3.08	5.08	2.10
0264KA5U	Manhole/Inlet	1.66	2.66	0.60
0264AB1U	Manhole/Inlet	1.56	2.50	0.90
0160A4U	Manhole/Inlet	6.26	8.18	1.20
0237A2U	Manhole/Inlet	2.39	4.29	3.00
0202A04U	Manhole/Inlet	4.56	8.00	1.35
0237AB9U	Manhole/Inlet	3.05	5.00	1.20
0270A00031U	Manhole/Inlet	15.95	17.80	1.80
0270A0031U	Manhole/Inlet	15.90	17.50	1.80
0270A031U	Manhole/Inlet	15.70	17.40	1.80
0270A000031U	Manhole/Inlet	17.00	18.60	1.80
0307B3U	Manhole/Inlet	3.65	5.82	0.90
0307B5U	Manhole/Inlet	3.97	5.89	0.90
0290AZW2U	Manhole/Inlet	1.46	3.22	0.90
0222A016U	Manhole/Inlet	2.56	4.65	0.90
0617DE2U	Manhole/Inlet	11.36	14.20	0.90
0617DE1U	Manhole/Inlet	11.17	14.00	0.90
0044A3U	Manhole/Inlet	1.90	3.77	2.00
0250A6U	Manhole/Inlet	1.48	3.56	1.20
0237AJ1U	Manhole/Inlet	3.74	5.47	0.90
0216A15U	Manhole/Inlet	5.84	7.45	0.90
0165A4U	Manhole/Inlet	3.02	4.03	3.00

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0272A15U	Manhole/Inlet	8.42	9.40	0.90
0237A3U	Manhole/Inlet	2.43	4.64	3.00
0074CXB1U	Manhole/Inlet	3.44	4.35	0.60
0074CX4U	Manhole/Inlet	3.48	4.54	0.60
0074CX5U	Manhole/Inlet	3.60	4.80	0.53
0307E3U	Manhole/Inlet	3.59	6.07	0.90
0237AB6U	Manhole/Inlet	2.59	4.90	1.20
0144A2U	Manhole/Inlet	1.65	3.12	1.05
0044AA1U	Manhole/Inlet	0.66	3.81	2.00
0272A12U	Manhole/Inlet	7.31	8.37	0.90
0227AB1U	Manhole/Inlet	5.80	8.12	1.50
0074G2U	Manhole/Inlet	2.50	4.31	2.10
0137A2U	Manhole/Inlet	0.59	3.37	2.10
Stockland 111/1	Manhole/Inlet	8.81	10.30	1.00
Stockland 121/1	Manhole/Inlet	8.76	10.42	1.00
Stockland 102/1	Manhole/Inlet	8.67	10.51	1.00
Stockland 122/1	Manhole/Inlet	8.61	10.56	1.00
0078A8U	Manhole/Inlet	4.50	7.40	1.05
0088A5U	Manhole/Inlet	0.77	2.88	1.50
0282AA2U	Manhole/Inlet	2.83	4.12	0.75
0137A4U	Manhole/Inlet	0.89	3.56	0.60
0251C1D	Outlet	2.70	4.51	0.90
0290AU1U	Manhole/Inlet	0.62	2.85	1.05
0282A4U	Manhole/Inlet	2.40	4.25	0.75
0237A4U	Manhole/Inlet	2.51	4.80	3.00
0205C4U	Manhole/Inlet	0.11	2.25	0.75
0205C5U	Manhole/Inlet	0.11	2.34	0.75
0023AA2U	Manhole/Inlet	9.00	10.80	0.90
0040A2U	Manhole/Inlet	1.16	1.94	2.10
0050A13U	Manhole/Inlet	2.55	4.30	0.90
0050A14U	Manhole/Inlet	2.78	4.46	0.90
0202A20U	Manhole/Inlet	5.68	7.67	0.90
0202A4U	Manhole/Inlet	4.65	7.60	1.35
0029AC08U	Manhole/Inlet	1.54	2.69	1.50
0237A03U	Manhole/Inlet	2.38	4.28	3.00
0216A3U	Manhole/Inlet	4.71	8.00	1.20
0237A5U	Manhole/Inlet	2.79	5.30	3.00
0264KA4U	Manhole/Inlet	1.57	2.89	0.60
0227A12U	Manhole/Inlet	7.32	9.76	1.20
0216A12U	Manhole/Inlet	5.31	6.82	1.05
0209B025U	Manhole/Inlet	7.34	9.34	1.05
0135A1D	Manhole/Inlet	2.50	5.25	2.10
0237AKB01U	Manhole/Inlet	3.61	5.47	1.20
0237AKB4U	Manhole/Inlet	3.98	5.52	1.05
0237AB2U	Manhole/Inlet	2.48	5.00	1.20
0272A011U	Manhole/Inlet	4.88	6.03	0.90
0227A5U	Manhole/Inlet	5.86	8.36	1.20
0158F3U	Manhole/Inlet	1.12	2.90	1.20
0209B029U	Manhole/Inlet	7.56	9.70	1.05
0282AA02U	Manhole/Inlet	2.80	4.29	0.75
0164A01U	Manhole/Inlet	0.21	2.60	0.90
0264KA3U	Manhole/Inlet	1.40	2.36	0.60
0251D8U	Manhole/Inlet	3.97	4.92	0.60
0164A1U	Manhole/Inlet	1.34	2.60	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0158F2U	Manhole/Inlet	0.99	3.27	1.20
0158C3U	Manhole/Inlet	0.58	2.82	0.90
0372A2U	Manhole/Inlet	7.71	9.47	1.50
0372A4U	Manhole/Inlet	8.00	9.82	1.35
0372A5U	Manhole/Inlet	8.11	9.87	1.35
0372A6U	Manhole/Inlet	8.41	10.06	0.90
0372A8U	Manhole/Inlet	9.09	10.43	0.90
0617D10U	Manhole/Inlet	10.99	13.60	0.90
0617D11U	Manhole/Inlet	11.10	13.40	0.90
0617D12U	Manhole/Inlet	11.20	13.60	0.90
0617D13U	Manhole/Inlet	11.29	13.40	0.90
0718A19U	Manhole/Inlet	7.85	11.40	3.20
0718A4U	Manhole/Inlet	7.36	10.15	3.35
0718A5U	Manhole/Inlet	7.36	10.11	3.35
0718A6U	Manhole/Inlet	7.43	9.89	3.35
0718A7U	Manhole/Inlet	7.44	9.89	3.35
0718A8U	Manhole/Inlet	7.50	10.01	3.35
0718A9U	Manhole/Inlet	7.51	10.01	3.35
0718A11U	Manhole/Inlet	7.57	10.09	3.35
0718A12U	Manhole/Inlet	7.58	10.09	3.20
0718A13U	Manhole/Inlet	7.66	10.34	3.20
0718A14U	Manhole/Inlet	7.68	10.35	3.20
0718A15U	Manhole/Inlet	7.73	10.58	3.20
0718A17U	Manhole/Inlet	7.80	10.95	3.20
0718A18U	Manhole/Inlet	7.81	10.99	3.20
0230A7U	Manhole/Inlet	4.76	6.47	0.90
0291A9U	Manhole/Inlet	2.80	5.20	0.90
0232A36U	Manhole/Inlet	3.62	5.12	0.90
0232A35U	Manhole/Inlet	3.57	5.06	0.90
0222A014U	Manhole/Inlet	2.48	4.65	0.90
0222A14U	Manhole/Inlet	2.51	4.59	0.90
0222A15U	Manhole/Inlet	2.53	4.57	0.90
0237AB011U	Manhole/Inlet	3.38	5.28	0.90
0237AB0011U	Manhole/Inlet	3.42	5.22	0.90
0203A3U	Manhole/Inlet	1.25	2.62	0.90
0718A3U	Manhole/Inlet	7.29	10.07	3.35
0718A02U	Manhole/Inlet	7.23	10.76	3.30
0237AB13U	Manhole/Inlet	3.63	5.15	0.90
0243A17U	Manhole/Inlet	1.57	2.85	0.90
0296A2U	Manhole/Inlet	1.65	2.74	0.90
0205C7U	Manhole/Inlet	0.11	2.34	0.75
0205C6U	Manhole/Inlet	0.11	2.11	0.75
0137A5U	Manhole/Inlet	1.50	3.41	0.60
0158B2U	Manhole/Inlet	1.32	2.92	0.90
0074M1U	Manhole/Inlet	2.43	4.40	1.20
0074M2U	Manhole/Inlet	2.50	4.16	1.20
0202A2U	Manhole/Inlet	4.06	8.15	1.35
0222A11U	Manhole/Inlet	2.33	4.92	1.20
0222A16U	Manhole/Inlet	2.58	4.53	0.90
0249A7U	Manhole/Inlet	0.49	2.61	1.20
0029A05U	Manhole/Inlet	-0.05	1.78	1.20
0029AC3U	Manhole/Inlet	1.45	2.70	1.35
0029AC5U	Manhole/Inlet	1.48	2.69	1.35
0029AC9U	Manhole/Inlet	1.57	2.59	2.40

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0029A6U	Manhole/Inlet	0.27	2.43	1.20
0029A07U	Manhole/Inlet	0.65	2.75	0.60
0206A8U	Manhole/Inlet	6.55	8.90	0.75
0177A5U	Manhole/Inlet	3.73	5.98	0.75
0023ABB1U	Manhole/Inlet	9.16	11.63	0.90
0113A9U	Manhole/Inlet	6.19	8.38	0.75
0113A7U	Manhole/Inlet	6.15	8.37	0.75
0113A6U	Manhole/Inlet	5.64	6.90	0.75
0113A3U	Manhole/Inlet	3.96	5.70	0.75
0113A5U	Manhole/Inlet	5.40	7.30	0.75
0251A9U	Manhole/Inlet	3.38	4.90	0.90
0158C7U	Manhole/Inlet	0.90	2.40	0.90
0270A17U	Manhole/Inlet	6.19	9.38	1.50
0617D2U	Manhole/Inlet	8.49	15.20	1.35
0617D3U	Manhole/Inlet	8.63	15.50	1.35
0009A2U	Manhole/Inlet	0.74	3.97	1.80
0009A3U	Manhole/Inlet	1.16	4.70	1.50
0009A03U	Manhole/Inlet	1.00	3.87	1.50
0009AF2U	Manhole/Inlet	0.10	3.87	1.50
0617D4U	Manhole/Inlet	8.82	15.00	1.35
0068A5U	Manhole/Inlet	5.45	7.95	1.05
0068A6U	Manhole/Inlet	5.53	7.88	1.05
0291A10U	Manhole/Inlet	3.27	5.07	0.90
0270A20U	Manhole/Inlet	8.92	12.24	1.50
0068A2U	Manhole/Inlet	5.10	7.64	1.20
0068A3U	Manhole/Inlet	5.18	7.60	1.20
0285A3U	Manhole/Inlet	5.40	8.40	0.90
0248A2U	Manhole/Inlet	4.35	6.41	1.05
0248A8U	Manhole/Inlet	5.27	6.79	0.90
0172A5U	Manhole/Inlet	11.16	14.08	0.90
0172A6U	Manhole/Inlet	11.22	14.22	0.90
0290AA1U	Manhole/Inlet	-0.31	2.20	1.50
0290AA6U	Manhole/Inlet	0.32	2.30	1.05
0266A4U	Manhole/Inlet	0.56	2.31	0.45
0251AHIU	Manhole/Inlet	3.54	5.05	0.90
0209BE4U	Manhole/Inlet	7.01	9.35	0.90
0209BB5U	Manhole/Inlet	6.31	8.83	1.05
0209BB7U	Manhole/Inlet	6.46	8.92	1.05
0209BB6U	Manhole/Inlet	6.38	8.86	1.05
0209BB12U	Manhole/Inlet	6.91	8.58	0.90
0209BB10U	Manhole/Inlet	6.65	8.45	1.05
0209BB9U	Manhole/Inlet	6.60	8.69	1.05
0202A19U	Manhole/Inlet	5.66	7.65	0.90
0249A2U	Manhole/Inlet	-0.08	2.72	1.20
0250A3U	Manhole/Inlet	1.25	3.74	1.35
0270A32U	Manhole/Inlet	19.91	21.24	1.80
0216A11U	Manhole/Inlet	5.16	7.00	1.05
0074C16U	Manhole/Inlet	2.18	4.07	1.60
0074C15U	Manhole/Inlet	2.06	4.62	2.00
0266A5U	Manhole/Inlet	0.63	2.67	0.45
0305A5U	Manhole/Inlet	1.23	4.22	0.90
0251C4U	Manhole/Inlet	3.78	4.74	0.90
Stockland 123/1	Manhole/Inlet	8.43	10.59	1.00
Stockland 124/1	Manhole/Inlet	8.25	10.43	1.00

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0029AC8U	Manhole/Inlet	1.54	2.72	1.50
0243A16U	Manhole/Inlet	1.56	2.85	0.90
0243A18U	Manhole/Inlet	1.58	2.96	0.90
0287A3U	Manhole/Inlet	0.40	3.11	1.20
0040A5U	Manhole/Inlet	1.28	3.06	2.10
0040A6U	Manhole/Inlet	1.30	2.43	1.20
0040AE3U	Manhole/Inlet	1.30	2.47	0.90
0040AE4U	Manhole/Inlet	1.50	2.41	0.75
0189A3U	Manhole/Inlet	1.12	2.51	1.20
0189A2U	Manhole/Inlet	1.07	2.51	1.20
0029AC09U	Manhole/Inlet	1.57	2.96	1.50
0264KA1U	Manhole/Inlet	0.86	2.67	0.60
0019AJ8U	Manhole/Inlet	4.58	5.97	1.20
0140A8U	Manhole/Inlet	2.50	3.91	1.05
0140A10U	Manhole/Inlet	2.59	3.75	1.05
0140A4U	Manhole/Inlet	2.32	3.65	1.05
0140A5U	Manhole/Inlet	2.39	3.49	1.05
0140A12U	Manhole/Inlet	2.67	4.91	1.05
0140A13U	Manhole/Inlet	2.87	4.40	0.90
0144A7U	Manhole/Inlet	2.14	4.26	1.05
0144A8U	Manhole/Inlet	2.37	4.16	0.90
0144A9U	Manhole/Inlet	2.46	4.24	0.90
0140A3U	Manhole/Inlet	2.23	3.50	1.05
0144A3U	Manhole/Inlet	1.68	3.00	1.05
0144A6U	Manhole/Inlet	2.03	3.85	1.05
0040A4U	Manhole/Inlet	1.21	2.63	2.10
0155A15U	Manhole/Inlet	8.70	11.88	1.65
0311A4U	Manhole/Inlet	0.06	3.06	0.90
0070B4U	Manhole/Inlet	7.70	9.44	1.05
0301A2U	Manhole/Inlet	3.38	6.23	1.50
0301A3U	Manhole/Inlet	3.47	5.53	1.50
0023AB1U	Manhole/Inlet	8.78	11.61	1.35
0135A10U	Manhole/Inlet	3.70	5.26	0.90
0135A11U	Manhole/Inlet	4.16	5.35	0.90
0152A7U	Manhole/Inlet	3.76	6.25	1.20
0050B3U	Manhole/Inlet	2.30	4.03	0.75
0035AC1U	Manhole/Inlet	6.59	9.40	0.90
0155A16U	Manhole/Inlet	8.72	12.07	1.65
0039B3U	Manhole/Inlet	0.15	2.52	1.05
0039A3U	Manhole/Inlet	0.15	2.54	1.35
0135A12U	Manhole/Inlet	4.44	5.49	0.90
0135A13U	Manhole/Inlet	4.72	5.80	0.90
0071A10U	Manhole/Inlet	3.82	5.15	0.90
0145A10U	Manhole/Inlet	6.83	9.18	0.90
0251M3U	Manhole/Inlet	2.75	5.33	1.05
0251M4U	Manhole/Inlet	2.80	5.10	1.05
0227A22U	Manhole/Inlet	8.24	10.32	0.90
0227AZY1U	Manhole/Inlet	8.53	9.56	0.90
0227AZY2U	Manhole/Inlet	8.72	10.35	0.90
0227AZY3U	Manhole/Inlet	8.73	10.29	0.90
0227A21U	Manhole/Inlet	7.89	10.60	1.20
0227A20U	Manhole/Inlet	7.86	10.02	1.20
0227A19U	Manhole/Inlet	7.80	10.02	1.20
0227A18U	Manhole/Inlet	7.75	9.76	1.20

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0227A17U	Manhole/Inlet	7.72	10.46	1.20
0227A16U	Manhole/Inlet	7.68	10.28	1.20
0227A15U	Manhole/Inlet	7.51	10.06	1.20
0227AH3U	Manhole/Inlet	7.23	9.12	1.05
0227AH4U	Manhole/Inlet	7.50	9.47	0.90
0035A2U	Manhole/Inlet	6.38	9.56	0.90
0035A3U	Manhole/Inlet	6.45	9.53	0.90
0209BQ1U	Manhole/Inlet	7.13	9.00	0.90
0209B47U	Manhole/Inlet	9.03	11.12	1.05
0209BZQ2U	Manhole/Inlet	8.58	10.70	0.90
0209BZQ3U	Manhole/Inlet	8.64	10.77	0.90
0209B42U	Manhole/Inlet	8.74	10.57	1.05
0209B44U	Manhole/Inlet	8.88	10.95	1.05
0209BZQ1U	Manhole/Inlet	8.49	10.63	0.90
0155AN13U	Manhole/Inlet	9.99	11.34	0.90
0209B57U	Manhole/Inlet	9.93	12.34	0.90
0209B56U	Manhole/Inlet	9.92	12.14	0.90
0138A6U	Manhole/Inlet	7.38	10.42	1.20
0138A7U	Manhole/Inlet	7.83	11.02	1.20
0138A8U	Manhole/Inlet	8.85	11.59	1.20
0138A9U	Manhole/Inlet	9.89	11.98	1.20
0138A10U	Manhole/Inlet	10.16	12.40	1.20
0138A5U	Manhole/Inlet	7.14	9.85	1.35
0138A11U	Manhole/Inlet	10.63	12.91	1.20
0138A15U	Manhole/Inlet	12.51	15.29	1.20
0138A19U	Manhole/Inlet	13.99	15.96	1.05
0138A21U	Manhole/Inlet	20.49	21.94	0.90
0138A20U	Manhole/Inlet	16.17	17.99	0.90
0158C4U	Manhole/Inlet	0.71	2.52	0.90
0140A14U	Manhole/Inlet	3.04	4.40	0.75
0140A17U	Manhole/Inlet	4.01	5.30	0.60
0059A7U	Manhole/Inlet	0.04	2.92	1.05
0059A6U	Manhole/Inlet	-0.02	2.75	1.05
0209BG3U	Manhole/Inlet	6.42	8.86	1.05
0209C4U	Manhole/Inlet	7.71	9.93	1.20
0209C5U	Manhole/Inlet	7.92	10.50	0.90
0245A6U	Manhole/Inlet	1.26	2.63	0.90
0245A7U	Manhole/Inlet	1.37	2.63	0.90
0245A4U	Manhole/Inlet	1.18	2.95	1.05
0245A3U	Manhole/Inlet	1.11	2.94	1.05
0209B54U	Manhole/Inlet	9.81	11.60	0.90
0209B52U	Manhole/Inlet	9.34	11.30	1.05
0209B50U	Manhole/Inlet	9.27	11.30	1.05
0209B49U	Manhole/Inlet	9.15	11.17	1.05
0209B51U	Manhole/Inlet	9.32	11.30	1.05
0209B53U	Manhole/Inlet	9.57	11.10	0.90
0009A7U	Manhole/Inlet	5.35	9.61	0.90
0209B17U	Manhole/Inlet	6.87	9.60	1.20
0209BV2U	Manhole/Inlet	8.04	9.25	1.05
0222A3U	Manhole/Inlet	2.03	4.06	1.20
0222A7U	Manhole/Inlet	2.17	4.56	1.20
0155A14U	Manhole/Inlet	8.62	11.27	1.65
0155A13U	Manhole/Inlet	8.52	11.21	1.65
0237AJ4U	Manhole/Inlet	3.99	5.31	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0074C21U	Manhole/Inlet	2.66	4.31	0.90
0074C19U	Manhole/Inlet	2.42	4.24	0.90
0074CX1U	Manhole/Inlet	2.85	4.29	0.90
0209B24U	Manhole/Inlet	7.39	9.30	1.05
0209B26U	Manhole/Inlet	7.50	9.47	1.05
0270A2U	Manhole/Inlet	0.19	2.57	1.80
0145AB2U	Manhole/Inlet	5.84	8.23	1.50
0145A2U	Manhole/Inlet	4.97	8.10	1.80
0145A3U	Manhole/Inlet	5.86	7.77	1.05
0145A4U	Manhole/Inlet	5.91	7.70	1.05
0145A5U	Manhole/Inlet	6.16	8.18	1.05
0145A6U	Manhole/Inlet	6.46	8.50	0.90
0145A8U	Manhole/Inlet	6.71	8.97	0.90
0145A9U	Manhole/Inlet	6.74	9.04	0.90
0227AHE2U	Manhole/Inlet	7.52	9.63	0.90
0227AH2U	Manhole/Inlet	7.22	9.08	1.05
0227A8U	Manhole/Inlet	6.95	9.72	1.20
0227A7U	Manhole/Inlet	6.11	8.96	1.20
0232A34U	Manhole/Inlet	3.33	4.44	0.90
0209B5U	Manhole/Inlet	5.25	9.05	1.65
0209D7U	Manhole/Inlet	5.08	9.33	2.70
0209BB3U	Manhole/Inlet	6.01	9.12	1.05
0209BB4U	Manhole/Inlet	6.78	9.29	1.05
0209BA1U	Manhole/Inlet	5.86	8.60	0.90
0209D5U	Manhole/Inlet	5.05	9.47	2.70
0209B6U	Manhole/Inlet	5.56	9.15	1.65
0209BB1U	Manhole/Inlet	5.93	9.50	0.90
0209BA2U	Manhole/Inlet	6.08	8.90	0.90
0209BE2U	Manhole/Inlet	6.96	9.36	0.90
0209BE3U	Manhole/Inlet	6.97	9.47	0.90
0172A4U	Manhole/Inlet	11.15	14.17	0.90
0172A2U	Manhole/Inlet	11.04	14.19	0.90
0172A3U	Manhole/Inlet	11.14	14.06	0.90
0011B2U	Manhole/Inlet	12.25	15.41	0.90
0209BG1U	Manhole/Inlet	6.25	8.91	1.05
0209BG2U	Manhole/Inlet	6.32	8.68	1.05
0209BKA2U	Manhole/Inlet	6.03	9.28	2.70
0209BE1U	Manhole/Inlet	6.85	9.00	0.90
0209D9U	Manhole/Inlet	5.77	9.65	2.70
0209BJ1U	Manhole/Inlet	6.52	9.44	1.20
0209B13U	Manhole/Inlet	6.44	9.44	1.20
0209B12U	Manhole/Inlet	6.41	9.28	1.20
0209B14U	Manhole/Inlet	6.60	9.14	1.20
0209B29U	Manhole/Inlet	7.61	9.82	2.40
0209B30U	Manhole/Inlet	7.78	10.18	1.05
0237A13U	Manhole/Inlet	4.39	6.05	0.90
0074G4U	Manhole/Inlet	2.73	4.93	1.20
0074G3U	Manhole/Inlet	2.50	5.29	1.20
0074G8U	Manhole/Inlet	3.34	5.71	1.20
0074G6U	Manhole/Inlet	2.94	5.03	1.20
0074G7U	Manhole/Inlet	3.24	5.24	1.20
0251G4U	Outlet	1.96	3.27	0.90
0251GC1U	Manhole/Inlet	1.97	3.47	0.90
0074CX2U	Manhole/Inlet	3.05	4.53	1.20

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0074CX3U	Manhole/Inlet	3.40	4.44	1.20
0125B8U	Manhole/Inlet	3.57	4.57	0.75
0125B7U	Manhole/Inlet	3.50	5.21	1.20
0125BC2U	Manhole/Inlet	3.61	5.10	1.20
0125BC1U	Manhole/Inlet	3.53	5.20	1.20
0125B6U	Manhole/Inlet	3.29	4.41	1.20
0125B3U	Manhole/Inlet	3.00	4.21	1.20
0125B5U	Manhole/Inlet	3.13	3.91	1.20
0039A5U	Manhole/Inlet	0.23	3.32	1.20
0155A12U	Manhole/Inlet	8.49	11.14	1.65
0023A8U	Manhole/Inlet	9.12	11.01	1.50
0237AKB1U	Manhole/Inlet	3.72	5.48	1.20
0237AK1U	Manhole/Inlet	3.59	5.41	1.20
0237A11U	Manhole/Inlet	3.76	5.70	0.90
0237A12U	Manhole/Inlet	4.13	5.79	0.90
0237A10U	Manhole/Inlet	3.49	5.67	2.10
0237A8U	Manhole/Inlet	3.18	5.98	2.10
0138A23U	Manhole/Inlet	22.36	24.25	0.90
0176A4U	Manhole/Inlet	4.22	8.00	1.80
0176A5U	Manhole/Inlet	4.25	7.67	1.80
0232A40U	Manhole/Inlet	4.01	5.10	0.90
0155AK1U	Manhole/Inlet	8.79	12.06	1.50
0039A4U	Manhole/Inlet	0.23	3.21	1.35
0023A7U	Manhole/Inlet	8.70	10.74	1.50
0290A23U	Manhole/Inlet	1.16	4.43	1.05
0290A22U	Manhole/Inlet	0.85	4.11	1.20
0040A3U	Manhole/Inlet	1.17	2.48	2.10
0040AE2U	Manhole/Inlet	1.20	2.32	1.50
0071A6U	Manhole/Inlet	3.67	5.37	0.90
0039AD1U	Manhole/Inlet	1.47	3.27	0.90
0039A7U	Manhole/Inlet	1.27	4.30	0.90
0264A7U	Manhole/Inlet	1.05	2.41	1.05
0282AA01U	Manhole/Inlet	2.49	4.75	1.20
0176A10U	Manhole/Inlet	4.76	7.19	1.50
0176A11U	Manhole/Inlet	4.78	7.24	1.50
0270A12U	Manhole/Inlet	3.59	6.36	1.65
0209B40U	Manhole/Inlet	8.47	10.75	1.20
0209B37U	Manhole/Inlet	8.10	10.15	1.20
0209B33U	Manhole/Inlet	7.94	10.12	1.20
0209B32U	Manhole/Inlet	7.89	10.24	1.20
0074H2U	Manhole/Inlet	2.21	3.94	0.90
Stockland 125/1	Manhole/Inlet	8.19	10.28	1.00
Stockland 126/1	Manhole/Inlet	8.19	10.29	1.00
0227A2U	Manhole/Inlet	5.55	8.02	1.20
0203A4U	Manhole/Inlet	1.34	2.70	0.90
0227A4U	Manhole/Inlet	5.69	8.54	1.20
0074C22U	Manhole/Inlet	2.74	4.23	0.90
0272A11U	Manhole/Inlet	5.61	6.67	0.90
0272A9U	Manhole/Inlet	3.05	4.52	0.90
0020A16U	Manhole/Inlet	3.21	4.48	0.90
0290A20U	Manhole/Inlet	0.53	3.63	1.35
0050A4U	Manhole/Inlet	2.33	3.53	0.90
0050A3U	Manhole/Inlet	2.26	3.40	0.90
0050B2U	Manhole/Inlet	2.21	3.65	0.75

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0088A8U	Manhole/Inlet	1.22	2.88	1.20
0088AC3U	Manhole/Inlet	1.62	2.94	0.90
008814U	Manhole/Inlet	2.28	4.04	0.90
0088AC2U	Manhole/Inlet	1.57	2.97	0.90
0088A7U	Manhole/Inlet	1.09	2.83	1.20
0088A6U	Manhole/Inlet	0.78	2.81	1.50
0088A9U	Manhole/Inlet	1.35	3.38	1.20
0088A10U	Manhole/Inlet	1.49	3.59	1.20
0088A11U	Manhole/Inlet	1.60	3.66	1.20
0088AC1U	Manhole/Inlet	1.41	2.88	0.90
0074H3U	Manhole/Inlet	2.30	3.92	0.90
0301A4U	Manhole/Inlet	3.56	5.56	1.50
0301A5U	Manhole/Inlet	3.64	5.50	1.50
0152A10U	Manhole/Inlet	4.11	6.01	1.05
0152A9U	Manhole/Inlet	4.01	6.07	1.05
0152A11U	Manhole/Inlet	4.30	6.12	0.90
0152A5U	Manhole/Inlet	3.47	6.88	1.20
0023A4U	Manhole/Inlet	8.29	10.99	1.50
0222A2U	Manhole/Inlet	1.99	3.92	1.20
0168A2U	Manhole/Inlet	1.05	2.58	0.90
0230A3U	Manhole/Inlet	4.45	7.08	0.90
0155AN5U	Manhole/Inlet	9.43	11.85	1.05
0155AN6U	Manhole/Inlet	9.59	11.85	0.90
0127A05U	Manhole/Inlet	4.16	6.19	1.05
0127A3U	Manhole/Inlet	4.04	6.33	1.05
0127A5U	Manhole/Inlet	4.28	6.16	1.05
0023A6U	Manhole/Inlet	8.57	10.85	1.50
0023A5U	Manhole/Inlet	8.48	11.02	1.50
0023AA1U	Manhole/Inlet	8.83	10.75	0.90
0023A2U	Manhole/Inlet	8.27	11.06	1.50
0023A3U	Manhole/Inlet	8.28	10.90	1.50
0050AJ4U	Manhole/Inlet	2.95	4.53	0.90
0050A12U	Manhole/Inlet	2.51	4.29	0.90
0050AJ1U	Manhole/Inlet	2.66	4.24	0.90
0039B4U	Manhole/Inlet	0.23	3.35	0.90
0237AKB6U	Manhole/Inlet	4.21	5.76	0.90
0135A3U	Manhole/Inlet	2.55	5.52	1.05
0135A2U	Manhole/Inlet	2.50	5.61	1.05
0155A10U	Manhole/Inlet	8.43	11.08	1.65
0155A014U	Manhole/Inlet	8.61	11.29	1.65
0155A8U	Manhole/Inlet	8.31	11.49	1.65
0155A11U	Manhole/Inlet	8.45	11.17	1.65
0088AA7U	Manhole/Inlet	1.85	3.45	0.90
0088AA6U	Manhole/Inlet	1.74	3.33	0.90
0088AA5U	Manhole/Inlet	1.63	3.26	0.90
0088AA4U	Manhole/Inlet	1.48	3.22	0.90
0088AA3U	Manhole/Inlet	1.34	3.15	0.90
0088AA2U	Manhole/Inlet	1.24	3.10	0.90
0088AA1U	Manhole/Inlet	0.60	3.07	0.90
0088AB7U	Manhole/Inlet	2.04	3.40	0.90
0088AB6U	Manhole/Inlet	1.93	3.38	0.90
0088AB5U	Manhole/Inlet	1.61	3.22	1.05
0088AB4U	Manhole/Inlet	1.50	3.14	1.05
0088AB3U	Manhole/Inlet	1.39	3.08	1.05

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0088AB2U	Manhole/Inlet	1.27	3.02	1.05
0088AB1U	Manhole/Inlet	0.99	3.03	1.20
0088A4U	Manhole/Inlet	0.60	2.86	1.50
0088AJ2U	Manhole/Inlet	2.10	3.92	0.90
0088A16U	Manhole/Inlet	2.45	4.33	0.90
0088A3U	Manhole/Inlet	0.44	3.08	1.50
0088A2U	Manhole/Inlet	0.42	2.61	1.50
0155A9U	Manhole/Inlet	8.33	11.28	1.65
0216AH2U	Manhole/Inlet	5.04	7.25	0.90
0237AK6U	Manhole/Inlet	4.76	6.03	0.90
0070B5U	Manhole/Inlet	7.94	9.50	1.20
0070A4U	Manhole/Inlet	7.45	9.51	1.20
0070A6U	Manhole/Inlet	7.46	9.40	1.20
0155A5U	Manhole/Inlet	7.69	11.90	1.65
0155A7U	Manhole/Inlet	7.99	11.90	1.65
0019AE1U	Manhole/Inlet	3.49	6.40	0.90
0089A5U	Manhole/Inlet	2.79	6.62	1.20
0089A6U	Manhole/Inlet	3.06	6.05	1.35
0307A6U	Manhole/Inlet	3.04	5.69	1.05
0307A7U	Manhole/Inlet	3.27	5.90	1.05
0307A5U	Manhole/Inlet	2.80	5.92	1.05
0307A4U	Manhole/Inlet	2.56	5.48	1.05
0307A3U	Manhole/Inlet	2.32	5.19	1.05
0307A2U	Manhole/Inlet	2.19	4.24	1.05
0019AJ9U	Manhole/Inlet	4.58	5.96	0.90
0019A10U	Manhole/Inlet	3.82	7.33	1.20
0019AJ3U	Manhole/Inlet	3.92	6.58	1.20
0019AJ5U	Manhole/Inlet	4.14	5.71	1.20
0074G10U	Manhole/Inlet	3.82	5.58	1.05
0307A9U	Manhole/Inlet	3.53	6.28	1.05
0089A10U	Manhole/Inlet	3.64	5.64	1.20
0232A33U	Manhole/Inlet	3.23	4.77	0.90
0232A30U	Outlet	3.13	4.10	0.90
0251C2U	Manhole/Inlet	2.82	4.78	0.90
0251C3U	Manhole/Inlet	3.21	4.90	0.90
0209C6U	Manhole/Inlet	8.31	10.55	0.90
0216A13U	Manhole/Inlet	5.31	6.75	1.05
0216A14U	Manhole/Inlet	5.44	7.00	1.05
0237AJ2U	Manhole/Inlet	3.79	5.25	0.90
0158F5U	Manhole/Inlet	1.27	2.96	0.90
0311A2U	Manhole/Inlet	-0.17	3.54	0.90
0372AH2U	Manhole/Inlet	8.99	11.03	1.20
0070B12U	Manhole/Inlet	8.91	11.11	1.20
0070A10U	Manhole/Inlet	7.89	9.86	1.05
0070A11U	Manhole/Inlet	7.98	9.78	1.05
0070A12U	Manhole/Inlet	8.15	9.65	0.90
0070B6U	Manhole/Inlet	8.08	9.83	1.20
0070B7U	Manhole/Inlet	8.16	9.97	1.20
0070B8U	Manhole/Inlet	8.28	10.58	1.20
0070B9U	Manhole/Inlet	8.41	10.01	1.20
0070B10U	Manhole/Inlet	8.66	10.17	1.05
0070B11U	Manhole/Inlet	8.80	10.55	1.05
0070A13U	Manhole/Inlet	8.36	9.81	0.90
0070A14U	Manhole/Inlet	8.49	9.94	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0070A15U	Manhole/Inlet	8.80	10.02	0.90
0070A9U	Manhole/Inlet	7.80	9.70	1.05
0070A3U	Manhole/Inlet	7.45	9.51	1.20
0070A8U	Manhole/Inlet	7.56	9.63	1.20
0070A2U	Manhole/Inlet	7.39	9.70	1.20
0070B2U	Manhole/Inlet	7.49	10.04	1.05
0089A9U	Manhole/Inlet	3.50	5.81	1.20
0089A8U	Manhole/Inlet	3.46	5.74	1.20
0089AB1U	Manhole/Inlet	4.30	5.48	1.05
0089AB2U	Manhole/Inlet	4.85	5.80	0.90
0307A8U	Manhole/Inlet	3.51	6.40	1.05
0135A8U	Manhole/Inlet	3.22	5.04	1.05
0135A7U	Manhole/Inlet	3.01	4.46	1.05
0135A6U	Manhole/Inlet	2.87	4.36	1.05
0019AJ7U	Manhole/Inlet	4.37	6.15	1.20
0155AA1U	Manhole/Inlet	7.41	11.77	0.90
0155AA2U	Manhole/Inlet	7.44	11.47	0.90
0155AA3U	Manhole/Inlet	7.46	11.51	0.90
0155AA5U	Manhole/Inlet	7.50	11.51	0.90
0155AA6U	Manhole/Inlet	7.55	11.48	0.90
0155B3U	Manhole/Inlet	7.70	11.59	1.05
0155B2U	Manhole/Inlet	7.00	12.05	1.20
0155B4U	Manhole/Inlet	7.98	11.50	1.05
0155B5U	Manhole/Inlet	8.30	11.36	1.05
0209B9U	Manhole/Inlet	5.95	9.60	1.50
0209B11U	Manhole/Inlet	6.10	9.40	1.50
0158F4U	Manhole/Inlet	1.11	2.97	1.20
0305AA7U	Manhole/Inlet	4.42	5.69	0.90
0264KA2U	Manhole/Inlet	1.16	2.49	0.60
0291A4U	Manhole/Inlet	2.08	5.45	1.20
0291A5U	Manhole/Inlet	2.18	5.39	1.20
0291A6U	Manhole/Inlet	2.33	5.25	1.20
0291A2U	Manhole/Inlet	1.75	6.15	1.20
0291A3U	Manhole/Inlet	1.88	5.45	1.20
0291A7U	Manhole/Inlet	2.68	5.38	1.05
0291A8U	Manhole/Inlet	2.75	4.98	1.05
0251A8U	Manhole/Inlet	3.36	4.93	0.90
0270A6U	Manhole/Inlet	2.22	4.98	1.65
0176A7U	Manhole/Inlet	4.32	7.52	1.80
0176A8U	Manhole/Inlet	4.36	7.54	1.80
0176A15U	Manhole/Inlet	4.86	7.07	1.50
0176A20U	Manhole/Inlet	5.49	6.91	1.05
0202A6U	Manhole/Inlet	4.74	7.80	1.35
0202A7U	Manhole/Inlet	4.79	7.67	1.35
0202A9U	Manhole/Inlet	4.89	7.55	1.20
0202A14U	Manhole/Inlet	5.17	7.50	1.05
0202A18U	Manhole/Inlet	5.50	7.63	0.90
0251A7U	Manhole/Inlet	3.35	4.84	0.90
0251A10U	Manhole/Inlet	3.50	5.04	0.90
0290AU2U	Manhole/Inlet	0.68	3.19	1.05
0237AB7U	Manhole/Inlet	2.60	5.00	1.20
0237AB4U	Manhole/Inlet	2.48	4.50	1.20
0290AZW1U	Manhole/Inlet	1.23	3.24	0.90
0222A17U	Manhole/Inlet	2.65	4.71	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0237AKB5U	Manhole/Inlet	4.04	5.95	1.05
0237AJ3U	Manhole/Inlet	3.88	5.35	0.90
0237AKB3U	Manhole/Inlet	3.79	5.52	1.20
0305A2U	Manhole/Inlet	-0.49	1.38	1.05
0132A9U	Manhole/Inlet	0.08	3.00	1.35
0132A8U	Manhole/Inlet	-0.06	3.29	1.35
0134A6U	Manhole/Inlet	4.22	6.14	1.35
0305A3U	Manhole/Inlet	1.05	2.64	0.90
0251Q4U	Manhole/Inlet	1.47	4.29	1.05
0074M4U	Manhole/Inlet	2.87	4.22	0.90
0230A8U	Manhole/Inlet	4.78	6.55	0.90
0007B5U	Manhole/Inlet	7.40	10.23	1.05
0007B6U	Manhole/Inlet	7.47	10.23	1.05
0023A16U	Manhole/Inlet	9.86	13.63	1.20
0020A14U	Manhole/Inlet	2.53	4.12	0.90
0020A4U	Manhole/Inlet	1.76	3.17	1.20
0051B3U	Manhole/Inlet	6.90	8.73	1.20
0051B2U	Manhole/Inlet	6.74	8.48	1.20
0051B4U	Manhole/Inlet	7.02	8.91	1.20
0051B6U	Manhole/Inlet	7.17	8.92	1.05
0074C17U	Manhole/Inlet	2.21	4.04	1.60
0074C18U	Manhole/Inlet	2.36	4.26	1.20
0074C20U	Manhole/Inlet	2.51	4.31	0.90
0132AP1U	Manhole/Inlet	1.43	3.35	0.90
0132A10U	Manhole/Inlet	0.27	3.29	1.35
0132A11U	Manhole/Inlet	0.43	3.40	1.35
0132A12U	Manhole/Inlet	1.07	3.24	0.90
0132A13U	Manhole/Inlet	1.18	3.07	0.90
0165B9U	Manhole/Inlet	9.84	11.70	0.90
0165B6U	Manhole/Inlet	9.73	12.00	1.43
0164A9U	Manhole/Inlet	12.48	15.24	0.90
0205B5U	Manhole/Inlet	0.04	2.20	0.90
0205B3U	Manhole/Inlet	0.00	2.40	0.90
0205B2U	Manhole/Inlet	-0.14	2.60	0.90
0205B4U	Manhole/Inlet	0.04	2.60	0.90
0290AD5U	Manhole/Inlet	0.81	1.98	0.90
0290AD4U	Manhole/Inlet	0.43	2.48	1.20
0088A13U	Manhole/Inlet	2.07	3.63	0.90
0088A12U	Manhole/Inlet	1.74	3.85	1.20
0134A13U	Manhole/Inlet	10.59	12.32	0.90
0134A9U	Outlet	7.03	8.60	2.85
0134A12U	Manhole/Inlet	9.77	11.69	0.90
0134A11U	Manhole/Inlet	8.95	10.91	0.90
0134A06U	Manhole/Inlet	3.51	5.67	1.35
0123A17U	Manhole/Inlet	18.71	20.60	1.05
0123A20U	Manhole/Inlet	20.80	22.00	1.05
0123A3U	Manhole/Inlet	1.10	2.38	1.20
0089A3U	Manhole/Inlet	2.50	5.07	1.20
0089A2U	Manhole/Inlet	2.31	5.38	1.35
0007B011U	Manhole/Inlet	7.92	10.82	1.05
0135A4U	Manhole/Inlet	2.59	5.16	1.05
0135A5U	Manhole/Inlet	2.74	4.37	1.05
0155A17U	Manhole/Inlet	8.93	12.20	1.50
0155A2U	Manhole/Inlet	6.86	12.07	1.20

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0155A3U	Manhole/Inlet	7.40	11.71	1.65
0152A2U	Manhole/Inlet	3.13	6.44	1.20
0205C2U	Manhole/Inlet	0.11	2.60	1.20
0205C3U	Manhole/Inlet	0.15	2.60	1.20
0205D2U	Manhole/Inlet	-0.08	2.60	1.65
0209BKB2U	Manhole/Inlet	6.29	9.30	1.50
0209BKB5U	Manhole/Inlet	6.84	9.65	1.50
0209BU2U	Manhole/Inlet	7.10	9.46	1.50
0209BV01U	Manhole/Inlet	7.14	9.49	1.50
0227A13U	Manhole/Inlet	7.34	9.73	1.20
0166A4U	Manhole/Inlet	7.23	11.54	1.65
0166A2U	Manhole/Inlet	7.09	11.28	1.65
0166A6U	Manhole/Inlet	7.41	11.50	1.50
0051B11U	Manhole/Inlet	7.62	9.49	0.90
0617D6U	Manhole/Inlet	9.59	14.40	1.20
0617D9U	Manhole/Inlet	10.45	14.00	1.05
0029D2U	Manhole/Inlet	-0.03	4.81	1.05
0202A5U	Manhole/Inlet	4.65	7.60	1.35
0243AA2U	Manhole/Inlet	1.03	3.38	0.90
0243A02U	Manhole/Inlet	-0.29	3.54	1.65
0237AK2U	Manhole/Inlet	3.89	5.27	0.90
0270A18U	Manhole/Inlet	7.09	10.37	1.50
0308B3U	Manhole/Inlet	6.85	8.40	1.05
0020A6U	Manhole/Inlet	1.97	3.43	1.05
0020A3U	Manhole/Inlet	1.65	3.14	1.20
0020A11U	Manhole/Inlet	2.03	3.95	1.05
0285A2U	Manhole/Inlet	5.23	8.03	0.90
0372AHB1U	Manhole/Inlet	9.05	11.22	1.20
0372AHB3U	Manhole/Inlet	9.27	11.07	1.05
0145A7U	Manhole/Inlet	6.62	8.74	0.90
0209BL4U	Manhole/Inlet	7.57	9.80	1.05
0127A2U	Manhole/Inlet	3.75	6.67	1.05
0617D5U	Manhole/Inlet	9.38	14.60	1.20
0046A2U	Manhole/Inlet	-0.46	2.40	1.05
0046A3U	Manhole/Inlet	-0.44	2.40	1.05
0046A4U	Manhole/Inlet	0.01	3.60	0.90
0135A9U	Manhole/Inlet	3.34	4.64	1.05
0305AA9U	Manhole/Inlet	5.16	6.50	0.90
0209B4U	Manhole/Inlet	5.18	8.78	1.65
0355D2U	Manhole/Inlet	4.82	7.48	1.05
0078A3U	Manhole/Inlet	1.34	3.42	0.90
0078A04U	Manhole/Inlet	2.17	4.01	0.90
0115G2U	Manhole/Inlet	0.30	2.73	0.90
0115H6U	Manhole/Inlet	1.34	3.45	1.20
0115HB1U	Manhole/Inlet	1.49	3.47	1.05
0115J3U	Manhole/Inlet	0.49	3.19	1.20
0115J4U	Manhole/Inlet	0.53	3.15	1.20
0078A004U	Manhole/Inlet	2.28	4.16	1.05
0115J5U	Manhole/Inlet	0.59	3.25	1.20
0115H4U	Manhole/Inlet	0.98	3.19	1.20
0115H3U	Manhole/Inlet	0.66	3.16	1.20
0115H2U	Manhole/Inlet	0.65	3.17	2.40
0115J9U	Manhole/Inlet	1.26	3.55	0.90
0115J8U	Manhole/Inlet	0.78	3.57	1.20

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0115J7U	Manhole/Inlet	0.62	3.58	1.20
0155AD4U	Manhole/Inlet	9.50	11.34	0.90
0155AD5U	Manhole/Inlet	9.52	11.51	0.90
0155AN1U	Manhole/Inlet	8.92	11.97	1.05
0155AN2U	Manhole/Inlet	9.15	12.16	1.05
0155AN4U	Manhole/Inlet	9.29	12.49	1.05
0155AN8U	Manhole/Inlet	9.72	11.74	0.90
0155AN10U	Manhole/Inlet	9.79	11.77	0.90
0155AN3U	Manhole/Inlet	9.16	12.12	1.05
0264K02U	Manhole/Inlet	0.10	2.45	0.90
0216A2U	Manhole/Inlet	4.67	5.90	1.20
0216A7U	Manhole/Inlet	4.86	7.42	1.20
0216A8U	Manhole/Inlet	4.95	7.36	1.20
0216A9U	Manhole/Inlet	4.98	6.96	1.20
0216AH1U	Manhole/Inlet	5.02	7.48	1.20
0216A5U	Manhole/Inlet	4.77	7.80	1.20
0216AH3U	Manhole/Inlet	5.10	6.13	0.90
0282A5U	Manhole/Inlet	2.41	3.93	0.75
0251Q9U	Manhole/Inlet	1.73	3.91	1.05
0251Q2U	Manhole/Inlet	1.37	4.42	1.05
0251Q6U	Manhole/Inlet	1.67	3.86	1.05
0251Q5U	Manhole/Inlet	1.52	4.23	1.05
0074C6U	Manhole/Inlet	1.65	3.74	1.05
0074C12U	Manhole/Inlet	1.92	4.26	1.05
0074C13U	Manhole/Inlet	1.97	3.89	2.00
0074C14U	Manhole/Inlet	1.98	4.05	2.00
0242A4U	Manhole/Inlet	0.02	2.66	1.20
0029AA2U	Manhole/Inlet	0.69	2.74	0.90
0029A2U	Manhole/Inlet	-0.58	3.23	1.20
0096D7U	Manhole/Inlet	1.19	2.58	0.90
0096D5U	Manhole/Inlet	1.07	2.69	1.20
0096D8U	Manhole/Inlet	1.29	3.17	0.90
0096D6U	Manhole/Inlet	1.13	2.53	0.90
0096C5U	Manhole/Inlet	1.00	2.63	1.05
0029AC1U	Manhole/Inlet	1.38	2.60	1.20
0243A10U	Manhole/Inlet	0.40	3.04	1.35
0243A12U	Manhole/Inlet	0.42	3.01	1.35
0243A13U	Manhole/Inlet	1.08	2.87	0.90
0243A15U	Manhole/Inlet	1.16	2.80	0.90
0096C3U	Manhole/Inlet	0.86	2.78	1.05
0290AZR3U	Manhole/Inlet	0.79	2.93	1.05
0266A2U	Manhole/Inlet	0.32	2.63	0.60
0177A2U	Manhole/Inlet	1.82	3.50	0.90
0243A5U	Manhole/Inlet	-0.11	3.28	1.35
0243A2U	Manhole/Inlet	-0.27	3.66	1.65
0243AA4U	Manhole/Inlet	1.68	3.40	0.90
0243A3U	Manhole/Inlet	-0.15	3.29	1.50
0249A10U	Manhole/Inlet	1.13	2.10	0.90
0290AD2U	Manhole/Inlet	0.07	2.48	1.35
0290A5U	Manhole/Inlet	-0.46	2.23	1.80
0290A2U	Manhole/Inlet	-0.88	2.23	3.60
0290AA2U	Manhole/Inlet	-0.29	2.00	1.50
0290AA3U	Manhole/Inlet	0.08	2.02	1.35
0290AA4U	Manhole/Inlet	0.26	2.08	1.05

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0290AA5U	Manhole/Inlet	0.28	2.14	1.05
0290AZR4U	Manhole/Inlet	0.97	3.14	1.05
0311A5U	Manhole/Inlet	0.38	2.77	0.90
0251M2U	Manhole/Inlet	2.71	5.25	1.05
0242A2U	Manhole/Inlet	-0.37	2.76	1.20
0290AZR1U	Manhole/Inlet	0.54	2.57	1.05
0307AD1U	Manhole/Inlet	4.26	5.30	0.90
0158C2U	Manhole/Inlet	0.49	3.18	0.90
0158C02U	Manhole/Inlet	0.47	2.79	0.90
0019A2U	Manhole/Inlet	2.53	5.37	1.50
0019A4U	Manhole/Inlet	2.79	6.60	1.50
0232A37U	Manhole/Inlet	3.81	4.91	0.90
0232A39U	Manhole/Inlet	3.87	5.02	0.90
0232A32U	Manhole/Inlet	3.17	4.67	0.90
0237AK3U	Manhole/Inlet	4.07	5.97	0.90
0237AK5U	Manhole/Inlet	4.48	6.14	0.90
0237AK4U	Manhole/Inlet	4.24	5.44	0.90
0237AB11U	Manhole/Inlet	3.43	5.29	0.90
0155B6U	Manhole/Inlet	8.57	11.12	1.05
0155AA9U	Manhole/Inlet	8.62	11.03	1.05
0237AB1U	Manhole/Inlet	2.48	4.32	1.20
0237AB12U	Manhole/Inlet	3.63	5.36	0.90
0237AB14U	Manhole/Inlet	3.73	5.38	0.90
0296A4U	Manhole/Inlet	1.80	2.93	0.90
0264A5U	Manhole/Inlet	0.79	2.81	1.05
0264A4U	Manhole/Inlet	0.49	2.91	0.90
0264A3U	Manhole/Inlet	0.23	2.85	0.90
0264A2U	Manhole/Inlet	-0.11	2.77	0.90
0290A10U	Manhole/Inlet	-0.31	2.52	1.50
0290A9U	Manhole/Inlet	-0.34	2.46	1.80
0251D2U	Manhole/Inlet	3.17	4.38	0.90
0251D3U	Manhole/Inlet	3.26	4.56	0.90
0251D4U	Manhole/Inlet	3.46	4.97	0.90
0019A5U	Manhole/Inlet	3.00	6.25	1.50
0019A6U	Manhole/Inlet	3.07	6.47	1.50
0019A7U	Manhole/Inlet	3.15	6.80	1.50
0019A8U	Manhole/Inlet	3.41	6.44	1.35
0203A2U	Manhole/Inlet	0.66	2.80	0.90
0203A03U	Manhole/Inlet	0.78	2.94	0.90
0158A7U	Manhole/Inlet	2.00	3.19	0.90
0158A6U	Manhole/Inlet	1.87	4.70	1.20
0158A5U	Manhole/Inlet	1.83	4.85	1.20
0158A4U	Manhole/Inlet	1.81	4.76	0.90
0296A1D	Outlet	1.39	2.00	0.45
0158B3U	Manhole/Inlet	1.40	3.10	0.90
0050A007U	Manhole/Inlet	2.47	3.70	0.90
0222A8U	Manhole/Inlet	2.29	4.93	1.20
0222A13U	Manhole/Inlet	2.44	4.63	1.20
0044C2U	Manhole/Inlet	2.19	3.12	0.90
0158A2U	Manhole/Inlet	1.70	3.52	0.90
0158A3U	Manhole/Inlet	1.78	4.65	0.90
0158A02U	Manhole/Inlet	1.68	3.11	0.90
0202A3U	Manhole/Inlet	4.55	7.98	1.35
0248A3U	Manhole/Inlet	4.60	6.40	0.90

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0248A5U	Manhole/Inlet	4.80	6.55	0.90
0248A7U	Manhole/Inlet	4.97	6.50	0.90
0290AD6U	Manhole/Inlet	1.04	2.05	0.60
0242AD1U	Manhole/Inlet	0.07	2.73	1.20
0029A5U	Manhole/Inlet	-0.05	2.32	1.20
0029AA1U	Manhole/Inlet	0.33	2.98	1.05
0243A9U	Manhole/Inlet	0.00	3.59	1.65
0243AK1U	Manhole/Inlet	0.15	3.35	0.90
0243AK2U	Manhole/Inlet	1.04	3.35	0.90
0243A7U	Manhole/Inlet	-0.06	3.01	1.35
0243AH1U	Manhole/Inlet	1.31	2.79	0.90
0243AA1U	Manhole/Inlet	0.42	3.50	0.90
0243AA3U	Manhole/Inlet	1.12	3.41	0.90
0111A3U	Manhole/Inlet	0.53	3.68	0.90
0111A2U	Manhole/Inlet	0.23	3.36	0.90
0287A2U	Manhole/Inlet	0.23	3.43	1.20
0287A4U	Manhole/Inlet	0.50	3.10	0.90
0164A1D	Outlet	0.17	3.00	1.80
Stockland 103/1	Manhole/Inlet	8.17	10.40	1.00
Stockland 103a/1	Manhole/Inlet	8.13	10.30	1.00
0009A1D	Outlet	0.02	3.57	1.80
0113A1D	Outlet	0.97	2.90	0.90
0242J1D	Outlet	-0.50	3.77	1.20
0242A1D	Outlet	-0.45	1.92	1.20
0068A1D	Outlet	4.80	6.60	1.20
0248A1D	Outlet	4.09	5.20	1.05
0248B1D	Outlet	4.60	5.60	0.90
0248B6U	Manhole/Inlet	4.80	5.78	0.90
0051B1D	Outlet	6.70	8.10	1.20
0051B1Da	Outlet	6.70	8.10	1.20
0061A1D	Outlet	6.15	9.00	1.05
0138A1D	Outlet	5.65	7.40	1.35
0155A1D	Outlet	6.27	7.52	1.20
0155A1D_2	Outlet	6.27	7.52	1.20
0166A1D	Outlet	6.68	8.50	1.65
0617D1D	Outlet	8.38	10.10	1.35
0009AF1D	Outlet	-0.50	1.25	1.50
0140A1Dc	Manhole/Inlet	2.17	3.50	2.40
0020A1D	Outlet	1.62	2.84	1.20
0144A1D	Outlet	1.65	2.90	1.05
0125B1D	Outlet	2.97	3.64	1.20
0074G1D	Outlet	2.49	4.44	2.10
0230A1D	Outlet	4.14	5.30	0.90
0035A1D	Outlet	6.30	7.50	0.90
0209C1D	Outlet	7.92	9.00	2.40
0227A1D	Outlet	5.48	7.20	1.20
0227A1Da	Outlet	5.48	6.43	1.20
0172A1D	Outlet	10.78	12.96	0.90
0011B1D	Outlet	11.98	14.06	0.90
0155AP1U	Manhole/Inlet	8.97	12.00	1.50
0035A1Da	Outlet	6.30	7.50	0.90
0138A25U	Manhole/Inlet	26.00	27.95	0.90
0251Q1D	Outlet	1.22	3.26	1.05
0074C1D	Outlet	1.41	2.43	1.05

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0251M1D	Outlet	2.49	4.07	1.05
0115H1D	Outlet	0.57	1.86	2.40
0177A1D	Outlet	-0.47	0.70	0.90
0266A1D	Outlet	0.08	1.60	0.60
0158C1D	Outlet	0.38	2.78	0.90
0158D1D	Outlet	0.46	2.67	0.90
0088A1D	Outlet	0.38	2.56	1.35
0088A1D_2	Outlet	0.38	2.45	1.50
0050A1D	Outlet	1.98	3.38	0.90
0050B1D	Outlet	1.99	3.28	0.75
0250A1D	Outlet	1.24	2.60	1.35
0264AG1U	Manhole/Inlet	1.25	2.64	0.90
0137A3U	Manhole/Inlet	0.66	3.36	2.10
0355D1D	Outlet	4.66	5.80	1.05
0311A1D	Outlet	-0.42	0.50	0.90
0070A1D	Outlet	7.36	9.00	1.20
0070B1D	Outlet	7.36	9.00	1.05
0127A1D	Outlet	3.70	5.50	1.05
0089A1D	Outlet	2.10	4.12	1.35
0145A1D	Outlet	4.34	8.50	1.80
0285A1D	Outlet	5.20	6.20	0.90
0145AB4U	Manhole/Inlet	6.21	8.20	1.50
0007B1D	Outlet	6.95	8.60	1.05
0209A1D	Outlet	4.72	6.60	1.65
0209B1D	Outlet	4.37	8.00	3.60
0209A1Da	Outlet	4.72	6.60	1.65
0307B1D	Outlet	3.57	4.80	0.90
0307E1D	Outlet	3.45	4.50	0.90
0044C1D	Outlet	2.01	3.82	0.90
0137A1D	Outlet	0.50	2.00	1.20
0222A1D	Outlet	1.93	3.61	1.20
0039A1D	Outlet	-0.09	2.27	1.35
0251N1D	Outlet	2.77	3.60	0.60
0023A1D	Outlet	8.26	10.99	1.50
0074H1D	Outlet	2.10	3.30	0.90
0139A1D	Outlet	-0.97	0.76	0.90
0237A1D	Outlet	2.38	3.74	3.00
0074B1D	Outlet	1.80	3.81	0.90
0239D1D	Outlet	0.39	2.28	1.05
0205D1D	Outlet	-0.22	1.60	1.65
0205C1D	Outlet	0.10	1.40	1.20
0264AE1U	Manhole/Inlet	1.25	2.68	0.90
0291A1D	Outlet	1.44	2.80	1.20
0176A1D	Outlet	4.09	7.33	1.80
0134AD1U	Manhole/Inlet	7.51	9.00	2.85
0123A1D	Outlet	0.26	2.60	1.20
0134A4U	Outlet	2.03	4.47	1.35
0134A4Ua	Outlet	2.03	4.47	1.35
0093A6U	Manhole/Inlet	7.08	9.20	1.80
0165A1D	Outlet	0.35	3.00	1.40
0165AA1U	Manhole/Inlet	3.07	4.00	0.80
0132A1D	Outlet	-0.43	4.83	1.35
0372A1D	Outlet	7.65	8.75	1.50
0206A1D	Outlet	-0.67	1.80	1.05

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0308B1D	Outlet	6.29	8.20	1.05
0044A4U	Manhole/Inlet	2.40	3.81	2.00
0044A6U	Manhole/Inlet	2.50	4.00	2.00
0158A1D	Outlet	0.29	2.15	0.90
0168A1D	Outlet	0.25	1.20	0.90
0039B1D	Outlet	-0.09	2.38	1.05
0059A1D	Outlet	-0.07	4.34	1.05
0093A1D	Outlet	2.31	3.30	2.40
0134A8U	Manhole/Inlet	4.79	6.31	1.25
0305A1D	Outlet	-0.81	0.81	1.05
0305A1Da	Outlet	-0.81	0.81	1.05
0249A1D	Outlet	-0.11	1.10	1.20
0205B1D	Outlet	-0.14	2.00	0.90
0078A1D	Outlet	-0.73	1.71	0.90
0245A1D	Outlet	1.01	3.00	1.05
0019A1Da	Outlet	2.51	6.00	1.50
0307A1D	Outlet	2.18	3.30	1.05
0164B1D	Outlet	-0.31	3.00	0.90
0251D1D	Outlet	3.15	4.20	0.90
0718A2U	Manhole/Inlet	7.25	9.57	3.35
0718A1D	Outlet	7.20	9.65	3.30
0264A1D	Outlet	-0.63	2.43	0.90
0264A1Da	Outlet	-0.63	2.54	0.90
0264K1D	Outlet	-0.34	1.06	0.90
0158B1D	Outlet	0.86	1.90	0.90
0074ZW1D	Outlet	2.40	4.06	1.20
0158A1Da	Outlet	0.31	2.08	0.90
0202A1D	Outlet	3.85	5.40	1.35
0290A1D	Outlet	-1.09	2.00	3.60
0243A1D	Outlet	-0.32	1.50	1.65
0111A1D	Outlet	0.23	3.09	0.90
0287A1D	Outlet	0.23	3.18	1.20
0115G1D	Outlet	0.18	2.20	0.90
0115G1Da	Outlet	0.18	2.20	0.90
0115E1D	Outlet	-0.73	1.26	0.60
0115J1Da	Outlet	0.31	1.40	1.05
0115J1D	Outlet	0.31	3.00	1.05
0282A02U	Outlet	2.31	5.00	0.75
0029A1D	Manhole/Inlet	-0.59	2.24	1.20
0096D1D	Outlet	0.71	2.15	1.20
0096C1D	Outlet	0.73	2.15	1.05
Node_Flinders	Manhole/Inlet	0.41	3.15	1.05
0158B1Da	Outlet	0.86	1.90	
0023A1Da	Outlet	8.26	10.99	
0029A0Da	Outlet	-0.60	2.00	
0029A007U	Manhole/Inlet	0.40	2.42	1.20
0088AB06U	Manhole/Inlet	1.88	3.40	1.00
0123A11U	Manhole/Inlet	9.52	10.89	1.20
0123A14U	Manhole/Inlet	14.32	15.53	1.20
0127A4U	Manhole/Inlet	4.15	6.19	1.20
0134A15U	Manhole/Inlet	11.20	12.77	1.20
0140A16U	Manhole/Inlet	3.74	5.05	1.00
0152A6U	Manhole/Inlet	3.73	6.31	1.00
0206A7U	Manhole/Inlet	6.15	8.46	1.20

Node ID	Node Type	Invert Level (m AHD)	Ground Level (m AHD)	Eqv. Diameter (m)
0209B39U	Manhole/Inlet	8.44	10.72	1.00
0209B48U	Manhole/Inlet	9.07	11.14	1.20
0209BG01U	Manhole/Inlet	6.22	9.02	1.00
0209BL1U	Manhole/Inlet	6.41	9.17	1.20
0209C2U	Manhole/Inlet	7.62	9.83	1.20
0209D10U	Manhole/Inlet	5.88	9.50	1.50
0251K2U	Manhole/Inlet	1.26	3.61	1.20
0251Q7U	Manhole/Inlet	1.72	3.90	1.20
0282A6U	Manhole/Inlet	2.41	3.86	1.20
Flinders 1/1	Manhole/Inlet	2.90	5.40	2.40
Flinders 1/2	Manhole/Inlet	2.83	5.31	2.40
Flinders 1/3	Manhole/Inlet	2.76	5.25	2.40
Flinders 1/4	Manhole/Inlet	2.69	5.17	2.40
Flinders 1/5	Manhole/Inlet	2.59	5.10	2.40
Flinders 1/6	Manhole/Inlet	2.48	4.90	2.40
Flinders 1/7	Manhole/Inlet	2.33	4.86	2.40
Flinders 1/8	Manhole/Inlet	2.06	4.50	2.40
Flinders 1/9	Manhole/Inlet	1.24	4.15	2.40
Flinders 1/10	Manhole/Inlet	1.13	4.02	3.00
Flinders 1/12	Manhole/Inlet	0.27	2.75	3.00
Flinders 1/13	Manhole/Inlet	-0.08	2.63	3.00
Flinders 1/Out	Outlet	-0.25	2.64	
Flinders 2/1	Manhole/Inlet	1.96	4.66	1.20
Stockland 104/1	Manhole/Inlet	8.00	10.24	1.00
Stockland PA	Manhole/Inlet	7.50	10.04	2.00
Stockland DB1	Basin	9.15	11.00	
Stockland DB2	Basin	8.30	10.50	
Barryman P/S Out	Manhole/Inlet	0.24	2.30	2.00
Barryman R/M 1	Manhole/Inlet	0.24	3.26	1.00
Barryman R/M OUT	Outlet	2.70	3.68	2.00
Barryman R/M 2	Manhole/Inlet	0.24	3.58	1.00
Barryman R/M 3	Manhole/Inlet	2.70	4.09	1.00
Albany P/S Out	Manhole/Inlet	2.70	4.50	1.00
Albany R/M 1	Manhole/Inlet	1.79	4.00	1.00
Albany R/M Out	Outlet	1.05	2.00	
Albany P/S Well	Manhole/Inlet	-4.80	2.36	5.00
Albany P/S In	Manhole/Inlet	1.60	2.47	1.00
Barryman P/S In	Manhole/Inlet	1.00	2.11	1.00
Barryman P/S Well	Manhole/Inlet	-4.42	2.11	6.00
Campbell P/S Well	Manhole/Inlet	-3.40	5.30	6.00
Campbell R/M 1	Manhole/Inlet	2.85	4.80	2.00
Campbell R/M Out	Outlet	2.20	3.00	
Campbell R/M Outa	Outlet	2.20	3.00	
Campbell P/S Out	Manhole/Inlet	2.70	4.99	1.50

Link Details

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
A	1	RCP	6.70	6.29	9.37	0.43	0.9	0	0	0.025	0209NC35U	0209BKB2U
B	3	RCBC	2.38	2.39	1.62	-0.43	0	3	1.35	0.025	0237A03U	0237A2U
43476_2	1	RCP	1.87	1.83	13.69	0.29	1.2	0	0	0.025	0158A6U	0158A5U
C	1	RCP	3.57	3.54	26.53	0.10	1.05	0	0	0.025	0307A11U	0307A10U
D	1	RCP	3.72	3.57	154.97	0.10	1.05	0	0	0.025	0307A12U	0307A11U
E	1	RCP	1.87	1.83	13.69	0.29	0.9	0	0	0.025	0158A6U	0158A5U
F	1	RCP	1.83	1.81	7.05	0.29	0.9	0	0	0.025	0158A5U	0158A4U
H	1	RCP	1.78	1.70	29.74	0.29	0.9	0	0	0.025	0158A3U	0158A2U
J	1	RCP	1.83	1.81	7.05	0.29	0.9	0	0	0.025	0158A5U	0158A4U
K	1	RCP	1.70	1.68	6.01	0.29	0.9	0	0	0.025	0158A2U	0158A02U
N	1	RCP	1.81	1.78	10.33	0.29	0.9	0	0	0.025	0158A4U	0158A3U
O	1	RCP	1.40	1.32	8.06	0.97	0.9	0	0	0.025	0158B3U	0158B2U
38969_2	1	RCP	4.29	2.90	51.08	2.71	0.9			0.025	0164A45U	0164A4U
Link_68	3	RCBC	5.17	3.51	107.94	1.54		1.2	1.2	0.025	0123A8U	0123A7U
46364	1	RCP	3.62	3.57	14.05	0.40	0.9			0.025	0232A36U	0232A35U
Link_101	1	RCP	0.40	0.27	28.92	0.44	0.6			0.025	0029A007U	0029A6U
Link_102	1	RCP	1.93	1.88	9.75	0.54	0.9			0.025	0088AB6U	0088AB06U
42212_2	3	RCBC	-0.96	-1.09	113.87	0.12		3.6	2.1	0.025	0290A1U	0290A1D
Link_3	1	RCP	0.50	-0.43	62.81	1.48	0.75			0.025	0026A2U	0026A1D
58240_2	1	RCP	2.56	2.03	98.66	0.54	1.35			0.025	0134A5U	0134A4U
P	1	RCP	1.17	1.15	7.71	0.28	0.9	0	0	0.025	0264AF1U	0264A10U
Q	3	RCBC	2.50	2.50	13.05	0.00	0	2.1	1.2	0.025	0074G2U	0135A1D
R	1	RCP	4.26	3.72	25.30	2.13	0.9	0	0	0.025	0307AD1U	0307A12U
T	1	RCP	0.21	-0.31	25.87	1.98	0.9	0	0	0.025	0164A01U	0164B1D
V	1	RCP	3.77	3.82	107.53	-0.05	1.05	0	0	0.025	0307A13U	0074G10U
X	3	RCBC	17.00	15.95	10.89	9.64	0	1.8	1.5	0.025	0270A000031U	0270A00031U
Y	1	RCP	1.34	0.21	57.30	1.98	0.9	0	0	0.025	0164A1U	0164A01U
Z	3	RCBC	15.95	15.90	9.26	0.54	0	1.8	1.5	0.025	0270A00031U	0270A0031U
AA	3	RCBC	15.70	15.70	6.22	0.00	0	1.8	1.5	0.025	0270A031U	0270A30U
BB	1	RCP	3.77	3.72	87.51	0.06	1.05	0	0	0.025	0307A13U	0307A12U
CC	3	RCBC	15.90	15.70	26.52	0.75	0	1.8	1.5	0.025	0270A0031U	0270A031U
Link_4	1	RCP	3.05	2.71	18.55	1.85	0.9			0.025	0009A5U	0009A05U
Link_5	1	RCP	2.71	1.94	22.79	2.01	0.9			0.025	0009A05U	0009A4U
43442	3	RCBC	2.00	1.57	11.39	3.77		2.4	0.45	0.025	0029AC10U	0029AC9U
352408_2	1	RCP	-0.05	-0.05	24.06	0.00	1.2			0.025	0029A5U	0029A05U
45053_2	1	RCP	1.85	1.74	16.28	0.68	0.9			0.025	0088AJ1U	0088A12U
105384	1	RCP	2.07	2.31	6.95	-3.50	1.2	0	0	0.025	0089A03U	0089A2U
105385	1	RCP	2.50	2.31	149.01	0.13	1.2	0	0	0.025	0089A3U	0089A2U
105386	1	RCP	2.31	2.10	39.64	0.53	1.35	0	0	0.025	0089A2U	0089A1Da
105388	1	RCP	2.31	2.10	39.31	0.54	1.35	0	0	0.025	0089A2U	0089A1D
107119	1	RCP	7.92	7.86	34.64	0.17	1.05	0	0	0.025	0007B011U	0007B10U
112303	3	RCBC	6.12	6.12	1.96	0.05	0	1.5	1.5	0.025	0209BKB1U	0209BK1U
112304	3	RCBC	6.29	6.12	90.75	0.18	0	1.5	1.5	0.025	0209BKB2U	0209BKB1U
112305	1	RCP	6.12	6.44	5.22	1.15	1.05	0	0	0.025	0209BKB1U	0209B13U
112306	1	RCP	6.60	6.41	1.70	9.79	1.2	0	0	0.025	0209BL02U	0209BK2U
112308	3	RCBC	6.84	6.55	136.05	0.22	0	1.5	1.5	0.025	0209BKB5U	0209BKB4U
112309	1	RCP	6.29	6.60	10.17	0.49	0.9	0	0	0.025	0209BKB2U	0209B14U
112378	3	RCBC	7.10	7.08	11.92	0.18	0	1.5	1.5	0.025	0209BU2U	0209BKB7U
112385	1	RCP	7.24	7.14	2.89	3.39	1.05	0	0	0.025	0209B21U	0209BV01U
112386	3	RCBC	7.14	7.10	13.34	0.30	0	1.5	1.5	0.025	0209BV01U	0209BU2U
43471_2	1	RCP	-0.05	-0.05	24.06	0.00	1.2			0.025	0029A5U	0029A05U
43479_2	1	RCP	-0.25	-0.58	211.16	0.16	1.2			0.025	0029A3U	0029A2U
43482_2	1	RCP	-0.58	-0.59	20.86	0.05	1.2			0.025	0029A2U	0029A1D
115168	1	RCP	6.85	6.29	20.32	2.76	1.05	0	0	0.025	0308B3U	0308B1D
117544	1	RCP	4.56	4.55	9.81	0.10	1.35	0	0	0.025	0202A04U	0202A3U
REst_Out1	1	RCP	-0.59	-0.60	88.69	0.01	1.2			0.025	0029A1D	0029A0D
REst_Out2	1	RCP	-0.59	-0.60	88.72	0.01	1.2			0.025	0029A1D	0029A0Da
45646_2	3	RCBC	19.80	19.70	15.15	0.66		1.05	1.05	0.025	0123A19U	0123A18U
45646_3	3	RCBC	19.70	18.71	54.05	1.84		1.05	1.05	0.025	0123A18U	0123A17U
Link_13	3	RCBC	2.40	2.37	99.55	0.02		0.75	1.05	0.025	0282A4U	0282A3U
58339	1	RCP	2.50	2.41	121.57	0.08	0.6			0.025	0282AB1U	0282A5U
0125B2U-1	3	RCBC	2.99	2.97	5.59	0.36	1.2	2.4	0.6	0.025	0125B2U	0125B1D
41816	1	RCP	1.90	1.56	67.54	0.51	1.2			0.025	0044A3U	0044A2U
41814	1	RCP	1.56	1.50	11.36	0.51	1.2			0.025	0044A2U	0044A1D
45025_2	1	RCP	2.33	2.28	9.78	0.46	0.9			0.025	0088A15U	008814U
45463_2	1	RCP	2.92	2.70	189.81	0.12	0.9			0.025	0050AJ3U	0050AJ2U
45463_3	1	RCP	2.70	2.66	31.26	0.11	0.9			0.025	0050AJ2U	0050AJ1U
32815_2	1	RCP	3.67	3.53	94.40	0.15	0.9			0.025	0071A6U	0071A5U
120187	3	RCBC	1.76	1.69	41.00	0.17	0	1.2	0.9	0.025	0020A4U	0020A04U
120234	3	RCBC	1.69	1.65	10.13	0.39	0	1.2	0.9	0.025	0020A04U	0020A3U
122472	1	RCP	5.12	4.97	14.33	1.08	1.5	0	0	0.025	0145AB1U	0145A2U
122476	1	RCP	5.84	5.12	159.36	0.45	1.5	0	0	0.025	0145AB2U	0145AB1U
122604	1	RCP	6.12	5.84	61.48	0.41	1.5	0	0	0.025	0145AB3U	0145AB2U
122608	1	RCP	6.21	6.12	19.63	0.37	1.5	0	0	0.025	0145AB4U	0145AB3U
47037_2	1	RCP	4.06	3.85	25.54	0.80	1.35			0.025	0202A2U	0202A1D
38608a	1	RCP	7.17	7.15	12.42	0.17	0.75			0.025	0051B6U	0051B5U
38608b	1	RCP	7.17	7.15	12.42	0.17	0.75			0.025	0051B6U	0051B5U
52900_2a	1	RCP	6.96	6.95	10.73	0.14	1.2			0.025	0227A09U	0227A8U
52900_2b	1	RCP	6.96	6.95	10.73	0.14	1.2			0.025	0227A09U	0227A8U
32776_2	1	RCP	8.29	8.28	4.02	0.22	1.2			0.025	0023A4U	0023A3U
32658_2	1	RCP	8.28	8.27	5.04	0.22	1.2			0.025	0023A3U	0023A2U
32587_2	1	RCP	8.27	8.26	5.23	0.19	1.5			0.025	0023A2U	0023A1Da
37808	1	RCP	9.25	8.49	70.08	1.09	0.75			0.025	0155ADB3U	0155A12U
36071_2	1	RCP	8.76	8.74	4.89	0.51	1.05			0.025	0209B43U	0209B42U
36039_2	1	RCP	8.06	8.04	13.74	0.12	1.2			0.025	0209B36U	0209B35U
122821	1	RCP	6.83	6.74	42.88	0.16	0.9	0	0	0.025	0145A10U	0145A9U
125277	1	RCP	7.47	7.40	32.12	0.16	1.05	0	0	0.025	0007B6U	0007B5U
128822	1	RCP	7.39	7.36	23.98	0.12	1.2	0	0	0.025	0070A2U	0070A1D
128951	1	RCP	7.49	7.36	19.90	0.66	1.05	0	0	0.025	0070B2U	0070B1D
128984	1	RCP	7.46	7.70	23.38	0.37	1.05	0	0	0.025	0070A6U	0070B4U
129941	1	RCP	8.80	8.49	26.80	1.13	0.9	0	0	0.025	0070A15U	0070A14U
130023	1	RCP	8.49	8.36	82.76	0.18	0.9	0	0	0.025	0070A14U	0070A13U
130076	1	RCP	8.15	7.98	24.09	0.09	0.9	0	0	0.025	0070A12U	0070A11U
130089	1	RCP	8.36	8.15	80.19	0.26	0.9	0	0	0.025	0070A13U	0070A12U
133221	1	RCP	5.11	4.89	63.03	0.35	1.65	0	0	0.025	0209B3U	0209A2U
133227	1	RCP	5.11	4.89	63.03	0.35	1.65	0	0	0.025	0209B3U	0209A2U
138615	1	RCP	6.09	6.10	4.64	23.39	1.2	0	0	0.025	0209BKA1U	0209B11U
138898	1	RCP	6.32	6.25	62.54	0.10	1.05	0	0	0.025	0209BG2U	0209BG1U
138973	3	RCBC	6.12	6.09	16.86	0.21	0	1.5	1.5	0.025	0209BK1U	0209BKA1U
139107	1	RCP	6.42	6.32	110.05	0.09	1.05	0	0	0.025	0209BG3U	0209BG2U
139288	1	RCP	6.66	6.42	101.21	0.23	0.9	0	0	0.025	0209BG4U	0209BG3U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
139398	1	RCP	6.77	6.66	113.48	0.10	0.9	0	0	0.025	0209BG5U	0209BG4U
144950	1	RCP	7.17	6.89	129.97	0.21	1.05	0	0	0.025	0209BL3U	0209BL2U
163243	3	RCBC	2.21	1.42	22.68	3.48	0	0.9	0.75	0.025	0206A6U	0206A5U
163638	3	RCBC	0.36	0.23	42.01	0.29	0	1.2	1.35	0.025	0206A03U	0206A2U
163644	1	RCP	0.73	0.58	6.00	2.42	1.2	0	0	0.025	0206A3U	0206A003U
164013	1	RCP	-0.14	-0.67	83.84	0.64	1.05	0	0	0.025	0206A02U	0206A1D
164042	1	RCP	0.17	-0.14	48.58	0.64	1.05	0	0	0.025	0206A002U	0206A02U
173782	1	RCP	7.26	7.24	21.23	0.09	1.05	0	0	0.025	0209B22U	0209B21U
173784	1	RCP	7.26	7.24	21.23	0.09	1.05	0	0	0.025	0209B22U	0209B21U
174325	1	RCP	8.04	7.94	62.31	0.16	1.2	0	0	0.025	0209B35U	0209B33U
175374	1	RCP	9.03	8.88	94.40	0.16	1.05	0	0	0.025	0209B47U	0209B44U
176427	1	RCP	9.90	9.81	65.04	0.14	0.9	0	0	0.025	0209B55U	0209B54U
176591	1	RCP	10.09	9.93	72.24	0.22	0.9	0	0	0.025	0209B58U	0209B57U
179624	1	RCP	7.92	7.71	25.73	0.25	0.9	0	0	0.025	0209C5U	0209C4U
193772	1	RCP	4.29	3.05	60.07	2.06	0.9	0	0	0.025	0009A6U	0009A5U
193778	1	RCP	5.14	4.29	45.23	1.89	0.9	0	0	0.025	0009A07U	0009A6U
195188	1	RCP	6.29	6.15	12.10	1.16	1.05	0	0	0.025	0061A2U	0061A1D
199188	1	RCP	3.24	3.24	31.71	0.00	1.2	0	0	0.025	0074G7U	0074G07U
199451	1	RCP	3.24	2.94	83.46	0.34	1.2	0	0	0.025	0074G07U	0074G6U
Link_112	1	RCP	9.15	9.07	50.08	0.16	1.05	0	0	0.025	0209B49U	0209B48U
199518	1	RCP	3.96	2.72	77.14	1.60	0.75	0	0	0.025	0113A3U	0113A2U
199521	1	RCP	4.42	3.96	28.95	1.60	0.75	0	0	0.025	0113A4U	0113A3U
199523	1	RCP	5.40	4.42	60.50	1.61	0.75	0	0	0.025	0113A5U	0113A4U
199931	1	RCP	3.04	2.87	11.58	0.16	0.75	0	0	0.025	0140A14U	0140A13U
199968	1	RCP	2.24	2.23	15.30	0.07	1.05	0	0	0.025	0140A04U	0140A3U
199989	1	RCP	2.50	2.47	21.66	0.14	1.05	0	0	0.025	0140A8U	0140A7U
199991	1	RCP	2.58	2.50	52.47	0.15	1.05	0	0	0.025	0140A9U	0140A8U
199996	1	RCP	2.59	2.58	9.41	0.15	1.05	0	0	0.025	0140A10U	0140A9U
200006	1	RCP	2.63	2.59	43.10	0.09	1.05	0	0	0.025	0140A11U	0140A10U
200187	1	RCP	2.21	2.17	20.93	0.16	0.9	0	0	0.025	0140A2U	0140A1Dc
200191	1	RCP	2.18	2.17	4.41	0.16	0.9	0	0	0.025	0140A02U	0140A1Dc
200197	1	RCP	2.21	2.18	16.77	0.16	0.9	0	0	0.025	0140A2U	0140A02U
200201	1	RCP	2.19	2.17	16.76	0.10	0.9	0	0	0.025	0140A002U	0140A1Dc
200206	1	RCP	2.21	2.19	4.41	0.36	0.9	0	0	0.025	0140A2U	0140A002U
200215	1	RCP	2.67	2.63	40.16	0.10	1.05	0	0	0.025	0140A12U	0140A11U
200220	1	RCP	2.87	2.67	30.85	0.16	0.9	0	0	0.025	0140A13U	0140A12U
209127	1	RCP	1.43	0.43	35.99	0.18	0.9	0	0	0.025	0132AP1U	0132A11U
209133	1	RCP	0.43	0.27	81.69	0.21	1.35	0	0	0.025	0132A11U	0132A10U
209138	1	RCP	0.27	0.08	167.35	0.11	1.35	0	0	0.025	0132A10U	0132A9U
209179	1	RCP	0.08	-0.06	49.60	0.28	1.35	0	0	0.025	0132A9U	0132A8U
209182	1	RCP	0.08	-0.06	49.60	0.28	1.35	0	0	0.025	0132A9U	0132A8U
32995	3	RCBC	3.07	3.02	11.20	0.47	0	1.87	0.75	0.025	0165AB1U	0165A4U
32997	3	RCBC	3.57	3.02	4.92	11.09	0	3	0.9	0.025	0165A5U	0165A4U
33016	3	RCBC	5.47	3.57	160.80	1.18	0	2.4	1.5	0.025	0093A2U	0093A02U
33018	3	RCBC	5.96	5.82	10.00	1.39	0	1.2	1.6	0.025	0093A3U	0093A03U
33028	3	RCBC	6.60	5.96	51.20	1.26	0	1.2	1.6	0.025	0093A4U	0093A3U
33032	3	RCBC	6.93	6.60	19.02	1.73	0	1.8	1.85	0.025	0093A5U	0093A4U
33035	3	RCBC	7.08	6.93	8.53	1.77	0	1.8	1.85	0.025	0093A6U	0093A5U
33045	1	RCP	1.10	0.26	61.07	1.37	1.2	0	0	0.025	0123A3U	0123A1D
80911_2	1	RCP	7.41	7.39	27.84	0.07	1.05			0.025	0209B25U	0209B24U
80912_2	1	RCP	7.34	7.39	5.29	-0.96	1.05			0.025	0209B025U	0209B24U
80341	1	RCP	7.61	7.22	45.44	0.86	0.75			0.025	0209BT2U	0209BT1U
33115	1	RCP	0.90	0.87	10.10	0.32	0.9	0	0	0.025	0158C7U	0158C6U
331235	1	RCP	3.38	3.08	84.26	0.36	0.9	0	0	0.025	0237AB011U	0237AB010U
331274	1	RCP	3.42	3.38	12.34	0.35	0.9	0	0	0.025	0237AB0011U	0237AB011U
33134	1	RCP	1.74	1.68	9.20	0.00	1.05	0	0	0.025	0144A4U	0144A3U
33136	1	RCP	1.68	1.65	20.04	0.17	1.05	0	0	0.025	0144A3U	0144A2U
33138	1	RCP	1.65	1.65	2.05	0.00	1.05	0	0	0.025	0144A2U	0144A1D
33152	1	RCP	3.21	2.53	37.03	1.84	0.9	0	0	0.025	0020A16U	0020A14U
33154	3	RCBC	1.20	1.17	40.00	0.09	0	2.1	0.6	0.025	0040A04U	0040A3U
33160	1	RCP	2.53	2.03	73.57	0.10	0.9	0	0	0.025	0020A14U	0020A11U
33258	1	RCP	9.31	9.29	10.61	0.16	1.2	0	0	0.025	0023A12U	0023A11U
33262	1	RCP	9.31	9.31	85.45	0.00	1.2	0	0	0.025	0023A13U	0023A12U
33268	1	RCP	9.50	9.31	106.24	0.19	1.2	0	0	0.025	0023A14U	0023A13U
33270	1	RCP	9.50	9.50	21.50	0.00	1.2	0	0	0.025	0023A15U	0023A14U
35349	1	RCP	7.22	7.09	53.83	0.25	0.75			0.025	0209BT1U	0209B20U
80295_2	1	RCP	6.94	6.87	48.84	0.13	1.2			0.025	0209B19U	0209B17U
80297_2	1	RCP	6.88	6.87	4.78	0.13	1.2			0.025	0209B18U	0209B17U
80091_2	1	RCP	8.01	6.69	66.72	1.98	1.2			0.025	0209B016U	0209B015U
80091_3	1	RCP	6.69	6.60	63.69	0.14	1.2			0.025	0209B015U	0209B14U
33274	1	RCP	9.86	9.50	43.36	0.82	1.2	0	0	0.025	0023A16U	0023A15U
33282	1	RCP	10.00	9.86	31.66	0.22	1.2	0	0	0.025	0023A17U	0023A16U
33344	1	RCP	10.26	10.00	62.26	0.24	1.05	0	0	0.025	0023A18U	0023A17U
33362	1	RCP	10.45	10.26	45.80	0.33	1.05	0	0	0.025	0023A19U	0023A18U
33402	1	RCP	2.65	2.58	48.67	0.15	0.9	0	0	0.025	0222A17U	0222A16U
33410	1	RCP	10.57	10.45	20.10	0.20	0.9	0	0	0.025	0023A20U	0023A19U
33424	1	RCP	11.26	10.57	1.71	0.59	0.9	0	0	0.025	0023AQ1U	0023A20U
33426	1	RCP	10.68	10.57	25.85	0.27	0.9	0	0	0.025	0023A21U	0023A20U
33586	1	RCP	7.45	7.39	52.52	0.12	1.2	0	0	0.025	0070A3U	0070A2U
33588	1	RCP	7.45	7.45	22.30	0.07	1.2	0	0	0.025	0070A4U	0070A3U
33590	1	RCP	7.45	7.45	2.44	0.49	1.2	0	0	0.025	0070A5U	0070A4U
33592	1	RCP	7.46	7.45	3.90	0.20	1.2	0	0	0.025	0070A6U	0070A5U
33594	1	RCP	7.47	7.46	4.04	0.20	1.2	0	0	0.025	0070A7U	0070A6U
80098_2	1	RCP	6.69	6.60	63.68	0.14	1.2			0.025	0209B15U	0209B14U
144950_2	1	RCP	6.89	6.60	88.36	0.33	1.05			0.025	0209BL2U	0209BL02U
80049_2	1	RCP	7.09	5.95	50.96	2.24	1.5			0.025	0209B10U	0209B9U
79717_2	1	RCP	5.81	5.63	184.56	0.10	1.5			0.025	0209B8U	0209B7U
33596	1	RCP	7.56	7.47	70.10	0.13	1.2	0	0	0.025	0070A8U	0070A7U
33602	1	RCP	7.80	7.56	19.27	0.44	1.05	0	0	0.025	0070A9U	0070A8U
33604	1	RCP	7.89	7.80	53.07	0.16	1.05	0	0	0.025	0070A10U	0070A9U
33606	1	RCP	7.98	7.89	42.44	0.17	1.05	0	0	0.025	0070A11U	0070A10U
33677	3	RCBC	1.55	1.46	110.99	0.08	0	0.9	0.6	0.025	0203A9U	0203A8U
33683	3	RCBC	1.46	1.38	99.89	0.08	0	0.9	0.6	0.025	0203A8U	0203A7U
179579	1	RCP	7.71	7.62	99.46	0.09	1.2	0	0	0.025	0209C4U	0209C2U
Link_115	1	RCP	7.62	7.61	4.02	0.09	1.2	0	0	0.025	0209C2U	0209B29U
33687	3	RCBC	1.38	1.38	5.70	0.08	0	0.9	0.6	0.025	0203A7U	0203A6U
336896	1	RCP	2.79	2.53	92.40	0.28	1.5	0	0	0.025	0019A4U	0019A2U
336986	1	RCP	3.00	2.79	143.92	0.15	1.5	0	0	0.025	0019A5U	0019A4U
337063	1	RCP	3.07	3.00	69.51	0.10	1.5	0	0	0.025	0019A6U	0019A5U
337103	1	RCP	3.15	3.07	25.41	0.31	1.5	0	0	0.025	0019A7U	0019A6U
33712	1	RCP	7.70	7.55	40.85	0.37	1.05	0	0	0.025	0070B4U	0070B3U
33719	1	RCP	7.94	7.46	31.44	0.32	1.05	0	0	0.025	0070B5U	0070A6U
337199	1	RCP	3.41	3.15	118.45	0.19	1.35	0	0	0.025	0019A8U	0019A7U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
33736	1	RCP	8.08	7.94	88.43	0.11	1.2	0	0	0.025	0070B6U	0070B5U
33738	1	RCP	8.16	8.08	46.45	0.11	1.2	0	0	0.025	0070B7U	0070B6U
33743	1	RCP	8.28	8.16	74.36	0.11	1.2	0	0	0.025	0070B8U	0070B7U
33745	1	RCP	8.41	8.28	73.00	0.12	1.2	0	0	0.025	0070B9U	0070B8U
33903	1	RCP	8.66	8.41	37.24	0.16	1.05	0	0	0.025	0070B10U	0070B9U
33912	1	RCP	8.80	8.66	56.00	0.18	1.05	0	0	0.025	0070B11U	0070B10U
33922	1	RCP	8.91	8.80	64.42	0.11	1.05	0	0	0.025	0070B12U	0070B11U
33961	1	RCP	9.05	8.99	65.83	0.08	1.2	0	0	0.025	0372AHB1U	0372AH2U
33969	1	RCP	9.27	9.26	10.01	0.11	1.05	0	0	0.025	0372AHB3U	0372AHB2U
33979	1	RCP	9.37	9.37	3.48	0.11	1.05	0	0	0.025	0372AHB6U	0372AHB5U
33995	1	RCP	8.99	8.91	24.19	0.31	1.2	0	0	0.025	0372AH2U	0070B12U
34050	1	RCP	4.97	4.34	257.29	0.24	1.8	0	0	0.025	0145A2U	0145A1D
34074	1	RCP	5.86	4.97	63.98	0.45	1.05	0	0	0.025	0145A3U	0145A2U
34078	1	RCP	5.91	5.86	20.11	0.25	1.05	0	0	0.025	0145A4U	0145A3U
34088	1	RCP	6.16	5.91	88.99	0.28	1.05	0	0	0.025	0145A5U	0145A4U
34108	1	RCP	6.46	6.16	74.07	0.20	0.9	0	0	0.025	0145A6U	0145A5U
34110	1	RCP	6.62	6.46	77.37	0.21	0.9	0	0	0.025	0145A7U	0145A6U
34120	1	RCP	6.71	6.62	50.43	0.17	0.9	0	0	0.025	0145A8U	0145A7U
34124	1	RCP	6.74	6.71	17.46	0.16	0.9	0	0	0.025	0145A9U	0145A8U
34276	1	RCP	7.13	6.95	82.94	0.22	1.05	0	0	0.025	0007B2U	0007B1D
34278	1	RCP	7.22	7.13	60.96	0.15	1.05	0	0	0.025	0007B3U	0007B2U
34280	1	RCP	7.31	7.22	57.29	0.16	1.05	0	0	0.025	0007B4U	0007B3U
34282	1	RCP	7.40	7.31	65.77	0.13	1.05	0	0	0.025	0007B5U	0007B4U
34286	1	RCP	7.57	7.47	69.64	0.12	1.05	0	0	0.025	0007B7U	0007B6U
34288	1	RCP	7.66	7.57	31.55	0.16	1.05	0	0	0.025	0007B8U	0007B7U
34290	1	RCP	7.76	7.66	43.64	0.15	1.05	0	0	0.025	0007B9U	0007B8U
34292	1	RCP	7.86	7.76	66.47	0.14	1.05	0	0	0.025	0007B10U	0007B9U
34294	1	RCP	7.99	7.92	39.10	0.19	1.05	0	0	0.025	0007B11U	0007B011U
34302	1	RCP	8.01	7.99	20.55	0.08	1.05	0	0	0.025	0007B12U	0007B11U
Link_107	1	RCP	4.01	3.74	13.59	1.95	0.6	0	0	0.025	0140A17U	0140A16U
46878	1	RCP	3.74	3.04	36.04	1.95	0.6	0	0	0.025	0140A16U	0140A14U
49914	3	RCBC	2.50	2.49	26.52	0.05	0	2.1	1.2	0.025	0135A1D	0074G1D
49916	1	RCP	2.50	2.50	27.50	0.00	1.2	0	0	0.025	0074G3U	0074G2U
49918	1	RCP	2.73	2.50	37.80	0.60	1.2	0	0	0.025	0074G4U	0074G3U
49922	1	RCP	2.94	2.73	54.06	0.35	1.2	0	0	0.025	0074G6U	0074G4U
49934	1	RCP	4.79	4.74	46.39	0.11	1.35	0	0	0.025	0202A7U	0202A6U
49944	1	RCP	4.88	4.79	93.02	0.10	1.35	0	0	0.025	0202A8U	0202A7U
49948	1	RCP	4.89	4.88	5.28	0.10	1.2	0	0	0.025	0202A9U	0202A8U
49954	1	RCP	4.92	4.89	13.10	0.21	1.2	0	0	0.025	0202A10U	0202A9U
49958	1	RCP	4.96	4.92	19.74	0.21	1.2	0	0	0.025	0202A11U	0202A10U
49962	1	RCP	5.12	4.96	76.37	0.21	1.2	0	0	0.025	0202A12U	0202A11U
49966	1	RCP	5.15	5.12	17.33	0.21	1.05	0	0	0.025	0202A13U	0202A12U
49972	1	RCP	5.17	5.15	7.19	0.21	1.05	0	0	0.025	0202A14U	0202A13U
49978	1	RCP	5.42	5.17	76.43	0.33	1.05	0	0	0.025	0202A16U	0202A14U
49982	1	RCP	5.48	5.42	16.94	0.33	0.9	0	0	0.025	0202A17U	0202A16U
49988	1	RCP	5.50	5.48	6.69	0.33	0.9	0	0	0.025	0202A18U	0202A17U
49992	1	RCP	5.66	5.50	74.72	0.21	0.9	0	0	0.025	0202A19U	0202A18U
49996	1	RCP	5.68	5.66	26.99	0.07	0.9	0	0	0.025	0202A20U	0202A19U
50091	1	RCP	3.38	3.35	33.00	0.09	1.5	0	0	0.025	0301A2U	0301A1D
50093	1	RCP	3.47	3.38	100.00	0.09	1.5	0	0	0.025	0301A3U	0301A2U
50095	1	RCP	3.56	3.47	83.50	0.11	1.5	0	0	0.025	0301A4U	0301A3U
50097	1	RCP	3.64	3.59	55.43	0.09	1.5	0	0	0.025	0301A5U	0301A005U
50227	1	RCP	5.23	5.20	15.79	0.19	0.9	0	0	0.025	0285A2U	0285A1D
50229	1	RCP	5.40	5.23	83.40	0.20	0.9	0	0	0.025	0285A3U	0285A2U
50322	1	RCP	1.07	0.43	27.09	2.33	0.9	0	0	0.025	0132A12U	0132A11U
50328	1	RCP	1.18	1.07	34.11	0.35	0.9	0	0	0.025	0132A13U	0132A12U
50794	1	RCP	2.30	2.21	58.87	0.15	0.9	0	0	0.025	0074H3U	0074H2U
51068	1	RCP	1.82	-0.47	205.07	1.11	0.9	0	0	0.025	0177A2U	0177A1D
51070	1	RCP	2.51	1.82	61.88	1.11	0.9	0	0	0.025	0177A3U	0177A2U
51072	1	RCP	2.90	2.51	34.29	1.14	0.9	0	0	0.025	0177A4U	0177A3U
51074	1	RCP	3.73	2.90	72.10	1.15	0.75	0	0	0.025	0177A5U	0177A4U
51076	1	RCP	3.80	3.73	6.33	1.15	0.6	0	0	0.025	0177A6U	0177A5U
51508	1	RCP	3.34	3.24	94.43	0.11	1.2	0	0	0.025	0074G8U	0074G7U
51605	1	RCP	3.50	3.34	56.84	0.29	1.05	0	0	0.025	0074G9U	0074G8U
51611	1	RCP	3.82	3.50	108.72	0.29	1.05	0	0	0.025	0074G10U	0074G9U
51715	1	RCP	4.35	4.09	81.99	0.27	1.05	0	0	0.025	0248A2U	0248A1D
51723	1	RCP	4.60	4.35	53.71	0.47	0.9	0	0	0.025	0248A3U	0248A2U
51729	1	RCP	4.80	4.60	58.03	0.34	0.9	0	0	0.025	0248A5U	0248A3U
51741	1	RCP	4.97	4.80	36.69	0.46	0.9	0	0	0.025	0248A7U	0248A5U
51745	1	RCP	5.27	4.97	84.62	0.35	0.9	0	0	0.025	0248A8U	0248A7U
51773	1	RCP	2.40	2.30	136.20	0.07	0.9	0	0	0.025	0074H4U	0074H3U
51836	1	RCP	4.62	4.60	12.19	0.14	0.9	0	0	0.025	0248B2U	0248B1D
51838	1	RCP	4.63	4.62	8.07	0.14	0.9	0	0	0.025	0248B3U	0248B2U
51840	1	RCP	4.75	4.63	90.41	0.14	0.75	0	0	0.025	0248B4U	0248B3U
51842	1	RCP	4.77	4.75	13.17	0.14	0.9	0	0	0.025	0248B5U	0248B4U
51844	1	RCP	4.80	4.77	9.75	0.31	0.9	0	0	0.025	0248B6U	0248B5U
51865	1	RCP	7.99	7.79	106.82	0.19	1.5	0	0	0.025	0166A10U	0166A8U
51868	1	RCP	8.60	8.35	103.92	0.23	1.2	0	0	0.025	0166AMA1U	0166AM1U
51870	1	RCP	8.76	8.60	0.98	1.02	1.2	0	0	0.025	0166AMA2U	0166AMA1U
36649	3	RCBC	1.57	1.40	37.34	0.47	0	0.6	0.6	0.025	0264KA4U	0264KA3U
36653	3	RCBC	1.66	1.57	18.36	0.47	0	0.6	0.6	0.025	0264KA5U	0264KA4U
34318	1	RCP	8.13	8.01	82.59	0.15	1.05	0	0	0.025	0007B13U	0007B12U
34370	1	RCP	8.71	8.13	30.73	0.39	0.9	0	0	0.025	0007B14U	0007B13U
34392	1	RCP	2.19	2.18	8.18	0.12	1.05	0	0	0.025	0307A2U	0307A1D
34394	1	RCP	2.32	2.19	85.65	0.16	1.05	0	0	0.025	0307A3U	0307A2U
34396	1	RCP	2.56	2.32	152.40	0.16	1.05	0	0	0.025	0307A4U	0307A3U
34398	1	RCP	2.80	2.56	152.40	0.16	1.05	0	0	0.025	0307A5U	0307A4U
34400	1	RCP	3.04	2.80	152.40	0.16	1.05	0	0	0.025	0307A6U	0307A5U
34402	1	RCP	3.27	3.04	152.40	0.16	1.05	0	0	0.025	0307A7U	0307A6U
34404	1	RCP	3.51	3.27	152.40	0.16	1.05	0	0	0.025	0307A8U	0307A7U
34406	1	RCP	2.53	2.51	35.40	0.06	1.5	0	0	0.025	0019A2U	0019A1Da
34408	1	RCP	2.53	2.51	35.46	0.06	1.5	0	0	0.025	0019A2U	0019A1D
34411	3	RCBC	3.49	3.25	148.78	0.16	0	2.1	1.35	0.025	0237A10U	0237A9U
34413	1	RCP	2.79	2.53	92.40	0.28	1.5	0	0	0.025	0019A4U	0019A2U
34418	1	RCP	3.49	2.79	38.44	0.23	0.9	0	0	0.025	0019AE1U	0019A4U
34455	1	RCP	3.59	3.49	51.22	0.19	1.2	0	0	0.025	0237AK1U	0237A10U
34510	1	RCP	6.48	6.29	38.84	0.33	1.05	0	0	0.025	0061A3U	0061A2U
34512	1	RCP	6.81	6.48	2.16	15.25	1.05	0	0	0.025	0061A4U	0061A3U
34516	1	RCP	4.89	4.72	138.76	0.12	1.65	0	0	0.025	0209A2U	0209A1Da
34720	1	RCP	6.78	6.01	78.59	0.98	1.05	0	0	0.025	0209BB4U	0209BB3U
34722	1	RCP	6.31	6.78	76.77	-0.61	1.05	0	0	0.025	0209BB5U	0209BB4U
34742	1	RCP	6.38	6.31	68.85	0.11	1.05	0	0	0.025	0209BB6U	0209BB5U
34750	1	RCP	6.46	6.38	75.42	0.10	1.05	0	0	0.025	0209BB7U	0209BB6U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
34752	1	RCP	6.52	6.46	69.21	0.10	1.05	0	0	0.025	0209BB8U	0209BB7U
34758	1	RCP	6.60	6.52	85.41	0.09	1.05	0	0	0.025	0209BB9U	0209BB8U
34824	1	RCP	6.65	6.60	36.14	0.08	1.05	0	0	0.025	0209BB10U	0209BB9U
34846	1	RCP	6.80	6.65	21.77	0.09	0.9	0	0	0.025	0209BB11U	0209BB10U
34851	1	RCP	6.91	6.80	123.73	0.09	0.9	0	0	0.025	0209BB12U	0209BB11U
34886	1	RCP	6.96	6.85	87.97	0.12	0.9	0	0	0.025	0209BE2U	0209BE1U
34900	1	RCP	6.97	6.96	72.31	0.02	0.9	0	0	0.025	0209BE3U	0209BE2U
34910	1	RCP	7.01	6.97	83.08	0.05	0.9	0	0	0.025	0209BE4U	0209BE3U
34930	1	RCP	3.59	3.49	51.22	0.19	0.9	0	0	0.025	0237AK1U	0237A10U
350114	1	RCP	2.48	2.44	33.84	0.15	0.9	0	0	0.025	0222A014U	0222A13U
350671	1	RCP	8.31	7.92	72.21	0.46	0.9	0	0	0.025	0209C6U	0209C5U
35095	1	RCP	7.57	7.17	145.84	0.28	1.05	0	0	0.025	0209BL4U	0209BL3U
35099	1	RCP	7.64	7.57	30.52	0.12	1.05	0	0	0.025	0209BL5U	0209BL4U
35101	1	RCP	7.66	7.64	20.79	0.13	1.05	0	0	0.025	0209BL6U	0209BL5U
35145	1	RCP	8.38	7.66	46.65	0.86	0.9	0	0	0.025	0209BL8U	0209BL6U
35151	1	RCP	2.50	2.07	142.14	0.30	1.2	0	0	0.025	0089A3U	0089A03U
79717_3	1	RCP	5.63	5.56	66.09	0.10	1.5			0.025	0209B7U	0209B6U
35153	1	RCP	2.60	2.50	45.07	0.22	1.2	0	0	0.025	0089A4U	0089A3U
35155	1	RCP	2.79	2.60	88.09	0.22	1.2	0	0	0.025	0089A5U	0089A4U
35157	1	RCP	3.06	2.79	91.45	0.29	1.2	0	0	0.025	0089A6U	0089A5U
35159	1	RCP	3.38	3.06	104.86	0.30	1.35	0	0	0.025	0089A7U	0089A6U
35161	1	RCP	4.30	3.38	111.31	0.83	1.05	0	0	0.025	0089AB1U	0089A7U
35167	1	RCP	4.85	4.30	65.98	0.83	0.9	0	0	0.025	0089AB2U	0089AB1U
352408	1	RCP	-0.05	-0.25	114.80	0.18	1.2	0	0	0.025	0029A05U	0029A4U
353373	1	RCP	8.62	8.57	6.08	0.44	1.05	0	0	0.025	0155AA9U	0155B6U
35489	1	RCP	7.78	7.61	132.21	0.12	1.05	0	0	0.025	0209B30U	0209B29U
35542	1	RCP	7.89	7.88	18.75	0.05	1.05	0	0	0.025	0209B32U	0209B31U
58298_2	1	RCP	3.91	4.13	80.34	-0.28	0.9			0.025	0237A013U	0237A12U
33979_2	1	RCP	9.37	9.37	4.99	0.10	1.05			0.025	0372AHB5U	0372AHB4U
Link_59	1	RCP	9.37	9.27	65.40	0.15	1.05			0.025	0372AHB4U	0372AHB3U
33969_2	1	RCP	9.26	9.05	9.46	2.17	1.05			0.025	0372AHB2U	0372AHB1U
33712_2	1	RCP	7.55	7.49	15.60	0.37	1.05			0.025	0070B3U	0070B2U
80939_2	1	RCP	7.88	7.78	66.77	0.15	1.05			0.025	0209B032U	0209B30U
35595	1	RCP	8.49	7.89	91.43	0.12	0.9	0	0	0.025	0209BZQ1U	0209B32U
35599	1	RCP	8.58	8.49	49.37	0.12	0.9	0	0	0.025	0209BZQ2U	0209BZQ1U
35605	1	RCP	8.64	8.58	48.17	0.13	0.9	0	0	0.025	0209BZQ3U	0209BZQ2U
35611	3	RCBC	1.30	1.28	69.18	0.03	0	1.2	0.6	0.025	0040A6U	0040A5U
35642	1	RCP	1.04	0.15	129.75	0.69	0.9	0	0	0.025	0243AK2U	0243AK1U
356434	1	RCP	0.78	0.66	16.41	0.74	0.9	0	0	0.025	0203A03U	0203A2U
35648	1	RCP	0.15	0.00	21.54	0.69	0.9	0	0	0.025	0243AK1U	0243A9U
35660	3	RCBC	1.58	1.57	33.90	0.03	0	0.9	0.6	0.025	0243A18U	0243A17U
35664	3	RCBC	1.57	1.56	3.81	0.29	0	0.9	0.6	0.025	0243A17U	0243A16U
35666	3	RCBC	1.56	1.16	13.69	0.07	0	0.9	0.6	0.025	0243A16U	0243A15U
209200	1	RCP	-0.06	-0.43	378.29	0.10	1.35	0	0	0.025	0132A8U	0132A2U
209202	1	RCP	-0.06	-0.43	378.29	0.10	1.35	0	0	0.025	0132A8U	0132A2U
209572	1	RCP	9.78	9.73	23.44	0.21	0.9	0	0	0.025	0165B7U	0165B6U
209727	3	RCBC	7.46	7.03	61.80	0.69	0	2.85	1.425	0.025	0134A10U	0134A9U
209744	1	RCP	4.79	4.22	50.95	0.58	1.25	0	0	0.025	0134A8U	0134A6U
209745	1	RCP	4.79	4.22	50.95	0.58	1.25	0	0	0.025	0134A8U	0134A6U
209746	1	RCP	4.79	4.22	50.95	0.58	1.25	0	0	0.025	0134A8U	0134A6U
210425	3	RCBC	5.82	5.47	29.60	1.18	0	1.2	1.6	0.025	0093A03U	0093A2U
212559	1	RCP	3.13	2.29	188.87	0.44	1.2	0	0	0.025	0152A2U	0152A1D
250708	1	RCP	2.59	2.55	31.26	0.13	1.05	0	0	0.025	0135A4U	0135A3U
262310	1	RCP	1.06	1.03	21.44	0.09	0.9	0	0	0.025	0096C7U	0096C6U
262314	1	RCP	1.13	1.06	19.53	0.26	0.9	0	0	0.025	0096C8U	0096C7U
262316	1	RCP	0.83	0.73	49.04	0.21	1.05	0	0	0.025	0096C2U	0096C1D
262319	1	RCP	0.86	0.83	19.59	0.16	1.05	0	0	0.025	0096C3U	0096C2U
262323	1	RCP	0.88	0.86	14.45	0.07	1.05	0	0	0.025	0096C4U	0096C3U
262325	1	RCP	1.00	0.88	60.21	0.20	1.05	0	0	0.025	0096C5U	0096C4U
262328	1	RCP	1.03	1.00	21.84	0.09	1.05	0	0	0.025	0096C6U	0096C5U
262432	1	RCP	1.13	1.07	48.88	0.08	0.9	0	0	0.025	0096D6U	0096D5U
80920_2	1	RCP	7.60	7.51	57.88	0.15	1.05			0.025	0209B28U	0209B27U
80920_3	1	RCP	7.51	7.50	21.92	0.04	1.05			0.025	0209B27U	0209B26U
Hopkins_o	3	RCBC	2.17	2.17	1.24	0.00		2.4	0.9	0.025	0140A1Dc	0140A1Db
35542_2	1	RCP	7.88	7.78	66.77	0.15	1.05			0.025	0209B31U	0209B30U
262433	1	RCP	1.19	1.13	32.89	0.12	0.9	0	0	0.025	0096D7U	0096D6U
262434	1	RCP	1.29	1.19	42.34	0.19	0.9	0	0	0.025	0096D8U	0096D7U
262435	1	RCP	0.84	0.71	52.18	0.26	1.2	0	0	0.025	0096D2U	0096D1D
262436	1	RCP	0.90	0.84	30.57	0.13	1.2	0	0	0.025	0096D3U	0096D2U
36317	1	RCP	4.22	3.51	48.70	1.47	1.35	0	0	0.025	0134A6U	0134A06U
36319	1	RCP	4.22	3.51	48.70	1.47	1.35	0	0	0.025	0134A6U	0134A06U
36475	1	RCP	4.42	4.08	31.80	1.08	0.9	0	0	0.025	0305AA7U	0305A7U
36580	1	RCP	6.26	5.62	41.70	1.54	1.2	0	0	0.025	0160A4U	0160A3U
36582	1	RCP	5.62	5.62	6.93	0.00	1.2	0	0	0.025	0160A3U	0160A2U
36592	1	RCP	5.62	-0.16	298.71	1.94	1.2	0	0	0.025	0160A2U	0160A1D
36621	1	RCP	0.41	0.10	57.05	0.56	0.9	0	0	0.025	0264K2U	0264K02U
36632	3	RCBC	0.77	0.55	46.00	0.48	0	0.9	0.9	0.025	0264K4U	0264K3U
36634	1	RCP	0.55	0.41	26.24	0.53	0.9	0	0	0.025	0264K3U	0264K2U
36636	1	RCP	0.10	-0.34	78.51	0.56	0.9	0	0	0.025	0264K02U	0264K1D
36639	3	RCBC	0.86	0.77	18.94	0.47	0	0.6	0.6	0.025	0264KA1U	0264K4U
36641	3	RCBC	1.16	0.86	65.47	0.45	0	0.6	0.6	0.025	0264KA2U	0264KA1U
36647	3	RCBC	1.40	1.16	53.01	0.45	0	0.6	0.6	0.025	0264KA3U	0264KA2U
36704	1	RCP	1.25	1.20	7.33	0.65	0.9	0	0	0.025	0264AE1U	0264A12U
36706	1	RCP	1.20	1.17	5.01	0.65	1.05	0	0	0.025	0264A12U	0264A11U
36708	1	RCP	1.25	1.17	5.49	1.46	0.9	0	0	0.025	0264AG1U	0264A11U
36710	1	RCP	1.17	1.15	21.36	0.10	1.05	0	0	0.025	0264A11U	0264A10U
36712	1	RCP	1.15	1.11	15.08	0.28	1.05	0	0	0.025	0264A10U	0264A9U
36714	1	RCP	1.11	1.06	12.46	0.38	1.05	0	0	0.025	0264A9U	0264A8U
36718	1	RCP	1.06	1.05	2.00	0.39	1.05	0	0	0.025	0264A8U	0264A7U
36720	1	RCP	1.05	1.00	29.58	0.17	1.05	0	0	0.025	0264A7U	0264A6U
36722	1	RCP	1.00	0.79	111.84	0.19	1.05	0	0	0.025	0264A6U	0264A5U
36797	1	RCP	2.90	2.34	20.10	2.77	1.2	0	0	0.025	0242JA1U	0242J2U
36799	1	RCP	2.34	-0.50	102.40	2.77	1.2	0	0	0.025	0242J2U	0242J1D
36813	1	RCP	0.07	0.02	46.58	0.10	1.2	0	0	0.025	0242AD1U	0242A4U
36821	1	RCP	0.02	-0.29	111.81	0.28	1.2	0	0	0.025	0242A4U	0242A3U
36831	1	RCP	-0.29	-0.37	31.26	0.26	1.2	0	0	0.025	0242A3U	0242A2U
36833	1	RCP	-0.37	-0.45	27.83	0.26	1.2	0	0	0.025	0242A2U	0242A1D
36846	1	RCP	2.42	2.38	129.35	0.03	0.9	0	0	0.025	0050A8U	0050A07U
36889	1	RCP	4.39	4.13	112.17	0.20	0.9	0	0	0.025	0237A13U	0237A12U
36890	1	RCP	4.39	4.13	112.17	0.20	0.9	0	0	0.025	0237A13U	0237A12U
36910	3	RCBC	3.00	2.99	38.16	0.03	0	1.2	0.6	0.025	0125B3U	0125B2U
36912	3	RCBC	3.13	3.00	73.55	0.18	0	1.2	0.6	0.025	0125B5U	0125B3U
36970	1	RCP	4.43	4.42	0.50	1.08	0.9	0	0	0.025	0305AA8U	0305AA7U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
36990	1	RCP	5.13	4.23	58.63	1.55	0.9	0	0	0.025	0305A10U	0305A9U
36994	1	RCP	4.23	4.20	1.56	1.55	0.9	0	0	0.025	0305A9U	0305A8U
36998	1	RCP	4.20	4.08	7.77	1.55	0.9	0	0	0.025	0305A8U	0305A7U
37010	1	RCP	4.08	2.78	47.01	2.78	0.9	0	0	0.025	0305A7U	0305A6U
37016	1	RCP	2.78	1.23	55.69	2.78	0.9	0	0	0.025	0305A6U	0305A5U
37018	1	RCP	1.23	1.05	46.94	0.38	0.9	0	0	0.025	0305A5U	0305A3U
37020	1	RCP	1.23	1.11	30.53	0.40	0.9	0	0	0.025	0305A5U	0305A4U
37025	1	RCP	1.11	1.05	16.42	0.35	0.9	0	0	0.025	0305A4U	0305A3U
37036	1	RCP	1.05	-0.49	37.23	4.14	0.9	0	0	0.025	0305A3U	0305A2U
370368	1	RCP	-0.43	-0.43	6.63	0.05	1.35	0	0	0.025	0132A2U	0132A1Da
370372	1	RCP	-0.43	-0.43	6.56	0.09	1.35	0	0	0.025	0132A2U	0132A1D
37038	1	RCP	1.05	-0.49	37.23	4.14	0.9	0	0	0.025	0305A3U	0305A2U
37039	1	RCP	-0.49	-0.81	94.58	0.34	1.05	0	0	0.025	0305A2U	0305A1Da
37041	1	RCP	-0.49	-0.81	94.58	0.34	1.05	0	0	0.025	0305A2U	0305A1D
37042	1	RCP	1.16	0.20	42.73	2.25	1.65	0	0	0.025	0270A3U	0270A03U
37048	1	RCP	0.19	-0.95	156.01	0.73	1.8	0	0	0.025	0270A2U	0270A1D
37053	1	RCP	6.19	6.15	11.76	0.34	0.75	0	0	0.025	0113A9U	0113A7U
37349	1	RCP	3.89	3.89	0.45	-0.88	0.9	0	0	0.025	0237AK03U	0237AK2U
262437	1	RCP	0.98	0.90	64.32	0.13	1.2	0	0	0.025	0096D4U	0096D3U
262438	1	RCP	1.07	0.98	75.89	0.08	1.2	0	0	0.025	0096D5U	0096D4U
268325	1	RCP	8.49	8.38	58.48	0.19	1.35	0	0	0.025	0617D2U	0617D1D
268336	1	RCP	8.63	8.49	33.52	0.00	1.35	0	0	0.025	0617D3U	0617D2U
268339	1	RCP	8.82	8.63	62.69	0.23	1.35	0	0	0.025	0617D4U	0617D3U
268373	1	RCP	9.38	8.82	89.35	0.46	1.2	0	0	0.025	0617D5U	0617D4U
268397	1	RCP	9.59	9.38	62.81	0.28	1.2	0	0	0.025	0617D6U	0617D5U
268538	1	RCP	9.93	9.59	105.24	0.29	1.2	0	0	0.025	0617D7U	0617D6U
268556	1	RCP	10.18	9.93	99.97	0.22	1.2	0	0	0.025	0617D8U	0617D7U
270563	1	RCP	11.17	10.45	14.99	1.10	0.9	0	0	0.025	0617DE1U	0617D9U
270567	1	RCP	11.36	11.17	150.61	0.12	0.9	0	0	0.025	0617DE2U	0617DE1U
270842	1	RCP	10.99	10.45	135.54	0.18	0.9	0	0	0.025	0617D10U	0617D9U
270844	1	RCP	11.10	10.99	23.56	0.14	0.9	0	0	0.025	0617D11U	0617D10U
270852	1	RCP	11.20	11.10	78.15	0.14	0.9	0	0	0.025	0617D12U	0617D11U
270876	1	RCP	11.29	11.20	65.07	0.13	0.9	0	0	0.025	0617D13U	0617D12U
271228	1	RCP	10.45	10.18	92.22	0.29	1.05	0	0	0.025	0617D9U	0617D8U
274883	1	RCP	1.00	0.10	90.50	0.98	1.5	0	0	0.025	0009A03U	0009AF2U
274883a	1	RCP	1.00	0.74	73.77	0.35	1.5	0	0	0.025	0009A03U	0009A2U
274885	1	RCP	0.10	-0.50	19.27	3.11	1.5	0	0	0.025	0009AF2U	0009AF1D
286542	3	RCBC	7.71	7.65	26.45	0.25	0	1.5	1.05	0.025	0372A2U	0372A1D
286578	3	RCBC	7.86	7.71	92.14	0.16	0	1.5	1.05	0.025	0372A3U	0372A2U
286718	3	RCBC	8.00	7.86	86.42	0.16	0	1.35	1.05	0.025	0372A4U	0372A3U
287050	3	RCBC	8.41	8.11	26.23	0.57	0	0.9	0.9	0.025	0372A6U	0372A5U
287069	3	RCBC	8.76	8.41	81.37	0.44	0	0.9	0.9	0.025	0372A7U	0372A6U
287176	3	RCBC	9.09	8.76	84.24	0.39	0	0.9	0.9	0.025	0372A8U	0372A7U
287243	3	RCBC	9.39	9.09	84.79	0.35	0	0.9	0.9	0.025	0372A9U	0372A8U
287266	3	RCBC	9.70	9.39	91.04	0.34	0	0.9	0.9	0.025	0372A10U	0372A9U
287433	3	RCBC	9.77	9.70	99.09	0.07	0	0.9	0.9	0.025	0372A11U	0372A10U
287445	3	RCBC	9.89	9.77	106.04	0.11	0	0.9	0.9	0.025	0372A12U	0372A11U
287534	3	RCBC	9.94	9.89	43.98	0.11	0	0.9	0.9	0.025	0372A13U	0372A12U
287554	3	RCBC	9.96	9.94	7.58	0.25	0	0.9	0.9	0.025	0372A14U	0372A13U
287561	1	RCP	10.12	9.96	72.40	0.20	0.9	0	0	0.025	0372A15U	0372A14U
287565	1	RCP	10.17	10.12	8.18	0.22	0.9	0	0	0.025	0372A16U	0372A15U
287985	3	RCBC	8.11	8.00	70.04	0.15	0	1.35	1.05	0.025	0372A5U	0372A4U
292122	3	RCBC	7.29	7.25	38.71	0.12	0	3.35	1.8	0.025	0718A3U	0718A2U
292134	3	RCBC	7.36	7.29	70.94	0.09	0	3.35	1.8	0.025	0718A4U	0718A3U
292172	3	RCBC	7.36	7.36	8.31	0.10	0	3.35	1.8	0.025	0718A5U	0718A4U
292174	3	RCBC	7.43	7.36	72.33	0.09	0	3.35	1.8	0.025	0718A6U	0718A5U
292176	3	RCBC	7.44	7.43	8.19	0.10	0	3.35	1.8	0.025	0718A7U	0718A6U
292179	3	RCBC	7.50	7.44	72.09	0.09	0	3.35	1.8	0.025	0718A8U	0718A7U
292235	3	RCBC	7.51	7.50	8.02	0.09	0	3.35	1.8	0.025	0718A9U	0718A8U
292260	3	RCBC	7.57	7.51	72.54	0.09	0	3.35	1.8	0.025	0718A11U	0718A9U
292306	3	RCBC	7.58	7.57	8.30	0.10	0	3.2	1.8	0.025	0718A12U	0718A11U
292322	3	RCBC	7.66	7.58	92.18	0.09	0	3.2	1.8	0.025	0718A13U	0718A12U
292362	3	RCBC	7.68	7.66	8.28	0.22	0	3.2	1.8	0.025	0718A14U	0718A13U
292373	3	RCBC	7.74	7.73	9.04	0.09	0	3.2	1.8	0.025	0718A16U	0718A15U
292376	3	RCBC	7.80	7.74	71.86	0.09	0	3.2	1.8	0.025	0718A17U	0718A16U
292397	3	RCBC	7.73	7.68	71.65	0.07	0	3.2	1.8	0.025	0718A15U	0718A14U
292403	3	RCBC	7.81	7.80	8.66	0.09	0	3.2	1.8	0.025	0718A18U	0718A17U
292409	3	RCBC	7.85	7.81	42.06	0.08	0	3.2	1.8	0.025	0718A19U	0718A18U
32411	1	RCP	11.15	11.14	40.57	0.01	0.9	0	0	0.025	0172A4U	0172A3U
32413	1	RCP	11.16	11.15	55.18	0.01	0.9	0	0	0.025	0172A5U	0172A4U
37947	1	RCP	9.59	9.43	76.20	0.21	0.9	0	0	0.025	0155AN6U	0155AN5U
37949	1	RCP	9.61	9.59	9.12	0.21	0.9	0	0	0.025	0155AN7U	0155AN6U
379592	3	RCBC	1.65	1.39	47.34	0.55	0	0.45	0.6	0.025	0296A2U	0296A1D
38015	1	RCP	9.72	9.61	54.28	0.21	0.9	0	0	0.025	0155AN8U	0155AN7U
38017	1	RCP	9.77	9.72	22.72	0.21	0.9	0	0	0.025	0155AN9U	0155AN8U
38021	1	RCP	9.79	9.77	9.72	0.21	0.9	0	0	0.025	0155AN10U	0155AN9U
380278	3	RCBC	2.19	2.01	40.39	0.45	0	0.9	0.6	0.025	0044C2U	0044C1D
38031	1	RCP	9.85	9.79	23.51	0.23	0.9	0	0	0.025	0155AN11U	0155AN10U
38037	1	RCP	9.99	9.96	14.17	0.23	0.9	0	0	0.025	0155AN13U	0155AN12U
38039	1	RCP	9.96	9.85	48.20	0.23	0.9	0	0	0.025	0155AN12U	0155AN11U
38116	1	RCP	7.00	6.57	150.00	0.29	1.2	0	0	0.025	0155B2U	0155B1D
38120	1	RCP	7.70	7.47	20.52	0.24	1.05	0	0	0.025	0155B3U	0155AA4U
38122	1	RCP	7.98	7.70	94.00	0.27	1.05	0	0	0.025	0155B4U	0155B3U
38124	1	RCP	8.30	7.98	111.12	0.27	1.05	0	0	0.025	0155B5U	0155B4U
38126	1	RCP	8.57	8.30	69.80	0.27	1.05	0	0	0.025	0155B6U	0155B5U
38161	1	RCP	1.94	1.16	53.64	0.89	1.2	0	0	0.025	0009A4U	0009A3U
38163	1	RCP	1.16	1.00	32.91	0.49	1.5	0	0	0.025	0009A3U	0009A03U
38165	1	RCP	0.74	0.02	93.52	0.77	1.8	0	0	0.025	0009A2U	0009A1D
38174	1	RCP	0.80	-0.08	22.45	0.22	0.45	0	0	0.025	0271B2U	0271B1D
38353	3	RCBC	23.00	21.78	30.03	1.66	0	1.2	0.9	0.025	0270A35U	0270A34U
38355	3	RCBC	21.78	20.01	45.11	3.90	0	1.8	0.6	0.025	0270A34U	0270A33U
38359	3	RCBC	20.01	19.91	2.46	4.08	0	1.8	0.6	0.025	0270A33U	0270A32U
38361	3	RCBC	19.91	17.69	67.63	3.29	0	1.8	0.6	0.025	0270A32U	0270A31U
38381	3	RCBC	15.70	15.59	23.59	0.48	0	1.8	1.5	0.025	0270A30U	0270A28U
38383	3	RCBC	15.59	13.88	4.56	12.87	0	1.8	0.975	0.025	0270A28U	0270A27U
38385	3	RCBC	13.88	13.14	27.84	2.67	0	1.8	0.975	0.025	0270A27U	0270A26U
38387	3	RCBC	13.14	12.53	20.27	3.02	0	1.5	1.2	0.025	0270A26U	0270A25U
38389	3	RCBC	12.53	11.61	30.30	3.03	0	1.5	1.2	0.025	0270A25U	0270A24U
38411	3	RCBC	11.61	10.82	25.13	3.12	0	1.5	1.2	0.025	0270A24U	0270A23U
38413	3	RCBC	10.82	10.50	10.32	3.12	0	1.5	1.2	0.025	0270A23U	0270A22U
38415	3	RCBC	10.50	9.03	24.55	5.99	0	1.575	0.9	0.025	0270A22U	0270A21U
38417	3	RCBC	9.03	8.92	4.30	2.48	0	1.5	1.5	0.025	0270A21U	0270A20U
38419	3	RCBC	8.92	7.91	40.87	2.48	0	1.5	1.5	0.025	0270A20U	0270A19U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
384583	1	RCP	0.79	0.49	33.27	0.90	0.9	0	0	0.025	0264A5U	0264A4U
38463	3	RCBC	7.91	7.09	32.96	2.48	0	1.5	1.5	0.025	0270A19U	0270A18U
38465	3	RCBC	7.09	6.19	36.33	2.48	0	1.5	1.5	0.025	0270A18U	0270A17U
38467	3	RCBC	6.19	5.64	23.35	2.33	0	1.5	1.575	0.025	0270A17U	0270AL1U
38471	3	RCBC	5.64	4.41	54.97	2.25	0	1.575	1.525	0.025	0270AL1U	0270A13U
384872	3	RCBC	0.66	0.59	26.08	0.27	0	2.1	1.95	0.025	0137A3U	0137A2U
45025	1	RCP	2.45	2.33	48.66	0.25	0.9	0	0	0.025	0088A16U	0088A15U
45053	1	RCP	2.10	1.85	34.51	0.73	0.9	0	0	0.025	0088AJ2U	0088AJ1U
45075	1	RCP	1.41	0.78	18.31	0.17	0.9	0	0	0.025	0088AC1U	0088A6U
45079	1	RCP	1.57	1.41	84.26	0.17	0.9	0	0	0.025	0088AC2U	0088AC1U
45081	1	RCP	1.62	1.57	9.45	0.17	0.9	0	0	0.025	0088AC3U	0088AC2U
45149	3	RCBC	1.65	1.63	18.43	0.11	0	1.2	0.9	0.025	0020A3U	0020A2U
45153	3	RCBC	1.63	1.62	2.00	0.50	0	1.2	0.9	0.025	0020A2U	0020A1D
45184	1	RCP	2.56	2.53	19.85	0.15	0.9	0	0	0.025	0222A016U	0222A15U
45186	1	RCP	2.58	2.56	14.34	0.15	0.9	0	0	0.025	0222A16U	0222A016U
45190	1	RCP	2.53	2.51	11.68	0.15	0.9	0	0	0.025	0222A15U	0222A14U
45194	1	RCP	2.51	2.48	18.53	0.15	0.9	0	0	0.025	0222A14U	0222A014U
45196	1	RCP	2.44	2.33	56.23	0.19	1.2	0	0	0.025	0222A13U	0222A11U
45214	1	RCP	2.29	2.17	63.90	0.19	1.2	0	0	0.025	0222A8U	0222A7U
38584	1	RCP	6.74	6.70	24.27	0.17	1.2	0	0	0.025	0051B2U	0051B1Da
38586	1	RCP	6.74	6.70	24.26	0.17	1.2	0	0	0.025	0051B2U	0051B1D
38591	1	RCP	6.90	6.74	97.99	0.17	1.2	0	0	0.025	0051B3U	0051B2U
38593	1	RCP	6.90	6.74	97.99	0.17	1.2	0	0	0.025	0051B3U	0051B2U
38594	1	RCP	7.02	6.90	79.01	0.14	1.2	0	0	0.025	0051B4U	0051B3U
38596	1	RCP	7.02	6.90	79.01	0.14	1.2	0	0	0.025	0051B4U	0051B3U
38605	1	RCP	7.15	7.02	89.41	0.14	1.2	0	0	0.025	0051B5U	0051B4U
38615	1	RCP	6.90	6.22	73.61	0.62	1.35	0	0	0.025	0138A4U	0138A3U
38684	1	RCP	7.14	6.90	37.79	0.56	1.35	0	0	0.025	0138A5U	0138A4U
38686	1	RCP	7.38	7.14	9.75	0.92	1.2	0	0	0.025	0138A6U	0138A5U
38688	1	RCP	7.83	7.38	11.89	1.09	1.2	0	0	0.025	0138A7U	0138A6U
38696	1	RCP	8.85	7.83	62.26	1.00	1.2	0	0	0.025	0138A8U	0138A7U
38698	1	RCP	9.89	8.85	39.90	1.00	1.2	0	0	0.025	0138A9U	0138A8U
38706	1	RCP	10.16	9.89	11.75	1.36	1.2	0	0	0.025	0138A10U	0138A9U
38714	1	RCP	10.63	10.16	39.34	1.14	1.2	0	0	0.025	0138A11U	0138A10U
38716	1	RCP	11.09	10.63	33.53	1.28	1.2	0	0	0.025	0138A12U	0138A11U
38720	1	RCP	11.82	11.09	54.25	1.29	1.2	0	0	0.025	0138A13U	0138A12U
38726	1	RCP	11.98	11.82	4.88	1.23	1.2	0	0	0.025	0138A14U	0138A13U
38728	1	RCP	12.51	11.98	49.25	1.08	1.2	0	0	0.025	0138A15U	0138A14U
38732	1	RCP	12.98	12.51	2.20	0.91	1.2	0	0	0.025	0138A16U	0138A15U
38738	3	RCBC	8.42	7.52	22.23	4.06	0	0.9	0.9	0.025	0272A15U	0272A14U
38744	3	RCBC	7.52	7.47	1.24	4.06	0	0.9	0.9	0.025	0272A14U	0272A13U
38747	3	RCBC	7.47	7.31	3.82	4.06	0	0.9	0.9	0.025	0272A13U	0272A12U
38749	3	RCBC	7.31	5.61	41.98	4.05	0	0.9	0.9	0.025	0272A12U	0272A11U
38751	3	RCBC	5.61	4.88	18.05	4.05	0	0.9	0.9	0.025	0272A11U	0272A011U
38753	3	RCBC	3.64	3.05	14.43	4.06	0	0.9	0.9	0.025	0272A10U	0272A9U
387682	1	RCP	1.32	0.86	49.42	0.93	0.9	0	0	0.025	0158B2U	0158B1Da
387685	1	RCP	1.32	0.86	49.33	0.94	0.9	0	0	0.025	0158B2U	0158B1D
42049	1	RCP	0.11	0.11	22.82	0.00	0.75	0	0	0.025	0205C5U	0205C4U
42053	1	RCP	0.11	0.15	141.30	-0.03	0.75	0	0	0.025	0205C4U	0205C3U
42061	1	RCP	0.15	0.11	38.63	0.10	1.2	0	0	0.025	0205C3U	0205C2U
42063	1	RCP	0.11	0.10	14.31	0.10	1.2	0	0	0.025	0205C2U	0205C1D
42068	1	RCP	0.11	0.00	63.27	0.16	1.65	0	0	0.025	0205D4U	0205D3U
42070	1	RCP	0.00	-0.08	50.84	0.16	1.65	0	0	0.025	0205D3U	0205D2U
42074	1	RCP	-0.08	-0.22	10.55	1.27	1.65	0	0	0.025	0205D2U	0205D1D
42081	1	RCP	0.04	0.04	12.58	0.00	0.9	0	0	0.025	0205B5U	0205B4U
42085	1	RCP	0.04	0.00	40.68	0.09	0.9	0	0	0.025	0205B4U	0205B3U
42093	1	RCP	0.00	-0.14	19.32	0.71	0.9	0	0	0.025	0205B3U	0205B2U
42095	1	RCP	-0.14	-0.14	13.60	0.00	0.9	0	0	0.025	0205B2U	0205B1D
42117	1	RCP	1.16	0.85	25.20	0.12	1.05	0	0	0.025	0290A23U	0290A22U
42119	1	RCP	1.46	1.23	23.71	0.13	0.9	0	0	0.025	0290AZW2U	0290AZW1U
42121	1	RCP	1.23	0.85	82.42	0.12	0.9	0	0	0.025	0290AZW1U	0290A22U
42123	1	RCP	0.85	0.77	50.42	0.16	1.2	0	0	0.025	0290A22U	0290A21U
42127	1	RCP	0.77	0.53	43.59	0.44	1.2	0	0	0.025	0290A21U	0290A20U
42133	1	RCP	0.53	0.45	50.00	0.12	1.35	0	0	0.025	0290A20U	0290A19U
42139	1	RCP	0.45	0.36	61.72	0.15	1.35	0	0	0.025	0290A19U	0290A18U
42143	1	RCP	0.36	0.36	4.06	0.00	1.35	0	0	0.025	0290A18U	0290A17U
42147	1	RCP	0.36	0.14	21.11	1.04	1.35	0	0	0.025	0290A17U	0290A16U
42165	1	RCP	0.68	0.62	13.92	0.14	1.05	0	0	0.025	0290AU2U	0290AU1U
42169	1	RCP	0.62	0.14	80.10	0.07	1.05	0	0	0.025	0290AU1U	0290A16U
42196	1	RCP	1.67	1.51	25.29	0.16	0.9	0	0	0.025	0290AV5U	0290AV4U
42201	1	RCP	1.51	1.40	56.84	0.16	0.9	0	0	0.025	0290AV4U	0290AV3U
42203	1	RCP	1.40	1.08	57.70	0.12	0.9	0	0	0.025	0290AV3U	0290AV2U
42205	1	RCP	1.08	1.00	67.02	0.09	1.2	0	0	0.025	0290AV2U	0290AV1U
42207	1	RCP	1.00	0.14	65.00	0.09	1.2	0	0	0.025	0290AV1U	0290A16U
42209	1	RCP	0.14	0.11	42.26	0.07	1.5	0	0	0.025	0290A16U	0290A15U
52051	1	RCP	4.36	4.32	31.19	0.03	1.8	0	0	0.025	0176A8U	0176A7U
52053	1	RCP	4.76	4.71	66.02	0.08	1.5	0	0	0.025	0176A10U	0176A010U
52071	3	RCBC	1.54	1.52	23.43	0.08	0	1.5	0.75	0.025	0029AC08U	0029AC7U
52075	3	RCBC	1.54	1.54	3.92	0.07	0	1.5	0.75	0.025	0029AC8U	0029AC08U
52077	3	RCBC	1.57	1.54	40.39	0.07	0	1.5	0.75	0.025	0029AC09U	0029AC8U
52079	3	RCBC	1.57	1.57	16.05	0.00	0	1.5	0.75	0.025	0029AC9U	0029AC09U
52133	1	RCP	4.45	4.44	19.19	0.05	0.9	0	0	0.025	0230A3U	0230A2U
52151	1	RCP	4.76	4.57	157.88	0.12	0.9	0	0	0.025	0230A7U	0230A6U
52295	3	RCBC	6.60	6.47	11.25	1.23	0	1.5	1.5	0.025	0093A4U	0093N4U
52788	1	RCP	4.77	4.74	21.38	0.11	1.2	0	0	0.025	0216A5U	0216A4U
52790	1	RCP	4.84	4.77	68.00	0.11	1.2	0	0	0.025	0216A6U	0216A5U
52804	1	RCP	4.99	4.98	50.13	0.02	1.2	0	0	0.025	0216A10U	0216A9U
52813	1	RCP	5.04	5.02	11.83	0.14	0.9	0	0	0.025	0216AH2U	0216AH1U
52815	1	RCP	5.10	5.04	44.00	0.14	0.9	0	0	0.025	0216AH3U	0216AH2U
52849	1	RCP	6.11	6.08	11.35	0.26	1.2	0	0	0.025	0227A7U	0227A6U
52851	1	RCP	6.11	6.08	11.35	0.26	1.2	0	0	0.025	0227A7U	0227A6U
52858	1	RCP	6.95	6.11	298.64	0.28	1.2	0	0	0.025	0227A8U	0227A7U
52860	1	RCP	6.95	6.11	298.64	0.28	1.2	0	0	0.025	0227A8U	0227A7U
52861	1	RCP	6.96	6.95	5.83	0.24	1.05	0	0	0.025	0227AH1U	0227A8U
52865	1	RCP	7.11	6.96	59.13	0.24	1.05	0	0	0.025	0227AH02U	0227AH1U
52900	1	RCP	7.32	6.96	263.13	0.15	1.2	0	0	0.025	0227A12U	0227A09U
52902	1	RCP	7.32	6.96	263.13	0.15	1.2	0	0	0.025	0227A12U	0227A09U
52907	1	RCP	7.34	7.32	10.70	0.14	1.2	0	0	0.025	0227A13U	0227A12U
52909	1	RCP	7.34	7.32	10.70	0.14	1.2	0	0	0.025	0227A13U	0227A12U
52921	1	RCP	7.51	7.34	97.49	0.18	1.2	0	0	0.025	0227A15U	0227A13U
52971	1	RCP	7.68	7.51	157.57	0.11	1.2	0	0	0.025	0227A16U	0227A15U
52973	1	RCP	7.68	7.51	157.57	0.11	1.2	0	0	0.025	0227A16U	0227A15U
Link_151	1	RCP					1.2			0.012		

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
53221	1	RCP	7.72	7.68	43.22	0.11	1.2	0	0	0.025	0227A17U	0227A16U
53223	1	RCP	7.72	7.68	43.22	0.11	1.2	0	0	0.025	0227A17U	0227A16U
53224	1	RCP	7.75	7.72	26.81	0.11	1.2	0	0	0.025	0227A18U	0227A17U
53226	1	RCP	7.75	7.72	26.81	0.11	1.2	0	0	0.025	0227A18U	0227A17U
53227	1	RCP	7.80	7.75	45.06	0.11	1.2	0	0	0.025	0227A19U	0227A18U
53229	1	RCP	7.80	7.75	45.06	0.11	1.2	0	0	0.025	0227A19U	0227A18U
53230	1	RCP	7.86	7.80	55.31	0.11	1.2	0	0	0.025	0227A20U	0227A19U
53232	1	RCP	7.86	7.80	55.31	0.11	1.2	0	0	0.025	0227A20U	0227A19U
53235	1	RCP	7.89	7.86	31.92	0.11	1.2	0	0	0.025	0227A21U	0227A20U
53237	1	RCP	7.89	7.86	31.92	0.11	1.2	0	0	0.025	0227A21U	0227A20U
53266	1	RCP	8.53	7.89	30.18	1.03	0.9	0	0	0.025	0227AZY1U	0227A21U
53268	1	RCP	8.72	8.53	73.00	0.22	0.9	0	0	0.025	0227AZY2U	0227AZY1U
53270	1	RCP	8.73	8.72	3.97	0.24	0.9	0	0	0.025	0227AZY3U	0227AZY2U
53276	1	RCP	8.85	8.73	49.68	0.24	0.9	0	0	0.025	0227AZY4U	0227AZY3U
387772	1	RCP	2.43	2.40	5.90	0.54	1.2	0	0	0.025	0074M1U	0074ZW1D
387941	1	RCP	1.68	0.31	49.80	2.75	0.9	0	0	0.025	0158A02U	0158A1Da
387946	1	RCP	1.68	0.29	49.83	2.79	0.9	0	0	0.025	0158A02U	0158A1D
45229	1	RCP	2.17	2.12	38.50	0.14	1.2	0	0	0.025	0222A7U	0222A5U
45240	1	RCP	2.03	1.99	25.60	0.14	1.2	0	0	0.025	0222A3U	0222A2U
45242	1	RCP	1.99	1.93	42.54	0.14	1.2	0	0	0.025	0222A2U	0222A1D
Link_148	1	RCP	2.07	1.34	1.61	45.27	0.9			0.012		
52919	1	RCP	7.51	7.34		0.18	1.2	0	0	0.025	0227A15U	0227A13U
Link_150	1	RCP	7.51	7.34		0.18	1.2	0	0	0.025	0227A15U	0227A13U
Link_153	1	RCP					0.9			0.012		
Link_154	1	RCP					0.9			0.012		
Link_155	1	RCP					0.9			0.012		
Link_156	1	RCP					0.9			0.012		
Link_157	1	RCP					0.9			0.012		
Link_158	1	RCP					0.9			0.012		
45375	1	RCP	2.51	2.42	251.34	0.04	0.9	0	0	0.025	0050A12U	0050A9U
45406	1	RCP	2.55	2.51	30.94	0.12	0.9	0	0	0.025	0050A13U	0050A12U
45408	1	RCP	2.78	2.55	188.38	0.12	0.9	0	0	0.025	0050A14U	0050A13U
45412	1	RCP	2.82	2.78	32.30	0.12	0.9	0	0	0.025	0050A15U	0050A14U
45414	1	RCP	3.14	2.82	26.43	1.22	0.9	0	0	0.025	0050AM1U	0050A15U
45450	1	RCP	2.66	2.51	130.61	0.12	0.9	0	0	0.025	0050AJ1U	0050A12U
45463	1	RCP	2.95	2.92	30.50	0.12	0.9	0	0	0.025	0050AJ4U	0050AJ3U
45467	1	RCP	3.00	2.95	10.68	0.43	0.9	0	0	0.025	0050AJF1U	0050AJ4U
45554	1	RCP	3.90	3.82	68.28	0.11	0.9	0	0	0.025	0071A11U	0071A10U
45572	3	RCBC	2.40	1.90	96.87	0.51	0	2	1.37	0.025	0044A4U	0044A3U
32425	1	RCP	11.22	11.16	24.17	0.25	0.9	0	0	0.025	0172A6U	0172A5U
32427	1	RCP	11.37	11.22	59.09	0.25	0.9	0	0	0.025	0172A7U	0172A6U
32430	1	RCP	4.15	4.09	80.56	0.06	1.8	0	0	0.025	0176A2U	0176A1D
80921_2	1	RCP	7.56	7.50	47.77	0.12	1.05			0.025	0209B029U	0209B26U
32432	1	RCP	4.18	4.15	12.44	0.08	1.8	0	0	0.025	0176A3U	0176A2U
32451	1	RCP	11.42	11.37	21.09	0.25	0.9	0	0	0.025	0172A8U	0172A7U
32461	1	RCP	11.58	11.42	61.03	0.25	0.9	0	0	0.025	0172A9U	0172A8U
32492	3	RCBC	3.57	3.50	38.45	0.18	0	0.75	0.6	0.025	0125B8U	0125B7U
32496	1	RCP	4.22	4.18	33.50	0.06	1.8	0	0	0.025	0176A4U	0176A3U
32498	1	RCP	4.25	4.22	59.35	0.05	1.8	0	0	0.025	0176A5U	0176A4U
32540	1	RCP	12.68	12.64	14.82	0.27	0.9	0	0	0.025	0011A3U	0011B4U
32557	1	RCP	12.25	11.98	55.90	0.48	0.9	0	0	0.025	0011B2U	0011B1D
32569	1	RCP	12.59	12.25	71.18	0.45	0.9	0	0	0.025	0011B3U	0011B2U
32573	1	RCP	12.64	12.59	10.00	0.48	0.9	0	0	0.025	0011B4U	0011B3U
32587	1	RCP	8.27	8.26	5.52	0.18	1.5	0	0	0.025	0023A2U	0023A1D
32589	1	RCP	8.83	8.27	49.99	0.12	0.9	0	0	0.025	0023AA1U	0023A2U
32591	1	RCP	9.00	8.83	10.62	0.19	0.9	0	0	0.025	0023AA2U	0023AA1U
32595	1	RCP	9.22	9.00	83.80	0.23	0.9	0	0	0.025	0023AA3U	0023AA2U
32658	1	RCP	8.28	8.27	5.04	0.22	1.5	0	0	0.025	0023A3U	0023A2U
32660	1	RCP	8.78	8.28	122.80	0.29	1.35	0	0	0.025	0023AB1U	0023A3U
32738	1	RCP	9.16	8.78	20.66	1.84	0.9	0	0	0.025	0023ABB1U	0023AB1U
32776	1	RCP	8.29	8.28	4.02	0.22	1.5	0	0	0.025	0023A4U	0023A3U
32778	1	RCP	8.48	8.29	43.70	0.16	1.5	0	0	0.025	0023A5U	0023A4U
32782	1	RCP	8.57	8.48	30.38	0.20	1.5	0	0	0.025	0023A6U	0023A5U
32788	1	RCP	8.70	8.57	31.41	0.29	1.5	0	0	0.025	0023A7U	0023A6U
32790	1	RCP	9.12	8.70	47.49	0.82	1.5	0	0	0.025	0023A8U	0023A7U
32794	1	RCP	2.50	2.50	25.69	0.00	1.05	0	0	0.025	0135A2U	0135A1D
32796	1	RCP	2.55	2.50	35.27	0.13	1.05	0	0	0.025	0135A3U	0135A1D
32798	1	RCP	2.59	2.50	40.84	0.22	1.05	0	0	0.025	0135A4U	0135A2U
32806	1	RCP	2.74	2.59	66.77	0.22	1.05	0	0	0.025	0135A5U	0135A4U
32808	1	RCP	2.74	2.59	66.77	0.22	1.05	0	0	0.025	0135A5U	0135A4U
32815	1	RCP	3.76	3.67	52.85	0.15	0.9	0	0	0.025	0071A7U	0071A6U
32817	1	RCP	3.77	3.76	12.19	0.15	0.9	0	0	0.025	0071A8U	0071A7U
32820	1	RCP	3.79	3.77	11.89	0.14	0.9	0	0	0.025	0071A9U	0071A8U
32823	1	RCP	3.82	3.79	25.06	0.11	0.9	0	0	0.025	0071A10U	0071A9U
32836	1	RCP	9.17	9.12	28.15	0.16	1.2	0	0	0.025	0023A9U	0023A8U
32844	1	RCP	9.27	9.17	63.47	0.16	1.2	0	0	0.025	0023A10U	0023A9U
32848	1	RCP	9.29	9.27	12.15	0.16	1.2	0	0	0.025	0023A11U	0023A10U
32880	1	RCP	0.42	0.38	29.02	0.14	1.35	0	0	0.025	0088A2U	0088A1D
32882	1	RCP	0.44	0.42	6.40	0.31	1.35	0	0	0.025	0088A3U	0088A2U
32886	1	RCP	0.60	0.44	8.98	0.41	0.9	0	0	0.025	0088AA1U	0088A3U
32892	1	RCP	1.24	0.60	19.86	0.38	0.9	0	0	0.025	0088AA2U	0088AA1U
32894	1	RCP	1.34	1.24	24.04	0.42	0.9	0	0	0.025	0088AA3U	0088AA2U
32900	1	RCP	1.48	1.34	37.37	0.32	0.9	0	0	0.025	0088AA4U	0088AA3U
32907	1	RCP	2.33	2.26	206.92	0.04	0.9	0	0	0.025	0050A4U	0050A3U
32958	1	RCP	0.59	0.50	31.96	0.27	1.2	0	0	0.025	0137A2U	0137A1D
329584	1	RCP	7.47	7.00	151.98	0.29	1.2	0	0	0.025	0155AA4U	0155B2U
32961	1	RCP	0.89	0.66	20.16	1.17	0.6	0	0	0.025	0137A4U	0137A3U
32963	1	RCP	1.50	0.89	51.85	1.17	0.6	0	0	0.025	0137A5U	0137A4U
32986	1	RCP	0.62	0.35	69.95	0.38	1.4	0	0	0.025	0165A2U	0165A1Da
32988	1	RCP	0.62	0.35	69.57	0.38	1.4	0	0	0.025	0165A2U	0165A1D
32991	3	RCBC	3.07	1.91	10.18	11.43	0	0.8	0.7	0.025	0165AA1U	0165A3U
35748	1	RCP	1.13	0.55	254.56	0.23	0.9	0	0	0.025	0249A10U	0249A8U
35758	1	RCP	0.55	0.49	23.66	0.23	1.2	0	0	0.025	0249A8U	0249A7U
35760	1	RCP	0.49	0.11	169.14	0.23	1.2	0	0	0.025	0249A7U	0249A6U
35867	1	RCP	6.26	6.19	20.80	0.34	0.75	0	0	0.025	0113A10U	0113A9U
35890	1	RCP	6.82	6.04	21.10	3.70	0.75	0	0	0.025	0009A10U	0009A8U
35894	1	RCP	6.04	5.35	5.14	13.35	0.75	0	0	0.025	0009A8U	0009A7U
35896	1	RCP	5.35	5.14	6.41	2.09	0.9	0	0	0.025	0009A7U	0009A07U
35914	3	RCBC	2.26	1.98	13.11	2.07	0.9	2.5	0.9	0.025	0050A3U	0050A1D
35916	1	RCP	-0.46	-0.48	19.08	0.10	1.05	0	0	0.025	0046A2U	0046A1Da
35920	1	RCP	-0.44	-0.46	73.79	0.03	1.05	0	0	0.025	0046A3U	0046A2U
35927	1	RCP	0.01	-0.44	105.30	0.43	0.9	0	0	0.025	0046A4U	0046A3U
35977	1	RCP	7.94	7.89	32.39	0.16	1.2	0	0	0.025	0209B33U	0209B32U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
36039	1	RCP	8.10	8.06	20.26	0.19	1.2	0	0	0.025	0209B37U	0209B36U
36045	1	RCP	8.28	8.10	115.24	0.16	1.2	0	0	0.025	0209B38U	0209B37U
36061	1	RCP	8.74	8.47	71.24	0.38	1.05	0	0	0.025	0209B42U	0209B40U
36071	1	RCP	8.88	8.76	86.79	0.14	1.05	0	0	0.025	0209B44U	0209B43U
36109	1	RCP	9.27	9.15	76.27	0.16	1.05	0	0	0.025	0209B50U	0209B49U
36111	1	RCP	9.32	9.27	75.42	0.07	1.05	0	0	0.025	0209B51U	0209B50U
361251	3	RCBC	7.23	7.20	23.25	0.13	0	3.3	1.8	0.025	0718A02U	0718A1D
361254	3	RCBC	7.25	7.23	15.79	0.10	0	3.3	1.8	0.025	0718A2U	0718A02U
36129	1	RCP	9.34	9.32	5.72	0.31	1.05	0	0	0.025	0209B52U	0209B51U
36133	1	RCP	9.57	9.34	71.54	0.33	0.9	0	0	0.025	0209B53U	0209B52U
36149	1	RCP	9.92	9.90	9.10	0.16	0.9	0	0	0.025	0209B56U	0209B55U
80041	1	RCP	6.25	6.22	11.04	0.31	1.05	0	0	0.025	0209BG1U	0209BG01U
36153	1	RCP	9.93	9.92	6.75	0.16	0.9	0	0	0.025	0209B57U	0209B56U
36181	3	RCBC	7.61	7.92	252.07	0.20	0	2.4	0.6	0.025	0209B29U	0209C1D
373721	1	RCP	1.56	1.00	58.33	0.97	0.9	0	0	0.025	0264AB1U	0264A6U
374171	1	RCP	0.79	0.49	33.27	0.90	0.9	0	0	0.025	0264A5U	0264A4U
374225	1	RCP	0.49	0.23	29.91	0.88	0.9	0	0	0.025	0264A4U	0264A3U
374268	1	RCP	0.49	0.23	29.91	0.88	0.9	0	0	0.025	0264A4U	0264A3U
375321	1	RCP	-0.11	-0.63	83.30	0.62	0.9	0	0	0.025	0264A2U	0264A1D
Link_69	3	RCBC	3.51	3.16	22.79	1.54		1.2	1.2	0.025	0123A7U	0123A6U
Link_70	3	RCBC	3.16	1.50	107.94	1.54		1.2	1.2	0.025	0123A6U	0123A5U
Link_71	3	RCBC	1.50	1.15	22.76	1.54		1.2	1.2	0.025	0123A5U	0123A4U
375332	1	RCP	-0.11	-0.63	83.30	0.62	0.9	0	0	0.025	0264A2U	0264A1Da
375356	1	RCP	0.23	-0.11	55.81	0.62	0.9	0	0	0.025	0264A3U	0264A2U
375358	1	RCP	0.23	-0.11	55.81	0.62	0.9	0	0	0.025	0264A3U	0264A2U
375952	1	RCP	-0.31	-0.34	27.44	0.11	1.5	0	0	0.025	0290A10U	0290A9U
375955	1	RCP	-0.31	-0.34	27.44	0.11	1.5	0	0	0.025	0290A10U	0290A9U
37612	1	RCP	6.86	6.27	130.14	0.46	1.2	0	0	0.025	0155A2U	0155A1D_2
37614	1	RCP	6.86	6.27	130.14	0.46	1.2	0	0	0.025	0155A2U	0155A1D
37615	1	RCP	7.40	6.86	117.67	0.46	1.2	0	0	0.025	0155A3U	0155A2U
37617	1	RCP	7.40	6.86	117.67	0.46	1.2	0	0	0.025	0155A3U	0155A2U
37618	1	RCP	7.41	7.40	23.09	0.05	0.9	0	0	0.025	0155AA1U	0155A3U
37628	1	RCP	7.44	7.41	51.46	0.05	0.9	0	0	0.025	0155AA2U	0155AA1U
37632	1	RCP	7.46	7.44	65.23	0.05	0.9	0	0	0.025	0155AA3U	0155AA2U
37638	1	RCP	7.47	7.46	11.43	0.05	0.9	0	0	0.025	0155AA4U	0155AA3U
37640	1	RCP	7.50	7.47	18.99	0.16	0.9	0	0	0.025	0155AA5U	0155AA4U
37646	1	RCP	7.55	7.50	58.81	0.09	0.9	0	0	0.025	0155AA6U	0155AA5U
37698	1	RCP	7.48	7.40	28.91	0.29	1.65	0	0	0.025	0155A4U	0155A3U
37704	1	RCP	7.69	7.48	70.35	0.29	1.65	0	0	0.025	0155A5U	0155A4U
37708	1	RCP	7.72	7.69	10.44	0.28	1.65	0	0	0.025	0155A6U	0155A5U
37710	1	RCP	7.99	7.72	97.16	0.28	1.65	0	0	0.025	0155A7U	0155A6U
37712	1	RCP	8.31	7.99	111.82	0.28	1.65	0	0	0.025	0155A8U	0155A7U
37728	1	RCP	9.52	9.50	10.33	0.26	0.9	0	0	0.025	0155AD5U	0155AD4U
37734	1	RCP	3.72	3.61	34.71	0.32	1.2	0	0	0.025	0237AKB1U	0237AKB01U
37770	3	RCBC	1.42	0.73	20.08	3.48	0	0.9	0.75	0.025	0206A5U	0206A3U
37780	1	RCP	0.23	0.17	25.03	0.26	1.05	0	0	0.025	0206A2U	0206A002U
37783	1	RCP	6.15	5.64	48.60	0.89	0.75	0	0	0.025	0113A7U	0113A6U
37785	1	RCP	5.64	5.40	7.35	0.75	0.75	0	0	0.025	0113A6U	0113A5U
37793	3	RCBC	2.72	0.97	86.96	2.01	0	0.9	0.975	0.025	0113A2U	0113A1D
37802	1	RCP	9.48	9.50	10.36	-0.16	0.9	0	0	0.025	0155ADB1U	0155AD4U
37804	1	RCP	9.30	9.48	72.52	-0.25	0.9	0	0	0.025	0155ADB2U	0155ADB1U
37806	1	RCP	9.25	9.30	7.91	-0.63	0.9	0	0	0.025	0155ADB3U	0155ADB2U
37816	1	RCP	8.33	8.31	12.08	0.15	1.65	0	0	0.025	0155A9U	0155A8U
37820	1	RCP	8.43	8.33	69.87	0.15	1.65	0	0	0.025	0155A10U	0155A9U
37830	1	RCP	8.45	8.43	12.80	0.16	1.65	0	0	0.025	0155A11U	0155A10U
378368	3	RCBC	0.58	0.36	9.24	0.76	0	1.65	1.2	0.025	0206A003U	0206A03U
37856	1	RCP	8.52	8.49	32.09	0.11	1.65	0	0	0.025	0155A13U	0155A12U
37858	1	RCP	8.61	8.52	77.01	0.11	1.65	0	0	0.025	0155A014U	0155A13U
37860	1	RCP	8.62	8.61	16.56	0.11	1.65	0	0	0.025	0155A14U	0155A014U
37868	1	RCP	8.69	8.62	66.62	0.11	1.65	0	0	0.025	0155A015U	0155A14U
37875	1	RCP	8.72	8.70	27.31	0.07	1.65	0	0	0.025	0155A16U	0155A15U
37903	1	RCP	8.92	8.72	92.61	0.22	1.05	0	0	0.025	0155AN1U	0155A16U
37909	1	RCP	9.15	8.92	104.67	0.22	1.05	0	0	0.025	0155AN2U	0155AN1U
37913	1	RCP	9.16	9.15	9.20	0.18	1.05	0	0	0.025	0155AN3U	0155AN2U
37919	1	RCP	9.29	9.16	67.30	0.18	1.05	0	0	0.025	0155AN4U	0155AN3U
37921	1	RCP	9.43	9.29	79.74	0.18	1.05	0	0	0.025	0155AN5U	0155AN4U
38503	3	RCBC	4.41	3.59	36.53	2.25	0	1.575	1.525	0.025	0270A13U	0270A12U
38505	1	RCP	3.59	3.29	13.33	2.25	1.65	0	0	0.025	0270A12U	0270A11U
38507	1	RCP	3.29	3.15	6.26	2.25	1.65	0	0	0.025	0270A11U	0270A10U
38511	1	RCP	3.15	2.95	8.47	2.25	1.65	0	0	0.025	0270A10U	0270A9U
38515	1	RCP	2.95	2.83	5.71	2.25	1.65	0	0	0.025	0270A9U	0270A8U
38523	1	RCP	2.83	2.46	16.20	2.25	1.65	0	0	0.025	0270A8U	0270A7U
38533	1	RCP	2.46	2.22	10.71	2.25	1.65	0	0	0.025	0270A7U	0270A6U
38535	1	RCP	2.22	1.20	45.49	2.25	1.65	0	0	0.025	0270A6U	0270A5U
38537	1	RCP	1.20	1.18	0.71	2.24	1.65	0	0	0.025	0270A5U	0270A4U
38544	1	RCP	1.18	1.16	1.02	2.24	1.65	0	0	0.025	0270A4U	0270A3U
38575	1	RCP	26.00	23.87	22.11	9.65	0.9	0	0	0.025	0138A25U	0138A24U
38578	1	RCP	5.88	5.65	43.89	0.52	1.35	0	0	0.025	0138A2U	0138A1D
38580	1	RCP	6.22	5.88	14.63	0.75	1.35	0	0	0.025	0138A3U	0138A2U
38818	1	RCP	3.79	3.73	64.93	0.09	1.2	0	0	0.025	0237AKB3U	0237AKB2U
388182	1	RCP	0.99	0.98	16.71	0.07	1.2	0	0	0.025	0158F2U	0158F1D
388185	1	RCP	1.12	0.99	18.59	0.52	1.2	0	0	0.025	0158F3U	0158F2U
388199	1	RCP	2.47	2.38	95.46	0.09	0.9	0	0	0.025	0050A007U	0050A07U
38826	1	RCP	3.98	3.79	20.49	0.10	1.05	0	0	0.025	0237AKB4U	0237AKB3U
38830	1	RCP	4.04	3.98	66.57	0.09	1.05	0	0	0.025	0237AKB5U	0237AKB4U
388303	3	RCBC	2.50	2.40	5.46	1.83	0	2	1.37	0.025	0044A6U	0044A4U
38834	1	RCP	4.21	4.04	30.69	0.16	0.9	0	0	0.025	0237AKB6U	0237AKB5U
38840	1	RCP	3.89	3.59	20.02	1.50	0.9	0	0	0.025	0237AK2U	0237AK1U
38847	1	RCP	4.07	3.89	101.35	0.17	0.9	0	0	0.025	0237AK3U	0237AK03U
38859	1	RCP	4.48	4.24	86.10	0.26	0.9	0	0	0.025	0237AK5U	0237AK4U
38861	1	RCP	4.76	4.48	98.50	0.28	0.9	0	0	0.025	0237AK6U	0237AK5U
38893	1	RCP	3.76	3.49	89.83	0.23	0.9	0	0	0.025	0237A11U	0237A10U
38895	1	RCP	3.76	3.49	89.83	0.23	0.9	0	0	0.025	0237A11U	0237A10U
38896	1	RCP	3.76	3.49	89.83	0.23	0.9	0	0	0.025	0237A11U	0237A10U
38897	1	RCP	4.13	3.76	86.01	0.20	0.9	0	0	0.025	0237A12U	0237A11U
38899	1	RCP	4.13	3.76	86.01	0.27	0.9	0	0	0.025	0237A12U	0237A11U
38900	1	RCP	4.13	3.76	86.01	0.20	0.9	0	0	0.025	0237A12U	0237A11U
38957	1	RCP	12.48	10.02	64.46	3.83	0.9	0	0	0.025	0164A9U	0164A8U
38959	1	RCP	10.02	9.85	24.30	0.70	0.75	0	0	0.025	0164A8U	0164A7U
38961	1	RCP	9.85	6.73	108.29	2.88	0.75	0	0	0.025	0164A7U	0164A6U
38963	1	RCP	6.73	6.17	22.06	2.54	0.75	0	0	0.025	0164A6U	0164A5U
38969	1	RCP	6.17	4.29	74.12	2.54	0.9	0	0	0.025	0164A5U	0164A45U
38977	3	RCBC	2.90	2.07	22.46	3.70	0.9	0.9	0.9	0.025	0164A4U	0164A3U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
38985	3	RCBC	2.07	0.17	85.37	2.22	0	1.8	0.6	0.025	0164A3U	0164A1D
39018	1	RCP	5.10	4.80	60.54	0.50	1.2	0	0	0.025	0068A2U	0068A1D
39020	1	RCP	5.18	5.10	33.43	0.25	1.2	0	0	0.025	0068A3U	0068A2U
39026	1	RCP	5.24	5.18	25.03	0.25	1.2	0	0	0.025	0068A4U	0068A3U
39062	1	RCP	5.45	5.24	85.62	0.25	1.05	0	0	0.025	0068A5U	0068A4U
39064	1	RCP	5.53	5.45	29.76	0.25	1.05	0	0	0.025	0068A6U	0068A5U
39066	1	RCP	5.75	5.53	85.04	0.27	1.05	0	0	0.025	0068A7U	0068A6U
39084	1	RCP	13.06	12.98	7.90	0.51	1.2	0	0	0.025	0138A17U	0138A16U
39086	1	RCP	13.99	13.06	67.42	1.32	1.05	0	0	0.025	0138A19U	0138A17U
39092	1	RCP	16.17	13.99	71.83	3.03	0.9	0	0	0.025	0138A20U	0138A19U
39096	1	RCP	20.49	16.17	55.62	7.03	0.9	0	0	0.025	0138A21U	0138A20U
39104	1	RCP	22.36	20.65	17.70	9.64	0.9	0	0	0.025	0138A23U	0138A22U
39106	1	RCP	23.87	22.36	15.68	9.64	0.9	0	0	0.025	0138A24U	0138A23U
39128	1	RCP	4.50	4.47	1.16	2.32	1.05	0	0	0.025	0078A8U	0078A7U
39136	1	RCP	4.47	4.44	1.48	2.32	1.05	0	0	0.025	0078A7U	0078A6U
39144	1	RCP	4.44	3.89	23.73	2.32	1.05	0	0	0.025	0078A6U	0078A5U
39146	1	RCP	3.89	2.28	69.45	2.32	1.05	0	0	0.025	0078A5U	0078A004U
39162	1	RCP	3.89	2.28	69.45	2.32	0.9	0	0	0.025	0078A5U	0078A004U
39164	1	RCP	1.34	1.26	2.63	3.08	0.9	0	0	0.025	0078A3U	0078A2U
39170	1	RCP	1.26	-0.73	64.54	3.08	0.9	0	0	0.025	0078A2U	0078A1D
39205	1	RCP	4.24	4.07	99.83	0.17	0.9	0	0	0.025	0237AK4U	0237AK3U
39207	1	RCP	4.24	4.07	99.83	0.17	0.9	0	0	0.025	0237AK4U	0237AK3U
40392	1	RCP	1.48	1.25	32.20	0.72	1.2	0	0	0.025	0250A6U	0250A3U
40398	1	RCP	1.25	1.24	14.62	0.01	1.35	0	0	0.025	0250A3U	0250A2U
40402	1	RCP	1.24	1.24	6.88	0.00	1.35	0	0	0.025	0250A2U	0250A1D
40838	1	RCP	1.07	-0.97	25.73	7.93	0.9	0	0	0.025	0139A2U	0139A1D
40852	1	RCP	3.75	3.70	22.12	0.21	1.05	0	0	0.025	0127A2U	0127A1D
40854	1	RCP	4.04	3.75	94.00	0.25	1.05	0	0	0.025	0127A3U	0127A2U
40860	1	RCP	4.28	4.16	45.88	0.26	1.05	0	0	0.025	0127A5U	0127A05U
40963	1	RCP	2.23	2.21	13.83	0.17	1.05	0	0	0.025	0140A3U	0140A2U
40965	1	RCP	2.32	2.24	39.69	0.20	1.05	0	0	0.025	0140A4U	0140A04U
40967	1	RCP	2.39	2.32	43.96	0.17	1.05	0	0	0.025	0140A5U	0140A4U
40969	1	RCP	2.45	2.39	36.95	0.16	1.05	0	0	0.025	0140A6U	0140A5U
40971	1	RCP	2.47	2.45	12.31	0.19	1.05	0	0	0.025	0140A7U	0140A6U
41005a	1	RCP	2.00	1.87	43.42	0.29	0.9	0	0	0.025	0158A7U	0158A6U
41005	1	RCP	2.00	1.87	43.42	0.29	0.9	0	0	0.025	0158A7U	0158A6U
41391	1	RCP	1.79	1.74	84.00	0.00	1.05	0	0	0.025	0144A5U	0144A4U
41395	1	RCP	2.03	1.79	40.00	0.60	1.05	0	0	0.025	0144A6U	0144A5U
41401	1	RCP	2.14	2.03	42.40	0.14	1.05	0	0	0.025	0144A7U	0144A6U
41411	1	RCP	2.37	2.14	27.60	0.29	0.9	0	0	0.025	0144A8U	0144A7U
41419	1	RCP	2.46	2.37	36.00	0.19	0.9	0	0	0.025	0144A9U	0144A8U
41564	1	RCP	2.16	1.80	43.15	0.83	0.9	0	0	0.025	0074B2U	0074B1D
41566	1	RCP	2.33	2.16	20.77	0.83	0.9	0	0	0.025	0074BA1U	0074B2U
41625	1	RCP	1.65	1.41	39.90	0.61	1.05	0	0	0.025	0074C6U	0074C1D
41702	1	RCP	5.98	5.75	45.13	0.11	0.9	0	0	0.025	0068A8U	0068A7U
41983	1	RCP	6.38	6.30	120.05	0.07	0.9	0	0	0.025	0035A2U	0035A1Da
41985	1	RCP	6.38	6.30	120.05	0.07	0.9	0	0	0.025	0035A2U	0035A1D
41986	1	RCP	6.45	6.38	54.00	0.07	0.9	0	0	0.025	0035A3U	0035A2U
41988	1	RCP	6.45	6.38	54.00	0.07	0.9	0	0	0.025	0035A3U	0035A2U
41989	1	RCP	6.59	6.45	76.44	0.09	0.9	0	0	0.025	0035AC1U	0035A3U
41995	1	RCP	7.13	7.09	27.31	0.15	1.65	0	0	0.025	0166A3U	0166A2U
42001	1	RCP	7.09	6.68	177.29	0.20	1.65	0	0	0.025	0166A2U	0166A1D
42003	1	RCP	7.23	7.13	47.30	0.21	1.65	0	0	0.025	0166A4U	0166A3U
42005	1	RCP	7.25	7.23	11.10	0.18	1.65	0	0	0.025	0166A5U	0166A4U
42011	1	RCP	7.41	7.25	3.61	0.28	1.5	0	0	0.025	0166A6U	0166A5U
42013	1	RCP	7.79	7.60	83.08	0.23	1.5	0	0	0.025	0166A8U	0166A7U
42019	1	RCP	5.55	5.48	22.81	0.30	1.2	0	0	0.025	0227A2U	0227A1Da
42021	1	RCP	5.55	5.48	22.81	0.30	1.2	0	0	0.025	0227A2U	0227A1D
42027	3	RCBC	5.80	5.57	42.78	0.55	0	1.5	0.6	0.025	0227AB1U	0227A3U
42043	1	RCP	0.11	0.11	55.98	0.00	0.75	0	0	0.025	0205C7U	0205C6U
42045	1	RCP	0.11	0.11	54.18	0.00	0.75	0	0	0.025	0205C6U	0205C5U
42212	3	RCBC	-0.88	-0.96	64.98	0.12	0	3.6	2.1	0.025	0290A2U	0290A1U
42216	1	RCP	0.11	0.07	47.42	0.08	1.5	0	0	0.025	0290A15U	0290A14U
42223	1	RCP	0.07	0.05	35.29	0.06	1.5	0	0	0.025	0290A14U	0290A13U
42228	1	RCP	0.05	0.02	42.93	0.07	1.5	0	0	0.025	0290A13U	0290A12U
42235	1	RCP	0.02	-0.01	37.80	0.08	1.5	0	0	0.025	0290A12U	0290A11U
42242	1	RCP	-0.01	-0.31	13.45	0.00	1.5	0	0	0.025	0290A11U	0290A10U
42252	1	RCP	-0.34	-0.36	38.73	0.05	1.8	0	0	0.025	0290A9U	0290A8U
42257	1	RCP	-0.36	-0.38	33.91	0.05	1.8	0	0	0.025	0290A8U	0290A7U
42262	1	RCP	-0.38	-0.41	60.02	0.05	1.8	0	0	0.025	0290A7U	0290A6U
42269	1	RCP	-0.41	-0.44	57.17	0.05	1.8	0	0	0.025	0290A6U	0290A06U
42274	1	RCP	-0.44	-0.46	29.72	0.05	1.8	0	0	0.025	0290A06U	0290A5U
42299	3	RCBC	1.04	0.81	50.77	0.12	0	0.6	0.6	0.025	0290AD6U	0290AD5U
42305	3	RCBC	0.81	0.43	117.03	0.08	0	0.9	0.75	0.025	0290AD5U	0290AD4U
42309	3	RCBC	0.43	0.22	101.04	0.06	0	1.2	0.9	0.025	0290AD4U	0290AD3U
42313	1	RCP	0.22	0.07	8.00	0.12	1.2	0	0	0.025	0290AD3U	0290AD2U
42325	1	RCP	0.07	-0.30	62.36	0.60	1.35	0	0	0.025	0290AD2U	0290AD1U
42329	1	RCP	-0.30	-0.46	26.00	0.60	1.35	0	0	0.025	0290AD1U	0290A5U
42331	1	RCP	-0.46	-0.63	31.60	0.52	1.8	0	0	0.025	0290A5U	0290A4U
42336	1	RCP	-0.63	-0.72	18.80	0.52	1.8	0	0	0.025	0290A4U	0290A3U
42341	1	RCP	-0.72	-0.88	30.00	0.52	1.8	0	0	0.025	0290A3U	0290A2U
42354	1	RCP	0.32	0.28	37.26	0.11	1.05	0	0	0.025	0290AA6U	0290AA5U
42358	1	RCP	0.28	0.26	11.64	0.17	1.05	0	0	0.025	0290AA5U	0290AA4U
42362	1	RCP	0.26	0.08	15.66	0.38	1.05	0	0	0.025	0290AA4U	0290AA3U
42366	1	RCP	0.08	-0.29	22.20	0.99	1.35	0	0	0.025	0290AA3U	0290AA2U
42370	1	RCP	-0.29	-0.31	17.00	0.12	1.5	0	0	0.025	0290AA2U	0290AA1U
42378	1	RCP	0.25	-0.14	16.80	0.24	1.05	0	0	0.025	0290AAB2U	0290AAB1U
42382	1	RCP	-0.14	-0.31	5.56	0.54	1.35	0	0	0.025	0290AAB1U	0290AA1U
42386	1	RCP	-0.31	-0.88	16.94	0.12	1.5	0	0	0.025	0290AA1U	0290A2U
42392	3	RCBC	1.38	1.36	19.97	0.11	0	0.9	0.6	0.025	0203A6U	0203A5U
42396	3	RCBC	1.36	1.35	10.43	0.11	0	0.9	0.6	0.025	0203A5U	0203AH1U
42400	3	RCBC	1.35	1.34	7.87	0.11	0	0.9	0.6	0.025	0203AH1U	0203A4U
42402	3	RCBC	1.34	1.25	81.81	0.11	0	0.9	0.6	0.025	0203A4U	0203A3U
42406	3	RCBC	1.25	0.78	32.08	1.46	0	0.9	0.6	0.025	0203A3U	0203A03U
42416	1	RCP	0.66	0.43	31.00	0.74	0.9	0	0	0.025	0203A2U	0203A1D
42432	1	RCP	0.11	0.02	67.93	0.12	1.2	0	0	0.025	0249A6U	0249A5U
42434	1	RCP	0.02	-0.01	25.14	0.12	1.2	0	0	0.025	0249A5U	0249A4U
42436	1	RCP	-0.01	-0.04	30.65	0.12	1.2	0	0	0.025	0249A4U	0249A3U
42438	1	RCP	-0.04	-0.08	28.72	0.12	1.2	0	0	0.025	0249A3U	0249A2U
42440	1	RCP	-0.08	-0.11	23.34	0.12	1.2	0	0	0.025	0249A2U	0249A1D
42716	1	RCP	1.23	0.97	32.11	0.25	0.9	0	0	0.025	0290AZR5U	0290AZR4U
42720	1	RCP	0.97	0.79	50.71	0.20	1.05	0	0	0.025	0290AZR4U	0290AZR3U
42722	1	RCP	0.79	0.72	15.78	0.42	1.05	0	0	0.025	0290AZR3U	0290AZR2U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
42726	1	RCP	0.72	0.54	43.38	0.10	1.05	0	0	0.025	0290AZR2U	0290AZR1U
42728	1	RCP	0.54	-0.31	57.50	0.19	1.05	0	0	0.025	0290AZR1U	0290A10U
42817	3	RCBC	0.50	0.40	78.98	0.13	0	0.9	0.6	0.025	0287A4U	0287A3U
42821	3	RCBC	0.40	0.23	58.80	0.29	0	1.2	0.75	0.025	0287A3U	0287A2U
42823	3	RCBC	0.23	0.23	45.98	0.00	0	1.2	0.75	0.025	0287A2U	0287A1D
42839	1	RCP	0.53	0.23	85.79	0.35	0.9	0	0	0.025	0111A3U	0111A2U
42841	1	RCP	0.23	0.23	7.27	0.00	0.9	0	0	0.025	0111A2U	0111A1D
42895	1	RCP	0.40	0.39	18.47	0.08	1.05	0	0	0.025	0239D2U	0239D1D
42929	1	RCP	1.16	1.13	9.63	0.21	0.9	0	0	0.025	0243A15U	0243A14U
42931	1	RCP	1.13	1.08	36.21	0.06	0.9	0	0	0.025	0243A14U	0243A13U
42935	1	RCP	1.08	0.42	71.80	0.13	0.9	0	0	0.025	0243A13U	0243A12U
42957	1	RCP	0.42	0.41	16.14	0.04	1.35	0	0	0.025	0243A12U	0243A11U
42961	1	RCP	0.41	0.40	30.59	0.04	1.35	0	0	0.025	0243A11U	0243A10U
42965	1	RCP	0.40	0.00	90.57	0.07	1.35	0	0	0.025	0243A10U	0243A9U
48499	1	RCP	4.74	4.71	35.50	0.11	1.2	0	0	0.025	0216A4U	0216A3U
48501	1	RCP	4.86	4.84	17.49	0.11	1.2	0	0	0.025	0216A7U	0216A6U
48503	1	RCP	4.95	4.86	78.77	0.12	1.2	0	0	0.025	0216A8U	0216A7U
48505	1	RCP	4.98	4.95	22.88	0.09	1.2	0	0	0.025	0216A9U	0216A8U
48512	1	RCP	5.02	4.99	7.65	0.39	1.2	0	0	0.025	0216AH1U	0216A10U
48514	1	RCP	3.61	3.59	5.76	0.32	1.2	0	0	0.025	0237AKB01U	0237AK1U
48518	1	RCP	5.44	5.31	39.02	0.28	1.05	0	0	0.025	0216A14U	0216A13U
48524	1	RCP	5.90	5.84	17.36	0.35	0.9	0	0	0.025	0216A16U	0216A15U
48572	1	RCP	5.84	5.44	75.57	0.32	0.9	0	0	0.025	0216A15U	0216A14U
48582	1	RCP	4.54	4.45	71.32	0.12	0.9	0	0	0.025	0230A5U	0230A3U
48584	1	RCP	4.57	4.54	27.51	0.12	0.9	0	0	0.025	0230A6U	0230A5U
48590	1	RCP	4.78	4.76	20.16	0.12	0.9	0	0	0.025	0230A8U	0230A7U
48780	3	RCBC	-0.73	-0.73	56.97	0.00	0	0.6	0.57	0.025	0115E2U	0115E1D
49375	1	RCP	11.04	10.78	117.12	0.22	0.9	0	0	0.025	0172A2U	0172A1D
49387	1	RCP	11.14	11.04	47.43	0.22	0.9	0	0	0.025	0172A3U	0172A2U
49390	1	RCP	5.69	5.57	48.45	0.26	1.2	0	0	0.025	0227A4U	0227A3U
49392	1	RCP	5.69	5.57	48.45	0.26	1.2	0	0	0.025	0227A4U	0227A3U
49416	1	RCP	8.02	7.99	16.54	0.18	1.5	0	0	0.025	0166A11U	0166A10U
49420	1	RCP	8.35	8.02	10.94	0.27	1.2	0	0	0.025	0166AM1U	0166A11U
49426	1	RCP	7.60	7.41	86.89	0.22	1.5	0	0	0.025	0166A7U	0166A6U
49509	1	RCP	7.30	7.17	80.30	0.16	1.05	0	0	0.025	0051B8U	0051B6U
49511	1	RCP	7.61	7.30	77.28	0.21	0.9	0	0	0.025	0051B9U	0051B8U
49513	1	RCP	7.61	7.61	16.51	0.00	0.9	0	0	0.025	0051B10U	0051B9U
49515	1	RCP	7.62	7.61	9.45	0.11	0.9	0	0	0.025	0051B11U	0051B10U
49517	1	RCP	7.81	7.62	110.36	0.17	0.9	0	0	0.025	0051B12U	0051B11U
49557	1	RCP	7.50	7.23	113.76	0.10	0.9	0	0	0.025	0227AH4U	0227AH3U
49559	1	RCP	7.51	7.50	11.11	0.09	0.9	0	0	0.025	0227AHE1U	0227AH4U
49561	1	RCP	7.52	7.51	12.67	0.08	0.9	0	0	0.025	0227AHE2U	0227AHE1U
49605	1	RCP	7.22	7.11	46.40	0.09	1.05	0	0	0.025	0227AH2U	0227AH02U
49609	1	RCP	7.23	7.22	13.77	0.07	1.05	0	0	0.025	0227AH3U	0227AH2U
49758	1	RCP	8.70	8.69	5.88	0.11	1.65	0	0	0.025	0155A15U	0155A015U
49852	1	RCP	1.92	1.81	30.12	0.38	1.05	0	0	0.025	0074C12U	0074C10U
49854	1	RCP	1.97	1.92	24.15	0.22	1.05	0	0	0.025	0074C13U	0074C12U
49860	3	RCBC	1.98	1.97	17.26	0.12	0	2	1	0.025	0074C14U	0074C13U
49865	3	RCBC	2.06	1.98	65.00	0.12	0	2	1	0.025	0074C15U	0074C14U
49871	3	RCBC	2.18	2.06	62.80	0.19	0	1.6	1	0.025	0074C16U	0074C15U
49875	3	RCBC	2.21	2.18	19.75	0.10	0	1.6	1	0.025	0074C17U	0074C16U
49882	3	RCBC	2.36	2.21	94.99	0.16	0	1.2	1	0.025	0074C18U	0074C17U
49892	1	RCP	2.42	2.36	25.25	0.24	0.9	0	0	0.025	0074C19U	0074C18U
42967	1	RCP	0.00	-0.03	72.15	0.04	1.65	0	0	0.025	0243A9U	0243A8U
42971	1	RCP	-0.03	-0.06	42.99	0.02	1.35	0	0	0.025	0243A8U	0243A7U
42999	1	RCP	1.31	-0.06	67.54	2.03	0.9	0	0	0.025	0243AH1U	0243A7U
43001	1	RCP	-0.06	-0.06	11.31	0.00	1.35	0	0	0.025	0243A7U	0243A6U
43005	1	RCP	-0.06	-0.11	136.38	0.04	1.35	0	0	0.025	0243A6U	0243A5U
43019	1	RCP	-0.11	-0.11	7.03	0.04	1.35	0	0	0.025	0243A5U	0243A4U
43023	1	RCP	-0.11	-0.15	100.65	0.04	1.5	0	0	0.025	0243A4U	0243A3U
43027	1	RCP	-0.15	-0.27	109.13	0.11	1.5	0	0	0.025	0243A3U	0243A2U
43051	1	RCP	1.68	1.12	62.82	0.89	0.9	0	0	0.025	0243AA4U	0243AA3U
43053	1	RCP	1.12	1.03	9.51	0.89	0.9	0	0	0.025	0243AA3U	0243AA2U
43057	1	RCP	1.03	0.42	68.77	0.89	0.9	0	0	0.025	0243AA2U	0243AA1U
43061	1	RCP	0.42	-0.27	78.45	0.89	0.9	0	0	0.025	0243AA1U	0243A2U
43065	1	RCP	-0.27	-0.29	40.17	0.04	1.65	0	0	0.025	0243A2U	0243A02U
43423	1	RCP	0.65	0.40	41.27	0.61	0.6	0	0	0.025	0029A07U	0029A007U
43425	1	RCP	0.27	-0.05	115.91	0.28	1.2	0	0	0.025	0029A6U	0029A5U
43449	3	RCBC	1.52	1.51	9.67	0.11	0	1.35	0.75	0.025	0029AC7U	0029AC6U
43453	3	RCBC	1.51	1.48	23.38	0.11	0	1.35	0.75	0.025	0029AC6U	0029AC5U
43455	3	RCBC	1.48	1.45	35.64	0.11	0	1.35	0.75	0.025	0029AC5U	0029AC4U
43461	3	RCBC	1.45	1.45	22.82	0.00	0	1.35	0.75	0.025	0029AC4U	0029AC3U
43463	1	RCP	1.45	1.38	2.54	2.76	1.2	0	0	0.025	0029AC3U	0029AC2U
43467	1	RCP	1.38	1.38	2.43	0.00	1.2	0	0	0.025	0029AC2U	0029AC1U
43469	1	RCP	1.38	-0.05	147.67	0.96	1.2	0	0	0.025	0029AC1U	0029A5U
43471	1	RCP	-0.05	-0.25	114.80	0.18	1.2	0	0	0.025	0029A05U	0029A4U
43476	1	RCP	-0.25	-0.25	88.93	0.00	1.2	0	0	0.025	0029A4U	0029A3U
43479	1	RCP	-0.25	-0.58	211.16	0.16	1.2	0	0	0.025	0029A3U	0029A2U
43482	1	RCP	-0.58	-0.59	20.86	0.05	1.2	0	0	0.025	0029A2U	0029A1D
43540	1	RCP	1.02	0.69	103.39	0.32	0.6	0	0	0.025	0029AA3U	0029AA2U
43542	1	RCP	0.69	0.33	112.78	0.32	0.9	0	0	0.025	0029AA2U	0029AA1U
43544	1	RCP	0.33	-0.05	120.47	0.32	1.05	0	0	0.025	0029AA1U	0029A5U
43554	3	RCBC	1.28	1.21	90.87	0.08	0	2.1	0.6	0.025	0040A5U	0040A4U
43558	3	RCBC	1.21	1.20	10.25	0.08	0	1.2	0.6	0.025	0040A4U	0040A04U
43574	3	RCBC	1.50	1.30	71.48	0.27	0	0.75	0.6	0.025	0040AE4U	0040AE3U
43576	3	RCBC	1.30	1.20	39.70	0.26	0	0.9	0.6	0.025	0040AE3U	0040AE2U
43588	3	RCBC	1.20	1.20	2.76	0.26	0	1.5	0.6	0.025	0040AE2U	0040AE1U
43592	3	RCBC	1.20	1.17	7.69	0.36	0	1.5	0.6	0.025	0040AE1U	0040A3U
43594	3	RCBC	1.17	1.16	4.79	0.09	0	2.1	0.6	0.025	0040A3U	0040A2U
43598	3	RCBC	1.16	1.16	2.59	0.00	0	2.1	0.6	0.025	0040A2U	0040A1D
43605	1	RCP	1.27	0.70	100.90	0.56	0.9	0	0	0.025	0039A7U	0039A6U
43611	1	RCP	1.47	0.70	98.13	0.78	0.9	0	0	0.025	0039AD1U	0039A6U
43619	1	RCP	0.70	0.23	91.80	0.52	1.2	0	0	0.025	0039A6U	0039A5U
43621	1	RCP	0.23	0.23	9.69	0.00	1.2	0	0	0.025	0039A5U	0039A4U
43626	1	RCP	0.23	0.23	9.74	0.00	0.9	0	0	0.025	0039A5U	0039B4U
43647	1	RCP	0.15	-0.08	87.50	0.25	1.35	0	0	0.025	0039A3U	0039A2U
43649	1	RCP	-0.08	-0.09	9.49	0.16	1.35	0	0	0.025	0039A2U	0039A1D
43652	1	RCP	0.15	-0.08	89.11	0.25	1.05	0	0	0.025	0039B3U	0039B2U
43654	1	RCP	-0.08	-0.09	7.02	0.21	1.05	0	0	0.025	0039B2U	0039B1D
43685	1	RCP	1.05	0.25	158.94	0.50	0.9	0	0	0.025	0168A2U	0168A1D
43916	1	RCP	0.92	0.35	88.45	0.64	0.9	0	0	0.025	0059A10U	0059A9U
43918	1	RCP	0.35	0.18	26.90	0.64	0.9	0	0	0.025	0059A9U	0059A8U
43922	1	RCP	0.18	0.04	22.77	0.63	0.9	0	0	0.025	0059A8U	0059A7U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
43932	1	RCP	0.04	-0.02	8.80	0.63	1.05	0	0	0.025	0059A7U	0059A6U
43934	1	RCP	-0.02	-0.03	2.04	0.63	1.05	0	0	0.025	0059A6U	0059A5U
43936	1	RCP	-0.03	-0.03	18.50	0.01	1.05	0	0	0.025	0059A5U	0029D2U
43938	1	RCP	-0.03	-0.01	3.34	-0.60	1.05	0	0	0.025	0029D2U	0059A3U
43940	1	RCP	-0.01	-0.04	68.21	0.05	1.05	0	0	0.025	0059A3U	0059A2U
43946	1	RCP	-0.04	-0.07	54.80	0.05	1.05	0	0	0.025	0059A2U	0059A1D
43964	3	RCBC	2.80	2.68	27.47	0.45	0	0.75	0.6	0.025	0282AA02U	0282AA1U
43966	1	RCP	2.68	2.49	109.44	0.17	1.2	0	0	0.025	0282AA1U	0282AA01U
44040	3	RCBC	1.12	1.07	36.35	0.12	0	1.2	0.6	0.025	0189A3U	0189A2U
44042	3	RCBC	1.07	1.05	9.25	0.23	0	1.2	0.6	0.025	0189A2U	0189A1D
44088	3	RCBC	3.35	2.77	42.20	1.37	0	0.6	0.75	0.025	0251N2U	0251N1D
44130	1	RCP	3.54	3.51	13.46	0.22	0.9	0	0	0.025	0251AHlU	0251A11U
44132	1	RCP	3.51	3.50	3.45	0.22	0.9	0	0	0.025	0251A11U	0251A10U
44134	1	RCP	3.50	3.38	70.70	0.17	0.9	0	0	0.025	0251A10U	0251A9U
44138	1	RCP	3.38	3.36	11.70	0.17	0.9	0	0	0.025	0251A9U	0251A8U
44140	1	RCP	3.36	3.35	6.11	0.17	0.9	0	0	0.025	0251A8U	0251A7U
44152	1	RCP	3.32	3.19	63.06	0.21	0.9	0	0	0.025	0251M7U	0251M6U
44154	1	RCP	3.19	2.99	78.00	0.25	0.9	0	0	0.025	0251M6U	0251M5U
44160	1	RCP	2.99	2.80	80.43	0.25	1.05	0	0	0.025	0251M5U	0251M4U
44164	1	RCP	2.80	2.75	19.92	0.25	1.05	0	0	0.025	0251M4U	0251M3U
44166	1	RCP	2.75	2.71	14.37	0.25	1.05	0	0	0.025	0251M3U	0251M2U
44168	1	RCP	2.71	2.49	87.21	0.25	1.05	0	0	0.025	0251M2U	0251M1D
44223	1	RCP	1.97	1.96	24.71	0.07	0.9	0	0	0.025	0251GC1U	0251G4U
44244	1	RCP	4.17	4.08	46.61	0.19	0.6	0	0	0.025	0251DC3U	0251DC2U
44246	1	RCP	4.08	3.98	55.09	0.19	0.6	0	0	0.025	0251DC2U	0251DC1U
44252	1	RCP	3.97	3.94	10.44	0.31	0.6	0	0	0.025	0251D8U	0251D7U
44258	1	RCP	3.94	3.84	38.70	0.25	0.6	0	0	0.025	0251D7U	0251D6U
44260	1	RCP	3.84	3.56	114.50	0.25	0.75	0	0	0.025	0251D6U	0251D5U
44274	1	RCP	3.56	3.46	31.55	0.30	0.9	0	0	0.025	0251D5U	0251D4U
44276	1	RCP	3.46	3.26	66.80	0.30	0.9	0	0	0.025	0251D4U	0251D3U
44278	1	RCP	3.26	3.17	27.45	0.34	0.9	0	0	0.025	0251D3U	0251D2U
44284	1	RCP	3.17	3.15	21.20	0.08	0.9	0	0	0.025	0251D2U	0251D1D
44303	3	RCBC	3.78	3.21	63.30	0.90	0	0.9	0.6	0.025	0251C4U	0251C3U
44305	3	RCBC	3.21	2.82	23.74	1.65	0	0.9	0.6	0.025	0251C3U	0251C2U
44309	3	RCBC	2.82	2.70	10.85	1.09	0	0.9	0.75	0.025	0251C2U	0251C1D
44347	3	RCBC	3.61	3.53	28.18	0.28	0	1.2	0.6	0.025	0125BC2U	0125BC1U
44349	3	RCBC	3.53	3.50	2.53	0.55	0	1.2	0.6	0.025	0125BC1U	0125B7U
44355	3	RCBC	3.50	3.29	90.33	0.22	0	1.2	0.6	0.025	0125B7U	0125B6U
44358	3	RCBC	3.29	3.13	71.98	0.22	0	1.2	0.6	0.025	0125B6U	0125B5U
44409	1	RCP	3.39	3.27	24.31	0.50	0.9	0	0	0.025	0291A11U	0291A10U
44413	1	RCP	3.27	2.80	46.39	1.02	0.9	0	0	0.025	0291A10U	0291A9U
44417	1	RCP	2.80	2.75	46.19	0.10	0.9	0	0	0.025	0291A9U	0291A8U
44431	1	RCP	2.75	2.68	60.20	0.10	1.05	0	0	0.025	0291A8U	0291A7U
44437	1	RCP	2.68	2.33	46.69	0.76	1.05	0	0	0.025	0291A7U	0291A6U
44443	1	RCP	2.33	2.18	54.10	0.28	1.2	0	0	0.025	0291A6U	0291A5U
44447	1	RCP	2.18	2.08	34.55	0.28	1.2	0	0	0.025	0291A5U	0291A4U
44451	1	RCP	2.08	1.88	70.86	0.29	1.2	0	0	0.025	0291A4U	0291A3U
44455	1	RCP	1.88	1.75	31.47	0.43	1.2	0	0	0.025	0291A3U	0291A2U
44463	1	RCP	1.75	1.44	69.89	0.44	1.2	0	0	0.025	0291A2U	0291A1D
44558	1	RCP	0.63	0.56	15.60	0.45	0.45	0	0	0.025	0266A5U	0266A4U
44560	1	RCP	0.56	0.51	11.49	0.45	0.45	0	0	0.025	0266A4U	0266A3U
44562	1	RCP	0.51	0.32	41.14	0.45	0.6	0	0	0.025	0266A3U	0266A2U
44566	1	RCP	0.32	0.08	53.41	0.45	0.6	0	0	0.025	0266A2U	0266A1D
44600	1	RCP	0.38	0.06	44.63	0.74	0.9	0	0	0.025	0311A5U	0311A4U
44606	1	RCP	0.06	-0.12	24.32	0.74	0.9	0	0	0.025	0311A4U	0311A3U
44608	1	RCP	-0.12	-0.17	6.12	0.73	0.9	0	0	0.025	0311A3U	0311A2U
44610	1	RCP	-0.17	-0.42	33.89	0.73	0.9	0	0	0.025	0311A2U	0311A1D
44646	1	RCP	1.37	1.26	23.50	0.49	0.9	0	0	0.025	0245A7U	0245A6U
44650	1	RCP	1.26	1.25	1.00	0.49	0.9	0	0	0.025	0245A6U	0245A5U
44652	1	RCP	1.25	1.18	13.51	0.51	0.9	0	0	0.025	0245A5U	0245A4U
44654	1	RCP	1.18	1.11	13.25	0.51	1.05	0	0	0.025	0245A4U	0245A3U
44664	1	RCP	1.11	1.02	18.57	0.51	1.05	0	0	0.025	0245A3U	0245A2U
44666	1	RCP	1.02	1.01	1.54	0.51	1.05	0	0	0.025	0245A2U	0245A1D
44671	1	RCP	0.87	0.81	19.89	0.32	0.9	0	0	0.025	0158C6U	0158C5U
44675	1	RCP	0.81	0.71	31.22	0.32	0.9	0	0	0.025	0158C5U	0158C4U
44677	1	RCP	0.71	0.58	40.26	0.32	0.9	0	0	0.025	0158C4U	0158C3U
44679	1	RCP	0.58	0.49	29.84	0.31	0.9	0	0	0.025	0158C3U	0158C2U
44681	1	RCP	0.49	0.47	25.44	0.06	0.9	0	0	0.025	0158C2U	0158C02U
44715	1	RCP	4.44	4.14	79.40	0.38	0.9	0	0	0.025	0230A2U	0230A1D
44866	1	RCP	1.80	1.65	21.82	0.69	0.9	0	0	0.025	0296A4U	0296A2U
44868	1	RCP	1.80	1.65	21.82	0.69	0.9	0	0	0.025	0296A4U	0296A2U
44869	1	RCP	1.80	1.65	21.82	0.69	0.9	0	0	0.025	0296A4U	0296A2U
44893	1	RCP	1.63	1.48	48.71	0.26	0.9	0	0	0.025	0088AA5U	0088AA4U
44899	1	RCP	1.74	1.63	44.76	0.19	0.9	0	0	0.025	0088AA6U	0088AA5U
44905	1	RCP	1.85	1.74	57.35	0.15	0.9	0	0	0.025	0088AA7U	0088AA6U
44911	1	RCP	0.60	0.44	95.75	0.17	1.5	0	0	0.025	0088A4U	0088A3U
44913	1	RCP	0.99	0.60	5.53	0.25	1.2	0	0	0.025	0088AB1U	0088A4U
44919	1	RCP	1.27	0.99	41.88	0.25	1.05	0	0	0.025	0088AB2U	0088AB1U
44925	1	RCP	1.39	1.27	43.02	0.22	1.05	0	0	0.025	0088AB3U	0088AB2U
44931	1	RCP	1.50	1.39	42.80	0.20	1.05	0	0	0.025	0088AB4U	0088AB3U
44937	1	RCP	1.61	1.50	46.17	0.20	1.05	0	0	0.025	0088AB5U	0088AB4U
44943	1	RCP	1.88	1.61	49.33	0.19	0.9	0	0	0.025	0088AB06U	0088AB5U
44949	1	RCP	2.04	1.93	49.18	0.22	0.9	0	0	0.025	0088AB7U	0088AB6U
44975	1	RCP	0.77	0.60	92.45	0.16	1.5	0	0	0.025	0088A5U	0088A4U
44979	1	RCP	0.78	0.77	7.70	0.13	1.5	0	0	0.025	0088A6U	0088A5U
44981	1	RCP	1.09	0.78	4.22	0.38	1.2	0	0	0.025	0088A7U	0088A6U
44987	1	RCP	1.22	1.09	42.92	0.24	1.2	0	0	0.025	0088A8U	0088A7U
44993	1	RCP	1.35	1.22	43.51	0.25	1.2	0	0	0.025	0088A9U	0088A8U
44999	1	RCP	1.49	1.35	52.91	0.22	1.2	0	0	0.025	0088A10U	0088A9U
45005	1	RCP	1.60	1.49	44.09	0.18	1.2	0	0	0.025	0088A11U	0088A10U
45011	1	RCP	1.74	1.60	39.84	0.28	1.2	0	0	0.025	0088A12U	0088A11U
45013	1	RCP	2.07	1.74	18.95	0.11	0.9	0	0	0.025	0088A13U	0088A12U
45017	1	RCP	2.28	2.07	82.77	0.26	0.9	0	0	0.025	008814U	0088A13U
45574	3	RCBC	0.66	2.40	0.35	-498.16	0	2	1.37	0.025	0044AA1U	0044A4U
45606	3	RCBC	5.67	5.17	32.82	1.54	0	1.2	1.2	0.025	0123A9U	0123A8U
45610	3	RCBC	5.80	5.67	8.30	1.54	0	1.05	1.05	0.025	0123A10U	0123A9U
45632	3	RCBC	18.71	15.00	79.49	4.66	0	1.05	1.05	0.025	0123A17U	0123A16U
45646	3	RCBC	20.80	19.80	59.12	1.69	0	1.05	1.05	0.025	0123A20U	0123A19U
Link_104	3	RCBC	15.00	14.32	16.46	4.13	0	1.05	1.05	0.025	0123A16U	0123A14U
71554	1	RCP	4.16	4.15	3.33	0.25	1.05	0	0	0.025	0127A05U	0127A4U
45648	3	RCBC	23.50	20.80	42.60	6.33	0	0.75	0.75	0.025	0123A21U	0123A20U
45700	3	RCBC	3.57	2.31	109.81	1.15	0	2.4	0.9	0.025	0093A02U	0093A1D
45734	3	RCBC	7.85	7.45	58.80	0.67	0	1.425	1.05	0.025	0165B4U	0165B3U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
45738	3	RCBC	8.81	7.85	108.42	0.89	0	1.425	1.05	0.025	0165B5U	0165B4U
45740	3	RCBC	9.73	8.81	17.63	5.23	0	1.425	1.05	0.025	0165B6U	0165B5U
45766	1	RCP	9.84	9.80	21.58	0.18	0.9	0	0	0.025	0165B9U	0165B8U
45835	3	RCBC	7.51	7.46	9.65	0.57	0	2.85	1.425	0.025	0134AD1U	0134A10U
45842	1	RCP	8.95	7.46	93.95	1.58	0.9	0	0	0.025	0134A11U	0134A10U
45844	1	RCP	9.77	8.95	91.91	0.90	0.9	0	0	0.025	0134A12U	0134A11U
45846	1	RCP	10.59	9.77	88.67	0.93	0.9	0	0	0.025	0134A13U	0134A12U
45855	1	RCP	11.41	11.24	19.02	0.90	0.9	0	0	0.025	0134A17U	0134A16U
45857	1	RCP	12.09	11.41	77.94	0.86	0.9	0	0	0.025	0134A18U	0134A17U
45867	1	RCP	2.21	2.10	35.97	0.31	0.9	0	0	0.025	0074H2U	0074H1D
45877	1	RCP	3.53	3.51	152.40	0.01	1.05	0	0	0.025	0307A9U	0307A8U
45879	1	RCP	3.54	3.53	10.35	0.10	1.05	0	0	0.025	0307A10U	0307A9U
45917	1	RCP	2.87	2.74	60.96	0.22	1.05	0	0	0.025	0135A6U	0135A5U
45921	1	RCP	3.01	2.87	60.96	0.22	1.05	0	0	0.025	0135A7U	0135A6U
45927	1	RCP	3.22	3.01	97.05	0.22	1.05	0	0	0.025	0135A8U	0135A7U
45929	1	RCP	3.34	3.22	25.78	0.45	1.05	0	0	0.025	0135A9U	0135A8U
45935	1	RCP	3.70	3.34	79.55	0.45	0.9	0	0	0.025	0135A10U	0135A9U
45941	1	RCP	4.16	3.70	102.60	0.45	0.9	0	0	0.025	0135A11U	0135A10U
45947	1	RCP	4.44	4.16	60.96	0.45	0.9	0	0	0.025	0135A12U	0135A11U
45951	1	RCP	4.72	4.44	60.96	0.45	0.9	0	0	0.025	0135A13U	0135A12U
45983	1	RCP	3.46	3.38	36.20	0.24	1.2	0	0	0.025	0089A8U	0089A7U
45989	1	RCP	3.50	3.46	16.61	0.24	1.2	0	0	0.025	0089A9U	0089A8U
45991	1	RCP	3.64	3.50	55.57	0.24	1.2	0	0	0.025	0089A10U	0089A9U
45995	1	RCP	4.08	3.64	130.12	0.34	1.05	0	0	0.025	0089A11U	0089A10U
46001	1	RCP	4.39	4.08	84.67	0.36	0.9	0	0	0.025	0089A12U	0089A11U
46005	1	RCP	4.43	4.39	11.33	0.37	0.9	0	0	0.025	0089A13U	0089A12U
46035	1	RCP	3.00	2.79	143.92	0.15	1.5	0	0	0.025	0019A5U	0019A4U
46044	1	RCP	3.07	3.00	69.51	0.10	1.5	0	0	0.025	0019A6U	0019A5U
46047	1	RCP	3.15	3.07	25.41	0.31	1.5	0	0	0.025	0019A7U	0019A6U
46058	1	RCP	3.41	3.15	118.45	0.19	1.35	0	0	0.025	0019A8U	0019A7U
46061	1	RCP	3.58	3.41	59.01	0.20	1.35	0	0	0.025	0019AJ1U	0019A8U
46067	1	RCP	3.68	3.58	1.93	5.01	1.2	0	0	0.025	0019AJ2U	0019AJ1U
46069	1	RCP	3.92	3.68	70.13	0.35	1.2	0	0	0.025	0019AJ3U	0019AJ2U
46071	1	RCP	4.13	3.92	56.86	0.34	1.2	0	0	0.025	0019AJ4U	0019AJ3U
46356	1	RCP	4.01	3.87	33.37	0.40	0.9	0	0	0.025	0232A40U	0232A39U
46358	1	RCP	3.87	3.83	10.07	0.40	0.9	0	0	0.025	0232A39U	0232A38U
46360	1	RCP	3.83	3.81	5.42	0.40	0.9	0	0	0.025	0232A38U	0232A37U
46362	1	RCP	3.81	3.62	47.05	0.40	0.9	0	0	0.025	0232A37U	0232A36U
46366	1	RCP	3.57	3.33	62.06	0.39	0.9	0	0	0.025	0232A35U	0232A34U
46368	1	RCP	3.33	3.23	24.83	0.39	0.9	0	0	0.025	0232A34U	0232A33U
46370	1	RCP	3.23	3.17	28.99	0.22	0.9	0	0	0.025	0232A33U	0232A32U
46372	1	RCP	3.17	3.13	15.57	0.22	0.9	0	0	0.025	0232A32U	0232A31U
46374	1	RCP	3.13	3.13	8.61	0.00	0.9	0	0	0.025	0232A31U	0232A30U
46397	1	RCP	-0.29	-0.32	55.34	0.05	1.65	0	0	0.025	0243A02U	0243A1D
46453	1	RCP	4.14	4.13	1.50	0.37	1.2	0	0	0.025	0019AJ5U	0019AJ4U
46473	1	RCP	4.18	4.14	11.00	0.37	1.05	0	0	0.025	0019AJ6U	0019AJ5U
46475	1	RCP	4.37	4.18	52.15	0.37	1.05	0	0	0.025	0019AJ7U	0019AJ6U
46477	3	RCBC	4.58	4.37	46.69	0.46	0	1.2	0.6	0.025	0019AJ8U	0019AJ7U
46481	1	RCP	4.58	4.58	5.32	0.00	0.9	0	0	0.025	0019AJ9U	0019AJ8U
46497	1	RCP	3.43	3.41	1.93	0.83	1.2	0	0	0.025	0019A9U	0019A8U
46499	1	RCP	3.82	3.43	47.17	0.83	1.2	0	0	0.025	0019A10U	0019A9U
46501	1	RCP	4.17	3.82	42.80	0.23	1.2	0	0	0.025	0019A11U	0019A10U
46503	1	RCP	4.19	4.17	14.57	0.12	1.2	0	0	0.025	0019A12U	0019A11U
46507	1	RCP	4.20	4.19	10.17	0.12	1.2	0	0	0.025	0019A13U	0019A12U
46511	1	RCP	4.76	4.20	102.73	0.55	1.2	0	0	0.025	0019A14U	0019A13U
46537	1	RCP	4.89	4.76	105.50	0.12	0.9	0	0	0.025	0019A15U	0019A14U
46543	1	RCP	5.04	4.89	114.97	0.10	0.9	0	0	0.025	0019A16U	0019A15U
46880	1	RCP	4.01	3.74	13.59	1.95	0.6	0	0	0.025	0140A17U	0140A16U
46930	1	RCP	4.29	4.25	30.43	0.03	1.8	0	0	0.025	0176A6U	0176A5U
46934	1	RCP	4.32	4.29	63.18	0.05	1.8	0	0	0.025	0176A7U	0176A6U
46945	1	RCP	4.69	4.36	21.26	0.09	1.5	0	0	0.025	0176A9U	0176A8U
46949	1	RCP	4.71	4.69	24.45	0.08	1.5	0	0	0.025	0176A010U	0176A9U
46953	1	RCP	4.78	4.76	18.97	0.11	1.5	0	0	0.025	0176A11U	0176A10U
46955	1	RCP	5.39	4.78	15.39	0.13	0.9	0	0	0.025	0176AG1U	0176A11U
46963	1	RCP	4.82	4.78	31.87	0.03	1.5	0	0	0.025	0176A12U	0176A11U
46967	1	RCP	4.84	4.82	27.51	0.07	1.5	0	0	0.025	0176A13U	0176A12U
46971	1	RCP	4.85	4.84	34.20	0.03	1.5	0	0	0.025	0176A14U	0176A13U
46975	1	RCP	4.86	4.85	6.96	0.14	1.5	0	0	0.025	0176A15U	0176A14U
46983	1	RCP	5.09	4.86	92.34	0.09	1.35	0	0	0.025	0176A16U	0176A15U
46987	1	RCP	5.10	5.09	8.22	0.12	1.35	0	0	0.025	0176A18U	0176A16U
46999	1	RCP	5.41	5.10	21.36	0.05	1.05	0	0	0.025	0176A19U	0176A18U
47003	1	RCP	5.49	5.41	79.16	0.09	1.05	0	0	0.025	0176A20U	0176A19U
47037	1	RCP	4.55	4.06	61.44	0.80	1.35	0	0	0.025	0202A3U	0202A2U
47039	1	RCP	4.65	4.56	90.71	0.10	1.35	0	0	0.025	0202A4U	0202A04U
47041	1	RCP	4.65	4.65	0.55	0.10	1.35	0	0	0.025	0202A5U	0202A4U
47049	1	RCP	4.74	4.65	85.96	0.10	1.35	0	0	0.025	0202A6U	0202A5U
48489	1	RCP	5.16	4.99	99.67	0.17	1.05	0	0	0.025	0216A11U	0216A10U
48491	1	RCP	5.31	5.16	73.54	0.20	1.05	0	0	0.025	0216A12U	0216A11U
48493	1	RCP	5.31	5.31	9.67	0.21	1.05	0	0	0.025	0216A13U	0216A12U
48495	1	RCP	4.67	4.65	18.53	0.11	1.2	0	0	0.025	0216A2U	0216A1D
48497	1	RCP	4.71	4.67	32.36	0.11	1.2	0	0	0.025	0216A3U	0216A2U
49896	1	RCP	2.51	2.42	27.25	0.26	0.9	0	0	0.025	0074C20U	0074C19U
49902	1	RCP	2.66	2.51	48.25	0.27	0.9	0	0	0.025	0074C21U	0074C20U
49906	1	RCP	2.74	2.66	32.50	0.22	0.9	0	0	0.025	0074C22U	0074C21U
49908	1	RCP	3.05	2.74	4.00	1.00	0.9	0	0	0.025	0074C23U	0074C22U
51878	1	RCP	8.80	8.76	24.19	0.08	1.05	0	0	0.025	0166AMA3U	0166AMA2U
51882	1	RCP	9.60	8.80	96.06	0.69	0.9	0	0	0.025	0166AMA4U	0166AMA3U
52049	1	RCP	9.81	9.57	88.59	0.27	0.9	0	0	0.025	0209B54U	0209B53U
53300	1	RCP	8.24	7.89	38.02	0.13	0.9	0	0	0.025	0227A22U	0227A21U
53471	3	RCBC	2.39	2.38	15.87	0.04	0	3	1.35	0.025	0237A2U	0237A1D
53479	3	RCBC	2.43	2.38	30.94	0.16	0	3	1.35	0.025	0237A3U	0237A03U
53481	1	RCP	2.48	2.43	51.51	0.09	1.2	0	0	0.025	0237AB1U	0237A3U
53497	1	RCP	2.48	2.48	19.02	0.00	1.2	0	0	0.025	0237AB2U	0237AB1U
53517	1	RCP	2.48	2.48	10.59	0.00	1.2	0	0	0.025	0237AB3U	0237AB2U
53521	1	RCP	2.48	2.48	5.92	0.00	1.2	0	0	0.025	0237AB4U	0237AB3U
53523	1	RCP	2.56	2.48	64.77	0.13	1.2	0	0	0.025	0237AB5U	0237AB4U
53525	1	RCP	2.59	2.56	19.69	0.13	1.2	0	0	0.025	0237AB6U	0237AB5U
53537	1	RCP	2.60	2.59	9.03	0.13	1.2	0	0	0.025	0237AB7U	0237AB6U
53541	1	RCP	2.70	2.60	72.28	0.13	1.2	0	0	0.025	0237AB8U	0237AB7U
53545	1	RCP	3.05	2.70	20.64	1.69	1.2	0	0	0.025	0237AB9U	0237AB8U
53547	1	RCP	3.08	3.05	8.63	0.36	1.2	0	0	0.025	0237AB010U	0237AB9U
53561	1	RCP	3.43	3.42	1.38	0.35	0.9	0	0	0.025	0237AB11U	0237AB0011U
53567	1	RCP	3.63	3.43	56.86	0.35	0.9	0	0	0.025	0237AB12U	0237AB11U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
53569	1	RCP	3.63	3.63	0.67	0.47	0.9	0	0	0.025	0237AB13U	0237AB12U
53571	1	RCP	3.73	3.63	21.18	0.47	0.9	0	0	0.025	0237AB14U	0237AB13U
53699	3	RCBC	2.51	2.43	50.59	0.16	0	3	1.35	0.025	0237A4U	0237A3U
53707	3	RCBC	2.79	2.51	177.32	0.16	0	3	1.35	0.025	0237A5U	0237A4U
53715	3	RCBC	2.98	2.79	110.32	0.17	0	3	1.35	0.025	0237A6U	0237A5U
53721	3	RCBC	3.08	2.98	69.08	0.14	0	2.1	1.35	0.025	0237A07U	0237A6U
53735	3	RCBC	3.09	3.08	9.03	0.14	0	2.1	1.35	0.025	0237A7U	0237A07U
53739	3	RCBC	3.18	3.09	63.86	0.14	0	2.1	1.35	0.025	0237A8U	0237A7U
53751	1	RCP	3.74	3.25	48.86	0.10	0.9	0	0	0.025	0237AJ1U	0237A9U
53753	1	RCP	3.79	3.74	21.64	0.09	0.9	0	0	0.025	0237AJ2U	0237AJ1U
53757	1	RCP	3.88	3.79	24.15	0.12	0.9	0	0	0.025	0237AJ3U	0237AJ2U
53759	1	RCP	3.99	3.88	11.57	0.09	0.9	0	0	0.025	0237AJ4U	0237AJ3U
53805	3	RCBC	2.50	2.43	13.24	0.54	0	0.9	0.6	0.025	0074M2U	0074M1U
53807	3	RCBC	2.50	2.43	13.24	0.54	0	0.9	0.6	0.025	0074M2U	0074M1U
53808	3	RCBC	2.50	2.50	2.00	0.05	0	1.2	0.6	0.025	0074M02U	0074M2U
53810	3	RCBC	2.50	2.50	2.00	0.05	0	1.2	0.6	0.025	0074M02U	0074M2U
53811	1	RCP	2.55	2.50	98.65	0.05	0.9	0	0	0.025	0074M3U	0074M02U
53813	1	RCP	2.84	2.55	96.32	0.30	0.9	0	0	0.025	0074M04U	0074M3U
53815	1	RCP	2.87	2.84	2.08	1.44	0.9	0	0	0.025	0074M4U	0074M04U
56849	1	RCP	3.47	3.13	100.77	0.34	1.2	0	0	0.025	0152A5U	0152A2U
56893	1	RCP	4.01	3.76	57.97	0.14	1.05	0	0	0.025	0152A9U	0152A7U
56895	1	RCP	4.11	4.01	52.75	0.15	1.05	0	0	0.025	0152A10U	0152A9U
56901	1	RCP	4.30	4.11	7.83	0.26	0.9	0	0	0.025	0152A11U	0152A10U
56969	3	RCBC	4.88	3.64	30.77	4.06	0	0.9	0.9	0.025	0272A011U	0272A10U
57155	1	RCP	0.20	0.19	31.20	0.05	1.8	0	0	0.025	0270A03U	0270A2U
57454	3	RCBC	2.83	2.80	5.19	0.58	0	0.75	0.6	0.025	0282AA2U	0282AA02U
57663	1	RCP	3.59	3.57	49.63	0.04	0.9	0	0	0.025	0307B2U	0307B1D
57665	1	RCP	3.65	3.59	15.25	0.42	0.9	0	0	0.025	0307B3U	0307B2U
57667	1	RCP	3.89	3.65	78.98	0.29	0.9	0	0	0.025	0307B4U	0307B3U
57669	1	RCP	3.97	3.89	25.46	0.27	0.9	0	0	0.025	0307B5U	0307B4U
57693	1	RCP	3.54	3.45	47.57	0.19	0.9	0	0	0.025	0307E2U	0307E1D
57713	1	RCP	3.59	3.54	5.44	0.92	0.9	0	0	0.025	0307E3U	0307E2U
57886	1	RCP	1.27	1.11	13.52	0.22	0.9	0	0	0.025	0158F5U	0158F4U
57910	1	RCP	1.11	1.12	2.30	-0.39	1.2	0	0	0.025	0158F4U	0158F3U
58224	3	RCBC	5.94	5.47	38.25	1.22	0	1.5	1.5	0.025	0093N2U	0093A2U
58226	3	RCBC	6.15	5.94	17.65	1.22	0	1.5	1.5	0.025	0093N3U	0093N2U
58228	3	RCBC	6.47	6.15	25.20	1.23	0	1.5	1.5	0.025	0093N4U	0093N3U
58238	1	RCP	3.51	2.03	138.16	1.07	1.35	0	0	0.025	0134A06U	0134A4Ua
58240	1	RCP	3.51	2.56	39.72	2.40	1.35	0	0	0.025	0134A06U	0134A5U
58268	1	RCP	3.59	3.49	51.22	0.19	0.9	0	0	0.025	0237AK1U	0237A10U
58286	1	RCP	5.16	4.43	68.01	1.08	0.9	0	0	0.025	0305AA9U	0305AA8U
58292	1	RCP	8.49	8.45	21.84	0.16	1.65	0	0	0.025	0155A12U	0155A11U
58298	1	RCP	4.39	3.91	31.87	1.52	0.9	0	0	0.025	0237A13U	0237A013U
58326	1	RCP	0.23	0.15	115.97	0.07	1.35	0	0	0.025	0039A4U	0039A3U
58328	1	RCP	0.23	0.15	116.34	0.07	0.9	0	0	0.025	0039B4U	0039B3U
58340	3	RCBC	2.41	2.40	46.31	0.02	0	0.75	1.05	0.025	0282A5U	0282A4U
58342	1	RCP	3.35	3.32	13.91	0.21	0.9	0	0	0.025	0251A7U	0251M7U
58349	1	RCP	2.03	1.97	120.29	0.05	1.05	0	0	0.025	0020A11U	0020A6U
58352	1	RCP	1.97	1.76	47.26	0.44	1.05	0	0	0.025	0020A6U	0020A4U
58379	1	RCP	8.79	8.70	58.85	0.15	1.5	0	0	0.025	0155AK1U	0155A15U
58380	1	RCP	8.97	8.93	9.41	0.43	1.5	0	0	0.025	0155AP1U	0155A17U
58382	1	RCP	8.93	8.79	26.88	0.52	1.5	0	0	0.025	0155A17U	0155AK1U
58394	1	RCP	8.49	8.02	9.94	4.63	1.05	0	0	0.025	0227AT13U	0166A11U
61921	1	RCP	4.80	0.50	101.92	4.22	0.9	0	0	0.025	0026A4U	0026A2U
65762	1	RCP	2.85	2.74	22.13	0.24	0.9	0	0	0.025	0074CX1U	0074C22U
65763	1	RCP	3.05	2.85	64.69	0.29	0.9	0	0	0.025	0074CX2U	0074CX1U
65770	3	RCBC	3.40	3.05	49.99	0.24	0	1.2	0.6	0.025	0074CX3U	0074CX2U
65773	3	RCBC	3.44	3.40	13.04	0.28	0	0.6	0.6	0.025	0074CXB1U	0074CX3U
65777	3	RCBC	3.48	3.40	29.06	0.23	0	0.6	0.6	0.025	0074CX4U	0074CX3U
65778	3	RCBC	3.60	3.48	37.40	0.25	0	0.525	0.6	0.025	0074CX5U	0074CX4U
70971	1	RCP	3.73	3.72	17.19	0.06	1.2	0	0	0.025	0237AKB2U	0237AKB1U
74698	3	RCBC	4.89	4.76	83.76	0.16	0	2.7	1.8	0.025	0209D1U	0209B2U
74699	3	RCBC	4.99	4.89	29.33	0.34	0	2.7	1.8	0.025	0209D2U	0209D1U
74700	3	RCBC	5.01	4.99	85.85	0.02	0	2.7	1.8	0.025	0209D3U	0209D2U
74701	3	RCBC	5.03	5.01	25.65	0.08	0	2.7	1.8	0.025	0209D4U	0209D3U
82744_a	1	RCP	2.34	2.33	11.25	0.04	0.9			0.025	0050A5U	0050A4U
Link_106	1	RCP	11.24	11.20	5.14	0.90	0.9	0	0	0.025	0134A16U	0134A15U
74702	3	RCBC	5.05	5.03	19.62	0.10	0	2.7	1.8	0.025	0209D5U	0209D4U
74703	3	RCBC	5.07	5.05	35.53	0.06	0	2.7	1.8	0.025	0209D6U	0209D5U
74704	3	RCBC	5.08	5.07	26.57	0.04	0	2.7	1.8	0.025	0209D7U	0209D6U
74707	1	RCP	5.56	5.05	6.16	5.18	1.65	0	0	0.025	0209B6U	0209D5U
74747	3	RCBC	5.47	5.08	189.23	0.21	0	2.7	1.8	0.025	0209D8U	0209D7U
74750	3	RCBC	5.77	5.47	144.61	0.21	0	2.7	1.8	0.025	0209D9U	0209D8U
74752	1	RCP	5.95	5.77	8.90	11.88	1.35	0	0	0.025	0209B9U	0209D9U
74829	3	RCBC	4.76	4.37	170.30	0.23	0	3.6	1.8	0.025	0209B2U	0209B1D
74831	3	RCBC	5.11	4.76	6.58	3.95	0	3.6	1.8	0.025	0209B3U	0209B2U
76618	1	RCP	3.58	3.56	17.32	0.10	1.5	0	0	0.025	0301A05U	0301A4U
76623	1	RCP	3.59	3.58	12.56	0.10	1.5	0	0	0.025	0301A005U	0301A05U
79463	1	RCP	5.18	5.11	20.55	0.33	1.65	0	0	0.025	0209B4U	0209B3U
79464	1	RCP	5.18	5.11	20.55	0.33	1.65	0	0	0.025	0209B4U	0209B3U
79466	1	RCP	5.25	5.18	78.68	0.09	1.65	0	0	0.025	0209B5U	0209B4U
79467	1	RCP	5.25	5.18	78.68	0.09	1.65	0	0	0.025	0209B5U	0209B4U
85569	1	RCP	1.37	1.26	94.43	0.11	1.05	0	0	0.025	0251Q2U	0251K2U
Link_117	1	RCP	1.26	1.22	40.59	0.11	1.05	0	0	0.025	0251K2U	0251Q1D
79486	1	RCP	4.89	4.72	138.02	0.12	1.65	0	0	0.025	0209A2U	0209A1D
79539	1	RCP	5.56	5.25	148.22	0.21	1.5	0	0	0.025	0209B6U	0209B5U
79542	1	RCP	5.56	5.25	148.22	0.21	1.5	0	0	0.025	0209B6U	0209B5U
79544	1	RCP	5.86	5.56	24.91	1.04	0.9	0	0	0.025	0209BA1U	0209B6U
79548	1	RCP	5.93	5.86	1.48	2.70	0.9	0	0	0.025	0209BB1U	0209BA1U
79558	1	RCP	6.01	5.56	48.25	0.85	1.05	0	0	0.025	0209BB3U	0209B6U
79567	1	RCP	6.08	5.86	13.45	1.12	0.9	0	0	0.025	0209BA2U	0209BA1U
79717	1	RCP	5.95	5.81	144.51	0.10	1.5	0	0	0.025	0209B9U	0209B8U
79719	1	RCP	5.95	5.56	395.15	0.10	1.5	0	0	0.025	0209B9U	0209B6U
79728	1	RCP	6.85	5.95	25.14	1.35	0.9	0	0	0.025	0209BE1U	0209B9U
79769	1	RCP	6.41	6.10	16.92	1.83	1.2	0	0	0.025	0209B12U	0209B11U
79772	1	RCP	6.41	6.10	16.92	1.83	1.2	0	0	0.025	0209B12U	0209B11U
79774	1	RCP	6.52	6.41	14.83	0.75	1.2	0	0	0.025	0209BJ1U	0209B12U
79921	1	RCP	6.62	6.52	55.00	0.19	1.2	0	0	0.025	0209BJ3U	0209BJ1U
80036	1	RCP	6.41	6.12	31.87	0.90	1.2	0	0	0.025	0209BK2U	0209BK1U
144950_3	1	RCP	6.60	6.41	12.56	1.48	1.05			0.025	0209BL02U	0209BL1U
80049	1	RCP	6.10	7.09	98.73	-1.00	1.5	0	0	0.025	0209B11U	0209B10U
80050	1	RCP	6.44	6.41	2.90	1.07	1.2	0	0	0.025	0209B13U	0209B12U
80065	1	RCP	6.10	5.95	149.68	0.10	1.5	0	0	0.025	0209B11U	0209B9U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
80066	1	RCP	6.44	6.41	2.90	1.07	1.2	0	0	0.025	0209B13U	0209B12U
80070	1	RCP	6.60	6.44	87.36	0.18	1.2	0	0	0.025	0209B14U	0209B13U
80072	1	RCP	6.60	6.44	87.36	0.18	1.2	0	0	0.025	0209B14U	0209B13U
80091	1	RCP	6.87	8.01	90.70	-1.25	1.2	0	0	0.025	0209B17U	0209B016U
80098	1	RCP	6.87	6.69	157.43	0.12	1.2	0	0	0.025	0209B17U	0209B15U
80271	1	RCP	7.13	6.88	30.87	0.02	0.9	0	0	0.025	0209BQ1U	0209B18U
80295	1	RCP	7.09	6.94	116.97	0.13	1.2	0	0	0.025	0209B20U	0209B19U
80297	1	RCP	7.09	6.88	161.07	0.13	1.2	0	0	0.025	0209B20U	0209B18U
80305	1	RCP	7.24	7.09	18.90	0.81	1.2	0	0	0.025	0209B21U	0209B20U
80306	1	RCP	7.24	7.09	18.90	0.81	1.2	0	0	0.025	0209B21U	0209B20U
80323	1	RCP	8.00	7.14	31.03	2.38	1.05	0	0	0.025	0209BV1U	0209BV01U
80409	1	RCP	8.04	8.00	4.12	0.97	1.05	0	0	0.025	0209BV2U	0209BV1U
80419	1	RCP	7.39	7.26	103.99	0.13	1.05	0	0	0.025	0209B24U	0209B22U
80420	1	RCP	7.39	7.26	103.99	0.13	1.05	0	0	0.025	0209B24U	0209B22U
80911	1	RCP	7.50	7.41	56.74	0.17	1.05	0	0	0.025	0209B26U	0209B25U
80912	1	RCP	7.50	7.34	79.35	0.21	1.05	0	0	0.025	0209B26U	0209B025U
80920	1	RCP	7.61	7.60	7.70	0.16	1.05	0	0	0.025	0209B29U	0209B28U
80921	1	RCP	7.61	7.56	39.71	0.12	1.05	0	0	0.025	0209B29U	0209B029U
80938	1	RCP	7.78	7.61	132.21	0.12	1.05	0	0	0.025	0209B30U	0209B29U
80939	1	RCP	7.89	7.88	18.75	0.05	1.05	0	0	0.025	0209B32U	0209B032U
81528	1	RCP	3.89	3.59	20.02	1.50	0.9	0	0	0.025	0237AK2U	0237AK1U
Link_159	1	RCP					0.9			0.012		
81542	1	RCP	3.89	3.89	0.45	-0.88	0.9	0	0	0.025	0237AK03U	0237AK2U
81543	1	RCP	4.07	3.89	101.35	0.17	0.9	0	0	0.025	0237AK3U	0237AK03U
81683	3	RCBC	3.00	2.99	38.16	0.03	0	1.2	0.6	0.025	0125B3U	0125B2U
81684	3	RCBC	3.13	3.00	73.55	0.18	0	1.2	0.6	0.025	0125B5U	0125B3U
81685	3	RCBC	3.29	3.13	71.98	0.22	0	1.2	0.6	0.025	0125B6U	0125B5U
81686	3	RCBC	3.50	3.29	90.33	0.22	0	1.2	0.6	0.025	0125B7U	0125B6U
82540	1	RCP	-0.44	-0.46	73.79	0.03	1.05	0	0	0.025	0046A3U	0046A2U
82541	1	RCP	0.01	-0.44	105.30	0.43	0.9	0	0	0.025	0046A4U	0046A3U
82688	1	RCP	-0.46	-0.48	19.02	0.12	1.05	0	0	0.025	0046A2U	0046A1D
82737	1	RCP	2.33	2.26	206.92	0.04	0.9	0	0	0.025	0050A4U	0050A3U
82738	1	RCP	2.33	2.26	206.92	0.04	0.9	0	0	0.025	0050A4U	0050A3U
82742	1	RCP	2.42	2.47	33.91	-0.16	0.9	0	0	0.025	0050A8U	0050A007U
82744	1	RCP	2.34	2.33	11.25	0.04	0.9	0	0	0.025	0050A5U	0050A4U
82746	1	RCP	2.42	2.38	129.35	0.03	0.9	0	0	0.025	0050A8U	0050A07U
82747	1	RCP	2.51	2.42	251.34	0.04	0.9	0	0	0.025	0050A12U	0050A9U
82759	1	RCP	2.66	2.51	130.61	0.12	0.9	0	0	0.025	0050AJ1U	0050A12U
84737	1	RCP	0.44	0.42	6.40	0.31	1.5	0	0	0.025	0088A3U	0088A2U
84743	1	RCP	0.42	0.38	29.02	0.14	1.5	0	0	0.025	0088A2U	0088A1D_2
85117	1	RCP	2.21	1.99	128.81	0.17	0.75	0	0	0.025	0050B2U	0050B1D
85121	1	RCP	2.30	2.21	32.51	0.18	0.75	0	0	0.025	0050B3U	0050B2U
45620	3	RCBC	10.10	9.52	18.97	3.07	0	1.05	1.05	0.025	0123A13U	0123A11U
Link_103	3	RCBC	9.52	5.80	121.25	3.07	0	1.05	1.05	0.025	0123A11U	0123A10U
85584	1	RCP	1.52	1.47	42.62	0.11	1.05	0	0	0.025	0251Q5U	0251Q4U
85588	1	RCP	1.67	1.52	132.93	0.11	1.05	0	0	0.025	0251Q6U	0251Q5U
85608	1	RCP	1.47	1.37	96.10	0.11	1.05	0	0	0.025	0251Q4U	0251Q2U
85617	3	RCBC	1.73	2.41	15.98	-4.22	0	0.9	0.6	0.025	0251Q9U	0282A7U
85639	1	RCP	2.49	2.37	63.23	0.19	1.2	0	0	0.025	0282AA01U	0282A3U
85641	3	RCBC	2.37	2.31	34.50	0.19	0	0.75	1.05	0.025	0282A3U	0282A02U
86108	1	RCP	2.28	2.17	5.35	2.06	0.9	0	0	0.025	0078A004U	0078A04U
86113	1	RCP	2.17	1.34	40.20	2.06	0.9	0	0	0.025	0078A04U	0078A3U
86171	1	RCP	4.82	4.66	13.00	1.23	1.05	0	0	0.025	0355D2U	0355D1D
86174	1	RCP	5.00	4.82	11.67	1.56	1.05	0	0	0.025	0355D3U	0355D2U
86176	1	RCP	5.25	5.00	76.24	0.30	1.05	0	0	0.025	0355D4U	0355D3U
86180	1	RCP	5.48	5.25	34.63	0.32	1.05	0	0	0.025	0355D5U	0355D4U
86187	1	RCP	1.26	0.78	60.87	0.79	0.9	0	0	0.025	0115J9U	0115J8U
86188	1	RCP	1.26	0.78	60.87	0.79	0.9	0	0	0.025	0115J9U	0115J8U
Link_119	3	RCBC	2.41	2.41	37.43	0.00	0	0.75	1.05	0.025	0282A7U	0282A6U
85616	3	RCBC	2.41	2.41	70.67	0.00	0	0.75	1.05	0.025	0282A6U	0282A5U
86214	1	RCP	0.78	0.62	18.13	0.89	1.2	0	0	0.025	0115J8U	0115J7U
86215	1	RCP	0.78	0.62	18.13	0.89	1.2	0	0	0.025	0115J8U	0115J7U
86258	1	RCP	0.62	0.59	9.01	0.29	1.2	0	0	0.025	0115J7U	0115J5U
86259	1	RCP	0.62	0.59	9.01	0.29	1.2	0	0	0.025	0115J7U	0115J5U
86261	1	RCP	0.59	0.53	7.35	0.87	1.2	0	0	0.025	0115J5U	0115J4U
86262	1	RCP	0.59	0.53	7.35	0.87	1.2	0	0	0.025	0115J5U	0115J4U
86265	1	RCP	0.53	0.49	7.21	0.61	1.2	0	0	0.025	0115J4U	0115J3U
86266	1	RCP	0.53	0.49	7.21	0.61	1.2	0	0	0.025	0115J4U	0115J3U
86269	1	RCP	0.49	0.65	6.52	-2.56	1.2	0	0	0.025	0115J3U	0115H2U
86270	1	RCP	0.49	0.65	6.52	-2.56	1.2	0	0	0.025	0115J3U	0115H2U
86274	1	RCP	0.66	0.65	21.67	0.03	1.2	0	0	0.025	0115H3U	0115H2U
86277	1	RCP	0.66	0.65	21.67	0.03	1.2	0	0	0.025	0115H3U	0115H2U
86279	1	RCP	0.98	0.66	7.51	4.26	1.2	0	0	0.025	0115H4U	0115H3U
86281	1	RCP	0.98	0.66	7.51	4.26	1.2	0	0	0.025	0115H4U	0115H3U
86283	1	RCP	1.34	0.98	9.33	3.87	1.2	0	0	0.025	0115H6U	0115H4U
86285	1	RCP	1.34	0.98	9.33	3.87	1.2	0	0	0.025	0115H6U	0115H4U
86300	3	RCBC	0.65	0.57	18.95	0.44	0	2.4	0.75	0.025	0115H2U	0115H1D
86310	1	RCP	0.49	0.41	8.06	0.89	1.05	0	0	0.025	0115J3U	Node_Flinders
86312	1	RCP	0.49	0.41	8.06	0.89	1.05	0	0	0.025	0115J3U	Node_Flinders
86314	1	RCP	0.41	0.31	11.63	0.89	1.05	0	0	0.025	Node_Flinders	0115J1D
86315	1	RCP	0.41	0.31	11.63	0.89	1.05	0	0	0.025	Node_Flinders	0115J1Da
86316	1	RCP	1.49	1.34	23.71	0.64	1.05	0	0	0.025	0115HB1U	0115H6U
86317	1	RCP	1.49	1.34	23.71	0.64	1.05	0	0	0.025	0115HB1U	0115H6U
86321	1	RCP	1.61	1.49	10.37	1.12	1.05	0	0	0.025	0115HB2U	0115HB1U
86322	1	RCP	1.61	1.49	10.37	1.12	1.05	0	0	0.025	0115HB2U	0115HB1U
86358	1	RCP	0.30	0.18	21.24	0.61	0.9	0	0	0.025	0115G2U	0115G1D
86359	1	RCP	0.30	0.18	21.28	0.61	0.9	0	0	0.025	0115G2U	0115G1Da
86841	1	RCP	0.47	0.38	9.92	0.96	0.9	0	0	0.025	0158C02U	0158C1D
86842	1	RCP	0.47	0.46	19.19	0.05	0.9	0	0	0.025	0158C02U	0158D1D
34411_2	3	RCBC	3.25	3.18	19.74	0.35		2.1	1.35	0.025	0237A9U	0237A8U
Link_72	3	RCBC	1.15	1.10	3.70	1.54		1.2	1.2	0.025	0123A4U	0123A3U
Link_73	1	RCP	3.98	3.97	1.24	0.31	0.6			0.025	0251DC1U	0251D8U
45196_2	1	RCP	2.33	2.29	18.51	0.19	1.2			0.025	0222A11U	0222A8U
45229_2	1	RCP	2.12	2.10	12.50	0.14	1.2			0.025	0222A5U	0222A4U
45229_3	1	RCP	2.10	2.03	48.90	0.14	1.2			0.025	0222A4U	0222A3U
45766_2	1	RCP	9.80	9.78	11.62	0.17	0.9			0.025	0165B8U	0165B7U
32997_2	3	RCBC	3.02	1.91	16.09	6.90		3	0.9	0.025	0165A4U	0165A3U
32997_3	3	RCBC	1.91	0.62	11.32	11.43		3	0.9	0.025	0165A3U	0165A2U
82744_b	1	RCP	2.34	2.33	11.25	0.04	0.9			0.025	0050A5U	0050A4U
Link_82	1	RCP	2.42	2.42	19.81	0.04	0.9			0.025	0050A9U	0050A8U
Link_83	1	RCP	2.42	2.42	19.81	0.04	0.9			0.025	0050A9U	0050A8U
Link_84	1	RCP	2.38	2.34	102.18	0.04	0.9			0.025	0050A07U	0050A5U
Link_85	1	RCP	2.38	2.34	102.18	0.04	0.9			0.025	0050A07U	0050A5U

Link ID	TypeNo	Conduit Type	Upstream Level (m AHD)	Downstream Level (m AHD)	Length (m)	Slope (m)	Diameter (m)	Width (m)	Height (m)	Manning's n	From Node	To Node
Link_86	1	RCP	2.38	2.34	102.18	0.04	0.9			0.025	0050A07U	0050A5U
Link_87	1	RCP	1.81	1.65	103.52	0.15	1.05			0.025	0074C10U	0074C6U
Link_88	1	RCP	5.57	5.55	7.07	0.26	1.2			0.025	0227A3U	0227A2U
Link_89	1	RCP	5.57	5.55	7.07	0.26	1.2			0.025	0227A3U	0227A2U
Link_90	1	RCP	6.08	5.86	82.18	0.26	1.2			0.025	0227A6U	0227A5U
Link_91	1	RCP	5.86	5.69	65.16	0.26	1.2			0.025	0227A5U	0227A4U
Link_92	1	RCP	6.08	5.86	82.18	0.26	1.2			0.025	0227A6U	0227A5U
Link_93	1	RCP	5.86	5.69	65.16	0.26	1.2			0.025	0227A5U	0227A4U
Link_94	1	RCP	20.65	20.49	2.30	6.96	0.9			0.025	0138A22U	0138A21U
Link_95	3	RCBC	7.08	6.86	107.67	0.20		1.5	1.5	0.025	0209BKB7U	0209BKB6U
Link_96	3	RCBC	6.86	6.84	12.27	0.20		1.5	1.5	0.025	0209BKB6U	0209BKB5U
Link_97	3	RCBC	6.55	6.29	121.02	0.22		1.5	1.5	0.025	0209BKB4U	0209BKB2U
Link_98	1	RCP	6.12	6.41	4.91	-5.87	1.2			0.025	0209BK1U	0209B12U
Link_99	3	RCBC	6.09	6.03	27.14	0.21		1.5	1.5	0.025	0209BKA1U	0209BKA2U
35824	1	RCP	6.55	6.15	16.87	2.35	0.75	0	0	0.025	0206A8U	0206A7U
Link_110	1	RCP	6.15	2.21	167.65	2.33	0.75	0	0	0.025	0206A7U	0206A6U
45630	3	RCBC	14.32	10.10	102.28	4.13	0	1.05	1.05	0.025	0123A14U	0123A13U
Link_105	1	RCP	4.15	4.04	44.99	0.25	1.05	0	0	0.025	0127A4U	0127A3U
36305	1	RCP	11.20	10.59	66.94	0.90	0.9	0	0	0.025	0134A15U	0134A13U
Link_108	1	RCP	3.74	3.04	36.04	1.95	0.6			0.025	0140A16U	0140A14U
56855	1	RCP	3.76	3.73	8.94	0.32	1.2	0	0	0.025	0152A7U	0152A6U
Link_109	1	RCP	3.73	3.47	82.01	0.28	1.2	0	0	0.025	0152A6U	0152A5U
174786	1	RCP	8.47	8.44	16.58	0.16	1.2	0	0	0.025	0209B40U	0209B39U
Link_111	1	RCP	8.44	8.28	98.78	0.16	1.2	0	0	0.025	0209B39U	0209B38U
36091	1	RCP	9.07	9.03	22.03	0.16	1.05	0	0	0.025	0209B48U	0209B47U
Link_113	1	RCP	6.22	6.10	38.03	0.31	1.05	0	0	0.025	0209BG01U	0209B11U
Link_114	1	RCP	6.41	6.12	19.64	1.48	1.05			0.025	0209BL1U	0209BKB1U
Link_116	3	RCBC	6.03	5.88	72.64	0.21	0	2.7	1.8	0.025	0209BKA2U	0209D10U
74756	3	RCBC	5.88	5.77	50.68	0.21	0	2.7	1.8	0.025	0209D10U	0209D9U
85609	1	RCP	1.73	1.72	12.51	0.11	1.05	0	0	0.025	0251Q9U	0251Q7U
Link_118	1	RCP	1.72	1.67	47.14	0.11	1.05	0	0	0.025	0251Q7U	0251Q6U
Link_122	1	RCP					1.2			0.012		
Link_123	1	RCP					1.2			0.012		
Link_124	1	RCP					1.2			0.012		
Link_125	1	RCP					1.2			0.012		
Link_126	1	RCP					1.2			0.012		
Link_127	1	RCP					1.2			0.012		
Link_128	1	RCP					1.2			0.012		
Link_129	1	RCP					1.2			0.012		
Link_130	1	RCP					1.2			0.012		
Link_131	3	RCBC						3	1.2	0.012		
Link_132	3	RCBC						3	1.2	0.012		
Link_133	3	RCBC						3	1.2	0.012		
Link_134	1	RCP					1.2			0.012		
Link_135	1	RCP					1.2			0.012		
Link_136	1	RCP					1.2			0.012		
Link_137	1	RCP					1.2			0.012		
Link_138	1	RCP					1.2			0.012		
Link_139	1	RCP					1.2			0.012		
Link_140	1	RCP					1.2			0.012		
Link_141	1	RCP					1.2			0.012		
Link_142	1	RCP					1.2			0.012		
Link_143	3	RCBC	1.96	1.13	7.59	10.84		1.2	0.9	0.012		
Link_144	3	RCBC	3.05	1.96	9.23	5.96		0.9	0.9	0.012		
Link_147	1	RCP					0.375			0.012		
Link_160	1	RCP					0.9			0.012		
Link_161	1	RCP					0.9			0.012		
Link_162	1	RCP					0.9			0.012		
Link_163	1	RCP					0.9			0.012		
Link_164	1	RCP					0.9			0.012		
Link_165	1	RCP					0.9			0.012		
Link_166	1	RCP					0.9			0.012		
Link_167	1	RCP					0.9			0.012		
Link_168	1	RCP					0.9			0.012		
Link_169	3	RCBC						1.2	0.45	0.012		
Link_170	3	RCBC						1.2	0.45	0.012		
Link_171	3	RCBC						1.2	0.45	0.012		
Link_172	3	RCBC						1.2	0.45	0.012		
Link_173	1	RCP	0.24	0.24	150.58	0.00	0.75			0.012		
Link_175	1	RCP	0.24	0.24	186.83	0.00	0.75			0.012		
Link_176	1	RCP	0.24	2.70	205.73	-1.20	0.75			0.012		
Link_174	1	RCP	2.70	2.70	40.26	0.00	0.75			0.012		
Link_177	1	RCP					0.675			0.012		
Link_178	1	RCP					0.675			0.012		
Link_179	1	RCP					0.6			0.012		
Link_181	1	RCP					0.5			0.012		
Link_182	1	RCP	1.00	-4.42	4.28	2.34	0.45			0.012		
Link_185	1	RCP	-0.40	-3.40	6.52	1.53	1.2			0.012		
Link_187	1	RCP	2.85	2.20	145.07	0.45	0.6			0.012		
Link_189	1	RCP	2.85	2.20	145.10	0.45	0.6			0.012		
Link_186	1	RCP	0.47	2.85	2.55	-11.93	0.6			0.012		
Link_191	1	RCP	0.47	2.85	2.55	-11.75	0.6			0.012		

Appendix D – Flood Maps

(Refer to Volume 2)

Appendix E – Long Sections

(Refer to Volume 2)

Appendix F – Peak Surface Flow Results

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
1	1h	0.1	0.2	0.8	2.3	4.7	7.1	9.8	13.7	
	1.5h	0.1	0.7	1.9	4	7.2	10	12.9	17.1	
	2h	0.1	1.1	2.7	5	8.4	11.2	14.3	18.4	86
	3h	0.1	1.7	3.4	5.8	8.9	11.5	14.2	18	
	6h	0.1	1.8	3.5	5.7	8	10.3	12.7	15.9	
	12h	0.1	1.8	3.8	6.4	8.3	10.9	13.5	16.9	
	18h	0.1	0.5	1.1	2.1	3.7	5.3	6.9	9.1	
	24h	0.1	2.1	4	6.7	8.6	11.4	14.5	18.7	97.3
	72h	0.1	0.5	1.3	3	4.3	6.2	8.3	11.3	23.8
2	1h	3.8	6.7	8.3	10.5	13.3	15.8	18.5	22.4	
	1.5h	4.6	7.1	8.5	10.5	13	15.2	17.6	21.2	
	2h	4.3	7	8.5	10.4	12.5	14.8	17.3	20.7	57.1
	3h	4.3	6.6	8.1	10	11.5	13.7	16	19.2	
	6h	3.5	5.6	6.8	8.4	9.4	11.1	13.1	15.7	
	12h	3.9	5.5	6.4	8	8.9	10.4	12.3	14.8	
	18h	3.3	4.2	4.9	6.1	6.9	8.1	9.4	11.5	
	24h	4.1	5.9	6.9	8.4	9.3	11	12.7	15.3	53.3
	72h	2.5	3.3	4	4.7	5.2	6.1	7.1	8.4	11.3
3	1h	0	1	2.1	3.6	5.5	7.1	8.6	11.4	
	1.5h	0.2	1.9	3.2	4.7	6.7	8.8	11.2	14.5	
	2h	0.4	2.4	3.6	5.1	7.8	10.2	12.9	16.5	72.9
	3h	0.5	2.6	3.8	5.6	8.6	11.1	13.9	17.5	
	6h	0.5	2.4	3.7	5.8	8.5	10.8	13.4	16.6	
	12h	0.5	2.7	3.8	5.7	7.6	10.1	12.7	16.3	
	18h	0	1	1.7	2.7	4	5.5	7.1	9.4	
	24h	0.6	2.8	4.2	6.6	8.6	11.2	14	17.9	93.9
	72h	0	1.3	2.1	3.6	4.8	6.9	9.3	12.5	25.6
4	1h	0	0	0.1	1.8	4.6	6.7	9.2	13.2	
	1.5h	0	0.1	1.5	3.9	7	9.7	13	17.5	
	2h	0	0.3	2.5	5	8.4	11.2	14.4	18.4	75
	3h	0	1.3	3.3	5.6	8.5	11.1	13.9	17.8	
	6h	0	1.2	3	4.9	7.1	9.3	11.6	14.8	
	12h	0.008	1.1	3.1	5.5	7.2	9.4	11.8	15.1	
	18h	0.004	0	0	1.5	3.6	5.1	6.7	9.2	
	24h	0.01	1.7	3.8	6.3	8.1	10.9	13.9	17.9	92.8
	72h	0	0	0.2	2.5	3.6	5.4	7.4	10.5	58
5	1h	0	0	0.1	0.7	2.5	4.1	5.7	8.3	
	1.5h	0	0.1	0.6	2.1	4.3	6	8	10.9	
	2h	0	0.2	1.2	2.9	5.1	6.8	8.8	11.5	61.2
	3h	0	0.6	1.7	3.3	5.1	6.7	8.5	11	
	6h	0	0.5	1.5	2.8	4.2	5.5	6.9	8.9	
	12h	0	0.5	1.6	3.2	4.3	5.7	7.1	9.1	
	18h	0	0	0.2	0.7	1.8	2.9	4	5.5	
	24h	0	0.8	2	3.8	4.9	6.6	8.4	11	75.5
	72h	0	0	0.2	1.2	1.9	3.1	4.4	6.3	48
6	1h	6.3	10.7	13.1	16.4	21.1	25	29.3	36.1	
	1.5h	8.5	13.6	16.4	20.4	26.4	31.5	37.1	45.6	
	2h	10.1	15.6	18.9	23.4	30.6	36.2	42.9	52.1	215
	3h	12.3	18	21.4	27.2	34.8	41.1	47.9	57.2	
	6h	13.8	19.3	23.1	28.8	35.2	41.1	47.5	56.4	
	12h	12.6	18.2	21.8	27.8	32.6	38.6	45	53.8	
	18h	12.1	16.1	17.9	20.5	25.4	29.4	33.8	40	
	24h	13.7	19.9	24.2	30.6	35.5	42	49	59	279.1
	72h	12	16.1	18.4	23.1	26.7	32.1	38	46.7	141.1
7	1h	0	0	0	0	0	0	0	0.4	
	1.5h	0	0	0	0	0	0	0.4	1.1	
	2h	0	0	0	0	0	0.2	0.8	1.9	50
	3h	0	0	0	0	0.1	0.7	1.8	3.9	
	6h	0	0	0	0	0.7	1.8	3.2	5	
	12h	0	0	0	0	0.6	1.5	2.4	3.5	
	18h	0	0	0	0	0.6	2	3	4.6	
	24h	0	0	0	0	0.7	1.8	3.2	5.4	52.1
	72h	0	0	0	0.2	1.2	2.3	3.4	5	51.2
8	1h	0	0	0.1	0.2	0.5	0.6	1	2.5	
	1.5h	0	0.1	0.1	0.3	0.4	0.5	1	2.3	
	2h	0	0.1	0.1	0.2	0.3	0.4	0.8	2.1	110.6
	3h	0	0	0	0.1	0.2	0.3	0.6	1.4	
	6h	0	0	0	0	0.1	0.1	0.3	0.6	
	12h	0	0	0	0	0.1	0.1	0.2	0.5	
	18h	0	0	0	0	0	0	0.1	0.1	
	24h	0	0	0	0	0	0.1	0.2	0.5	45.8
	72h	0	0	0	0	0	0	0	1.3	48.5

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
9	1h	0.3	0.4	0.3	0.2	0.3	0.4	0.6	0.8	
	1.5h	0.1	0.2	0.3	0.4	0.4	0.4	0.5	0.6	
	2h	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	579.4
	3h	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.5	
	6h	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	
	12h	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	
	18h	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	
	24h	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.7	590.3
	72h	0.1	0.1	0.1	0.2	0.2	0.2	9.1	38.3	579.2
10	1h	6.3	10.8	13.2	16.2	21.3	25	29.7	36.3	
	1.5h	8.6	13.7	16.3	20.3	26.9	31.6	37.1	45.2	
	2h	10.3	16	18.8	24.3	30.5	36.4	42.5	51.6	163.4
	3h	12.5	18.2	21.8	27.3	34.6	40.8	47.7	56.9	
	6h	14	19.5	23.3	28.8	35.2	41.2	47.6	56.4	
	12h	12.5	18.5	21.7	27.5	32.4	38.3	44.6	53.4	
	18h	12.2	16.2	18.1	20.7	25.5	29.4	33.7	39.9	
	24h	13.8	20	24.3	30.5	35.5	42	49	59	216.3
	72h	12.6	16.3	18.6	23.2	26.8	32.2	38.1	46.9	112.6
11	1h	6.3	10.9	13.8	16.9	21.8	25.6	30.6	37	
	1.5h	8.8	14.2	16.9	21.1	27.9	32.8	38.8	47.3	
	2h	10.5	16.5	19.8	24.7	32.6	38.3	44.9	53	225.6
	3h	14	20.9	25	30.1	37.4	43.5	50.2	58.9	
	6h	19	24.1	27.7	31.7	38	44.3	51.2	59.4	
	12h	17.9	24.1	26.7	31.8	34.9	40.9	47.6	56.5	
	18h	17	21.5	23.3	25.9	29.8	32.7	38.2	45.7	
	24h	18.9	24.6	28.2	33	38.2	45.1	52.4	61.6	333.8
	72h	17.8	21.4	23.8	27.4	30.2	35.1	41.5	51.2	149.1
12	1h	0.9	1.4	1.7	2	2.4	3	3.7	4.5	
	1.5h	1	1.5	1.8	2.2	3.2	3.9	4.5	5.4	
	2h	1.1	1.5	1.8	2.6	3.6	4.4	5	7.3	102.7
	3h	1.1	1.6	2.3	3.1	4.2	4.9	6.4	10.9	
	6h	1	2.1	2.7	3.5	4.5	5.4	7.6	11.8	
	12h	1.4	1.9	2.5	3.3	4	4.8	5.7	9.9	
	18h	1.7	2.3	2.7	3.1	3.8	4.4	5.1	6.9	
	24h	1.3	2.1	2.8	3.7	4.4	5.5	8	13	166.1
	72h	1.8	2.4	2.8	3.3	3.9	4.7	5.6	8	66.1
13	1h	6.4	11.1	13.9	17.3	22.6	27.1	32	39.7	
	1.5h	9.1	14.5	17.4	22.2	29.2	35.1	41.5	50.8	
	2h	10.9	17	20.7	26.2	34.5	41.6	48.7	58.9	324.8
	3h	14.1	21.1	25.6	32.4	41.4	48.4	55.9	68.8	
	6h	20	27	31.2	36.2	44	51	60.1	72.6	
	12h	19.4	26.9	30.1	34.7	38.9	45.7	52.9	64.9	
	18h	18.6	24.1	26.6	29.9	35.3	39	45.3	54.6	
	24h	19.9	27.1	31.7	37.9	44	51.7	61.6	75.6	498
	72h	20.4	25.2	28.3	32.4	36.3	41.1	48.2	60.6	220.4
14	1h	1.8	1.8	2.5	7.8	16.9	24.1	30.1	38.7	
	1.5h	1.8	2.6	8.4	16.1	26.5	33.7	41	51.2	
	2h	2.5	6.9	13.5	21.9	33.1	40.9	49.2	61	342.2
	3h	2.2	13.7	21.5	30.6	41.5	50	59.8	74.4	
	6h	11.5	24.7	30.6	36.7	47.2	57	67.8	83.4	
	12h	12.7	25.3	30.4	36.6	43.1	50.9	60	71.3	
	18h	13.1	22.3	27	32	40.2	46.3	54	65.3	
	24h	11.3	24.9	31.2	38.8	46.9	57.5	69.4	86.5	431
	72h	16.5	25.1	30	35.7	41.2	48.2	57.1	69.7	240
15	1h	6.6	11.7	15.2	20.6	27.1	31.6	36.4	42.4	
	1.5h	9.7	16.4	21	26.7	34.3	39.1	43.8	52.2	
	2h	11.7	20	24.7	31.1	38.7	43.7	50.8	62.1	273.9
	3h	16.1	25.7	30.9	36.5	44.5	51.6	61.3	75.5	
	6h	23.4	31.6	35.7	39.7	49.1	58.8	69.6	85.1	
	12h	23.1	31.5	34.9	39.2	45.3	52.9	62.1	73.6	
	18h	21.9	28.2	31.3	35.2	42.3	48.5	56.1	67.3	
	24h	22.8	31.7	35.9	41.3	48.8	59.3	71.1	88.2	316.5
	72h	24.1	30.2	33.8	38.4	43.6	50.4	59.3	72	214.3
16	1h	6.5	11.6	15.3	20.9	25.9	32.1	37.5	42.5	
	1.5h	10.2	16.7	20.6	25.6	34.9	39.8	44	48.9	
	2h	11.8	20.6	24.7	31.5	39.5	44	47.5	57.9	195.6
	3h	16.4	27.1	32.9	37.6	44.5	49.4	58.1	66.5	
	6h	26.2	34.5	39	43.5	52.1	58.5	64.6	68.3	
	12h	24.9	34.2	37.3	41.7	47.5	55.1	59	63.5	
	18h	26.3	32.3	37.1	41.1	46.6	52.9	59	63.7	
	24h	23.5	33.7	37.9	43.1	49.5	57.2	63.7	69.3	145.5
	72h	27.8	34.3	38.4	42.9	47.8	54.3	58.7	72.4	155.1

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
17	1h	4.3	3.9	5.8	6.1	7.1	8.9	9.4	9.8	
	1.5h	4.4	7.2	6.2	6.8	7.6	8.3	9.8	9.8	
	2h	3.9	7.1	6.2	7	7.7	9.2	9.2	9	76.6
	3h	4.8	6.8	7.2	6.7	7.9	7.7	7.8	7.9	
	6h	6.6	6.5	6.6	7.1	6.6	7	8.9	19.5	
	12h	6	6.8	6.7	7.2	6.6	7.7	11.4	22.6	
	18h	5.8	6.6	5.5	6	6.7	7.3	9.3	18.6	
	24h	6	6.3	7	7.6	7.9	8.3	8.4	23.3	98.3
	72h	6.6	6	5.6	6.1	5.8	7	11.5	27.4	82.2
18	1h	8.2	14.4	18.3	26.1	35.9	42.3	61.9	71.6	
	1.5h	12.1	16.6	26.3	34.7	41.1	65.3	77.3	85.5	
	2h	14.3	26.1	30.8	35.6	34.8	40.8	93.4	117.8	439.8
	3h	13.6	35.6	35	60.8	78.7	96.6	110.3	145.4	
	6h	36	46.9	60.6	77.1	92.5	115.2	125.6	180.7	
	12h	39.8	59.1	69.6	88.1	97.1	139.8	149.4	185.4	
	18h	45	61.9	73.4	77.7	87.5	100.5	138.4	174.7	
	24h	43.1	49.9	62.4	67.1	72.8	94.2	105.9	107.1	569.3
	72h	55.4	75.3	82.9	96.5	110.2	133.7	141.9	192.4	430.6
19	1h	8.4	14.8	18.8	26.9	37	53.4	62.9	72.5	
	1.5h	12.4	21.1	26.9	35.3	56.3	66.7	78.1	97.8	
	2h	14.6	26.9	31.3	41.3	67.6	78.7	92.2	118.2	440.4
	3h	13.5	37.5	38.4	62.2	84.5	99.3	121.1	145.7	
	6h	36.3	50.2	64.8	89.9	109.2	125.6	155.3	183.3	
	12h	47.8	62.2	75.7	95.4	118.7	141.5	155.5	190.1	
	18h	47.5	66	78.4	93.3	111.2	131.6	143.3	176.7	
	24h	46.3	54.5	64.4	94.9	107.4	132.9	157.2	188.9	758
	72h	57.3	75.9	85.7	101	114.5	133.7	149.5	199.6	480.1
20	1h	8.8	15.1	19.7	26.9	36.8	55.5	63.4	73.7	
	1.5h	12.3	17.1	27.9	36	57.4	69.1	79.7	98.8	
	2h	15	27.5	31.9	37.6	66.9	78.9	92.7	116.3	446.2
	3h	13.9	37.6	38.5	63.3	82.6	98.3	121	148.3	
	6h	37.9	49.6	65.4	80.4	111.4	133.1	157.8	183.3	
	12h	48.1	64.8	79.3	95.9	119.6	140.6	157.7	193.2	
	18h	49.1	68.2	81.2	95.2	110.2	131.4	149.3	179	
	24h	49.2	57.9	67.4	93.4	106.2	132.7	158.4	191.1	979.6
	72h	59	79.8	88.4	102.3	116.4	135.9	151.7	199.6	566.9
21	1h	0.3	0.6	0.9	1.2	4.6	7.5	10.4	14	
	1.5h	0.5	0.8	1	3.9	8.2	11.3	14.4	18.3	
	2h	0.5	0.9	2.4	6	10.5	13.7	16.8	20.6	72.3
	3h	0.5	1.5	4.5	8	11.9	14.7	17.5	21.2	
	6h	0.5	2.5	5	8.2	11.4	14	16.5	19.8	
	12h	0.6	1.6	4.2	8	10.6	13.6	16.3	19.8	
	18h	0.4	0.6	1.8	3.5	6.3	8.6	10.6	13.3	
	24h	0.6	2.8	5.7	9.2	11.5	14.4	17.3	21.3	90.4
	72h	0.3	0.9	2.3	4.9	6.8	9.6	12.3	15.9	25.9
22	1h	2.8	5	6.8	9.4	13.1	16	19	23.3	
	1.5h	3.7	6.5	8.7	11.6	16	19.2	21.2	25.7	
	2h	4	7.2	9.4	12.5	16.2	19.1	22.2	26.2	124
	3h	4.3	7.6	9.6	12.6	15.9	17.8	21.1	25	
	6h	4.3	6.8	8.3	10.3	14.1	18.4	22.7	28.3	
	12h	4.5	7.4	8.8	10.7	15	18.6	21.9	26	
	18h	3.1	5.2	6.8	8.9	12.1	15.2	18.4	22.7	
	24h	4.5	7.7	9.9	12.6	14.7	18.6	23.2	29.2	188.1
	72h	2.9	4.7	5.9	8.2	10.8	14.4	18.2	23.3	47.9
23	1h	1.6	3	4.2	5.7	8	10	12.1	15	
	1.5h	2.2	4.3	5.8	7.8	10.8	13	15.6	19.3	
	2h	2.8	5.4	7	9.3	12.4	14.8	17.3	20.9	70.5
	3h	3.7	6.3	7.9	10.1	12.8	15.2	17.6	21.1	
	6h	4	6.3	7.6	9.6	12.2	15.7	19.1	23.3	
	12h	3.7	6.6	8	10.2	12.4	15.1	17.6	20.4	
	18h	2.5	4	5	6.4	9	11.4	13.7	16.9	
	24h	4	6.6	8.2	10.6	12.2	15.9	19.5	24	79.5
	72h	2.2	4.2	5.5	7	8.7	11.6	14.5	19.2	33
24	1h	0.4	1.5	2.3	3.5	5.2	6.6	8	10.1	
	1.5h	0.8	2.4	3.4	4.9	6.9	8.6	10.3	12.6	
	2h	1.3	3.1	4.2	5.7	7.8	9.4	11.1	13.3	48.4
	3h	1.8	3.6	4.6	6.1	7.9	9.5	11.1	13.1	
	6h	1.9	3.4	4.3	5.6	8.1	10.5	12.7	15.2	
	12h	1.8	3.6	4.6	6	7.9	9.7	11.3	13.1	
	18h	0.9	1.9	2.6	3.6	5.5	7.1	8.7	10.8	
	24h	1.9	3.7	4.9	6.4	8	10.6	12.9	15.7	65.4
	72h	0.7	2	2.8	3.9	5.4	7.4	9.5	12.7	21.1

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
25	1h	0.5	1.6	2.3	3.3	4.7	5.9	7.2	8.7	
	1.5h	1	2.3	3.2	4.4	6	7.3	8.5	9.9	
	2h	1.4	2.8	3.7	4.9	6.4	7.7	8.8	10.3	27.6
	3h	1.7	3	3.8	5	6.4	7.6	8.8	10.7	
	6h	1.6	2.7	3.5	4.5	7.1	8.9	10.4	11.9	
	12h	1.6	2.9	3.6	4.8	6.7	8.1	9.1	10.5	
	18h	1	1.8	2.3	3.1	4.7	6	7.3	8.8	
	24h	1.7	3.1	4	5.3	7.1	9	10.6	12.2	38.2
	72h	0.8	1.7	2.3	3.3	4.8	6.4	8.2	10.4	15.1
26	1h	1.3	2.1	2.5	3.3	4.6	5.7	6.8	8.5	
	1.5h	1.6	2.4	3	3.9	5.2	6.3	7.6	9.5	
	2h	1.7	2.5	3.1	4.1	5.4	6.6	8	9.9	68.7
	3h	1.8	2.5	3.1	4	5.4	6.6	8.2	11.6	
	6h	1.6	2.2	2.8	4	6.3	8.3	10.4	13.3	
	12h	1.7	2.3	2.9	4.2	5.8	7	8.3	10.6	
	18h	1.3	1.8	2.1	2.8	4.2	5.3	6.4	8.1	
	24h	1.8	2.6	3.2	4.5	6.3	8.4	10.7	14.1	103.3
	72h	1.2	1.6	1.9	3	4.2	5.6	7.4	10.3	21.7
27	1h	1.1	2.2	2.7	3.4	4.5	5.3	6.1	7.4	
	1.5h	1.5	2.4	3	3.8	4.8	5.6	6.5	7.8	
	2h	1.5	2.5	3	3.8	4.8	5.6	6.5	7.5	20.2
	3h	1.5	2.4	3	3.8	4.6	5.3	6.2	7.2	
	6h	1.3	2	2.5	3.2	3.7	4.5	5.2	6.1	
	12h	1.5	2.2	2.6	3.3	3.9	4.5	5.2	6.1	
	18h	1.2	1.7	2	2.5	3	3.5	4	4.9	
	24h	1.6	2.4	3.1	4	4.4	5.2	6	7	26.2
	72h	0.8	1.3	1.7	2.2	2.6	3.2	3.8	4.6	6.5
28	1h	1.2	2.2	2.9	3.9	5.3	6.5	7.9	11.2	
	1.5h	1.4	2.5	3.3	4.4	6.5	8.8	11.8	16	
	2h	1.5	2.6	3.7	5.3	8.2	11.4	14.9	19.7	89.8
	3h	1.5	3.4	4.5	6.8	11.2	15	18.7	23.2	
	6h	2.1	3.8	5.8	9	12.6	15.6	18.7	23	
	12h	1.8	3.7	5.2	7.5	10.1	13.2	16.6	21.5	
	18h	1.9	3	3.8	5	7.2	9.4	11.6	14.8	
	24h	2	3.8	6.4	9.9	12.6	16	19.4	24.1	118.2
	72h	1.7	2.7	3.6	5.8	8	10.9	14	18.2	30.5
29	1h	5.7	8.6	10.5	12.8	16.5	19.7	23	26.7	
	1.5h	6.7	9.8	12.1	15.8	20.7	24.3	27	31.1	
	2h	7.4	11.3	14.1	18.2	23.1	26.1	29.4	33.3	106.3
	3h	8.2	12.9	15.5	19.4	23.6	26.4	28.8	32.3	
	6h	8.5	12.5	14.9	18.5	21.8	24.5	27.2	29.9	
	12h	8.4	12.8	15.4	18.7	21.3	24.7	26.6	29.8	
	18h	6.5	8.8	10.5	12.8	15.8	18.4	21	23.8	
	24h	8.7	13.3	16.4	20.3	22.8	26.9	28.9	32.6	85.9
	72h	5.8	9	11	13.8	15.5	18.4	21.6	25.1	10.2
30	1h	0.1	0.2	0.3	0.5	0.6	0.7	1.2	2.7	
	1.5h	0.1	0.3	0.4	0.5	0.6	1.9	3.2	5.6	
	2h	0.1	0.3	0.4	0.5	1.8	3.2	5.2	8.1	90.5
	3h	0.1	0.3	0.3	1.5	3.4	5.5	7.8	10.8	
	6h	0.1	0.7	1.8	3.1	5.3	7.6	10.1	13.8	
	12h	0.1	1.4	2	3.4	5.7	7.8	10	13.1	
	18h	1.1	1.9	2.6	3.7	5.7	7.5	9.5	12.4	
	24h	0.7	1.1	2	3.5	5.2	7.6	10.4	14.4	134.8
	72h	1.2	2	2.7	3.9	5.4	7.1	9.2	12.4	20.7
31	1h	1.1	1.8	2.4	3.9	7.5	11.4	16.9	23.4	
	1.5h	1.2	2.8	4	7.2	12.1	18.7	25.1	35.5	
	2h	1.9	3.9	5.9	10.1	18.2	25.2	33.5	43.8	116.7
	3h	2.7	6.6	9.6	15.9	26.3	34.7	42.6	50.4	
	6h	6.1	11.4	17.9	24.6	33.4	38.9	43.5	49.4	
	12h	9.1	15.5	19.8	27.2	34.7	38.2	41.4	49.1	
	18h	14.3	20.3	24.4	29.3	35.3	39.1	42.4	46.7	
	24h	11.8	15.4	18.9	26.4	33.1	39	44.5	51.1	107.5
	72h	15.1	20.8	24.5	29.7	34.3	37.8	40.6	45.3	31.9
32	1h	8.4	14.1	17.1	24.3	33.6	47.7	52.1	62.6	
	1.5h	11.6	19.3	24.2	32.9	46.3	56	65.7	79.3	
	2h	13.8	24.4	30.7	42.3	54.8	65.8	76.7	96.9	249.6
	3h	19	34	42.2	51.6	68.4	81.1	97.9	119.2	
	6h	32.4	46.3	55.8	69.9	91.1	106.2	124	132.9	
	12h	34.5	49.5	60.6	74	89.7	107.9	117.5	129.7	
	18h	40.5	53	61.3	73.1	87.7	101.7	115.3	123.8	
	24h	33.9	45.4	57.6	71.9	86.4	106.4	124.9	135.3	309.8
	72h	44.4	58.4	66.6	76.8	89	104.1	114.3	132	175.2

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
33	1h	0	0	0	0	0	0	0	0	
	1.5h	0	0	0	0	0	0	0	0.7	
	2h	0	0	0	0	0	0	0.3	2.1	84
	3h	0	0	0	0	0	0.9	2.3	4.1	
	6h	0	0	0	0	1.9	3.3	4.6	6.2	
	12h	0	0	0	0.5	1.8	3	4	5.1	
	18h	0	0	0	0.1	1.8	2.9	3.9	5.1	
	24h	0	0	0	0.2	1.4	2.5	3.9	5.6	51.6
	72h	0	0	0	0.8	1.7	2.9	4.2	27.1	45.3
34	1h	0	0	0	0	0	0.1	0.6	2.6	
	1.5h	0	0	0	0	0	0.7	2.1	3.7	
	2h	0	0	0	0	0.2	1.5	2.7	4.1	165.7
	3h	0	0	0	0.3	0.9	1.9	3.2	5.5	
	6h	0	0.2	0.4	1.1	2.8	4.5	6.3	8.6	
	12h	0	0.5	0.6	1.4	2.8	4.3	5.8	7.3	
	18h	0	0.7	1.1	1.5	2.6	4	5.2	7.1	
	24h	0	0.3	0.5	1.1	2.2	3.7	5.5	8	71.7
	72h	0.2	0.5	0.8	1.6	2.7	4.1	5.8	32.4	75
35	1h	1.3	2.2	3.8	6.2	9.7	12.3	15.1	19.2	
	1.5h	1.5	3.9	5.8	8.9	12.5	15.9	19.1	23.1	
	2h	1.8	4.9	7.3	10.2	14.1	17	19.9	23.8	79.6
	3h	2.5	5.9	8	10.8	14	16.6	19.4	23	
	6h	2.6	5.4	7.1	9.5	11.9	14.1	16.5	19.4	
	12h	2.4	5.5	7.3	9.8	11.8	14	16.2	19	
	18h	1.5	3	4.2	5.9	7.9	9.6	11.6	14.2	
	24h	2.8	6.3	8.6	11.6	13.5	16.4	19.1	22.8	105.3
	72h	1.3	2.8	4.4	6.5	7.7	9.8	12	14.9	22.2
36	1h	4	7.2	10.3	13.2	16.4	21.1	26.7	34.1	
	1.5h	5.1	10.3	13	15.2	21.6	27.6	33.6	42	
	2h	6	11.2	13.4	17.1	24.5	30.2	36.3	44.6	113.3
	3h	7	11.8	14.2	18.3	24.7	29.9	35.8	43.6	
	6h	7.1	11.2	13.1	16.6	21.7	26.3	30.8	37.5	
	12h	7.1	12	13.8	17.1	21.5	26.7	31.8	38.7	
	18h	6.1	8.9	10.6	12.6	14.9	18	21.9	27.1	
	24h	7.5	12.4	14.9	20.5	24.3	29.8	35.9	44.2	121.9
	72h	5.2	7.6	10	12.7	14.4	17.7	22.4	28.7	101.9
37	1h	0.6	2	3.9	6.3	9.4	13.6	18.9	26.2	
	1.5h	0.6	3.7	5.8	8	14	19.6	25.4	33.6	
	2h	0.8	4.4	6.4	9.7	16.5	21.9	28	36.4	142
	3h	1.4	4.7	6.8	10.6	16.5	21.7	27.5	35.4	
	6h	1.4	4.1	5.7	8.9	13.6	18	22.4	29	
	12h	1.5	4.7	6.3	9.6	13.5	18.4	23.3	30	
	18h	0.5	2.4	3.5	5.2	7.6	10.3	13.9	18.9	
	24h	1.7	5.2	7.4	12.6	16.1	21.4	27.4	35.7	149.2
	72h	0.2	1.5	3.1	5.1	6.5	9.6	13.9	20	118.3
38	1h	0	0	0.1	1.3	5	7.9	11.3	17.4	
	1.5h	0	0	0.7	3.5	7.5	10.9	15	21.1	
	2h	0	0	1.3	4.1	8.1	11.8	16	21.7	128.4
	3h	0	0.1	1.6	4.3	7.5	10.6	14.3	19.7	
	6h	0	0	0.7	3.1	5.9	8.5	11	14.8	
	12h	0	0.1	1.3	4.2	6.6	9.1	12.2	16.2	
	18h	0	0	0	0.5	2.6	4.5	6.6	9.2	
	24h	0	0.2	1.9	4.8	6.6	9.6	13.3	18.8	113.3
	72h	0	0	0	0.1	1.1	2.6	5.1	8.6	132.2
39	1h	0.3	0.6	0.8	1	1.3	1.5	2.2	3.2	
	1.5h	0.3	0.6	0.8	1.1	1.7	2.4	3.3	5	
	2h	0.4	0.6	0.8	1.2	2	3.2	4.5	6.4	33.4
	3h	0.4	0.6	0.9	1.6	3	4.3	5.5	7.2	
	6h	0.3	0.6	1.2	2.1	3.2	4.3	5.4	6.9	
	12h	0.4	0.6	1	1.6	2.6	3.7	5	6.7	
	18h	0.3	0.5	0.7	1.1	1.6	2.3	3	4.1	
	24h	0.4	0.6	1.3	2.4	3.3	4.4	5.6	7.4	43.7
	72h	0.2	0.4	0.6	1.2	1.8	2.7	3.7	5.1	9.5
40	1h	1.2	2	2.4	3.1	4.6	5.8	7.2	9.1	
	1.5h	1.2	2	2.9	4.1	5.7	6.9	8.3	10.2	
	2h	1.3	2.2	3.2	4.4	5.9	7.2	8.6	10.3	31.8
	3h	1.2	2.4	3.3	4.5	5.7	6.8	8.1	9.8	
	6h	1	2.2	2.9	3.8	4.7	5.6	6.5	7.7	
	12h	1.1	2.4	3.2	4.2	5	5.9	6.8	8	
	18h	0.8	1.2	1.8	2.5	3.3	4	4.7	6	
	24h	1.3	2.5	3.5	4.7	5.5	6.7	7.9	9.6	35.1
	72h	0.6	1.1	1.7	2.6	3.2	4	4.8	6	7.7

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
41	1h	0.8	1.6	2.2	3	4.2	5.3	6.6	8.4	
	1.5h	1.1	2.1	2.9	3.8	5.2	6.3	7.6	9.4	
	2h	1.3	2.4	3.1	4.1	5.5	6.6	7.8	9.4	79.8
	3h	1.5	2.5	3.2	4.2	5.3	6.3	7.4	9	
	6h	1.5	2.3	2.9	3.7	4.5	5.2	6	7.1	
	12h	1.6	2.6	3.2	4	4.7	5.5	6.3	7.4	
	18h	1.2	1.7	2.1	2.7	3.3	3.8	4.4	5.6	
	24h	1.5	2.7	3.5	4.5	5.2	6.3	7.4	8.9	77.9
	72h	1	1.6	2.1	2.7	3.1	3.8	4.5	5.5	87.6
42	1h	0.1	1.1	1.9	3.2	5.3	7	8.6	11.1	
	1.5h	0.4	1.9	3	4.7	6.9	8.5	10.3	13.1	
	2h	0.7	2.3	3.5	5.1	7.1	8.9	10.7	13	40.8
	3h	1	2.5	3.6	5.2	6.8	8.2	10	12.4	
	6h	0.8	2	2.9	4.2	5.2	6.4	7.6	9.5	
	12h	0.9	2.2	3.1	4.1	4.9	5.9	6.8	8.6	
	18h	0.3	1	1.5	2.3	3.2	4.2	5.4	7.1	
	24h	1.1	2.6	3.9	5.4	6.3	7.8	9.4	11.4	51.6
	72h	0.1	0.8	1.5	2.4	2.9	3.8	4.8	6.1	10
43	1h	0.6	1.8	2.4	3.5	4.8	5.9	7	8.7	
	1.5h	0.8	2.1	2.9	3.8	4.9	6.1	7.5	9.4	
	2h	0.8	2	2.7	3.8	5	6.3	7.6	9.5	44.6
	3h	0.8	2	2.6	3.5	4.7	5.9	7.4	9.8	
	6h	0.6	1.5	2.1	3	4.3	5.8	7.4	9.8	
	12h	0.8	1.7	2.5	3.6	4.4	5.7	7.2	9.5	
	18h	0.3	0.8	1.2	1.8	2.8	3.6	4.4	5.7	
	24h	0.9	1.9	2.6	3.9	4.7	5.9	7.7	10.2	59.1
	72h	0.2	0.6	1	1.9	2.4	3.5	5	7.2	16.4
44	1h	1.2	2.1	2.7	3.4	4.4	5.1	5.9	7.3	
	1.5h	1.4	2.3	2.9	3.6	4.6	5.5	6.4	7.6	
	2h	1.5	2.4	3	3.7	4.5	5.2	6.1	7.3	30.61
	3h	1.5	2.3	2.8	3.6	4.2	4.9	5.8	7.3	
	6h	1.2	1.9	2.4	3	3.9	4.8	5.9	7.4	
	12h	1.2	1.7	2.2	2.9	3.7	4.7	5.8	7.2	
	18h	0.9	1.4	1.8	2.3	2.6	3.1	3.6	4.6	
	24h	1.5	2.2	2.7	3.3	3.9	5	6.1	7.7	40.4
	72h	0.75	1.1	1.4	2	2.5	3.4	4.4	5.9	11.3
45	1h	1.1	2.2	2.9	3.8	5.1	6.1	7.1	8.6	
	1.5h	1.5	2.6	3.2	4.2	5.4	6.5	7.6	9.2	
	2h	1.6	2.6	3.3	4.3	5.4	6.3	7.4	8.7	101.7
	3h	1.6	2.6	3.3	4.2	5.1	6	7	8.3	
	6h	1.4	2.1	2.8	3.6	4.2	5	5.8	7	
	12h	1.6	2.4	2.9	3.5	4	4.7	5.5	6.6	
	18h	1.3	1.8	2.2	2.8	3.1	3.7	4.4	5.4	
	24h	1.7	2.7	3.4	4.2	4.7	5.6	6.5	7.7	119.3
	72h	1.2	1.6	1.9	2.5	2.8	3.3	3.8	7.4	94.5
46	1h	0.7	1.5	1.9	2.7	3.8	4.5	5.2	6.2	
	1.5h	1	1.9	2.4	3.2	4.1	4.8	5.6	6.6	
	2h	1.7	2	2.5	3.2	4.1	4.8	5.5	6.4	99
	3h	1.3	2	2.6	3.2	3.9	4.6	5.3	6.1	
	6h	1.2	1.8	2.1	2.6	3.2	3.8	4.4	5.2	
	12h	1.4	2	2.4	2.9	3.2	3.7	4.2	5	
	18h	1.1	1.5	1.8	2.2	2.5	2.9	3.5	4.2	
	24h	1.3	2.2	2.7	3.4	3.8	4.4	5	5.8	176.5
	72h	0.9	1.3	1.6	2	2.3	2.7	3.1	3.7	97.3
47	1h	0.1	0.3	0.6	1	1.9	2.6	3.4	4.8	
	1.5h	0.2	0.6	1	1.6	2.7	3.4	4.2	5.5	
	2h	0.3	0.9	1.3	1.9	2.9	3.6	4.4	5.6	96.7
	3h	0.5	1.1	1.5	2.1	2.9	3.6	4.3	5.4	
	6h	0.7	1.2	1.6	2.2	2.8	3.4	4	5	
	12h	0.6	1.3	1.7	2.4	2.9	3.6	4.2	5.3	
	18h	0.8	1.2	1.6	2.1	2.5	3	3.5	4.4	
	24h	0.7	1.2	1.7	2.5	3	3.8	4.5	5.8	113.6
	72h	0.7	1.1	1.3	1.7	2	2.6	3.1	4.1	51.1
48	1h	2.3	2.6	2.6	3.4	4	5.5	8.9	10.4	
	1.5h	2.3	2.6	3.2	3.5	6.7	9.9	7.3	9.4	
	2h	2.1	2.5	4	3.3	5.5	5.9	9.4	12.4	48
	3h	2.4	3	3.1	3.6	10.9	6.4	12.4	10.7	
	6h	2.4	2.8	4.3	3.6	4.8	6.7	8.1	10.1	
	12h	2.4	2.6	2.7	6.1	4.4	6.2	8.9	10.4	
	18h	1.9	2.3	2.7	7.6	6.3	5.6	7.7	10.3	
	24h	2.3	4.7	4.7	5.8	4.6	6.7	9.5	11	53.7
	72h	2.4	2.1	4.2	2.7	3.1	5.1	6	10	14.2

Location	Storm Duration	Peak Flow (m^3/s)								
		2 Year ARI	5 Year ARI	10 Year ARI	20 Year ARI	50 Year ARI	100 Year ARI	200 Year ARI	500 Year ARI	PMF
49	1h	3.6	6.1	7.8	10.3	13.2	17.6	17.7	21	
	1.5h	4.1	6.9	8.6	10.8	13	14.9	16.6	19	
	2h	4.2	6.8	8.6	10.9	12.9	15.1	17.1	19.9	43.9
	3h	4.2	6.8	8.4	10.4	11.7	13.4	15	17.1	
	6h	3.6	5.8	6.9	8.8	10	11.6	13.2	15.4	
	12h	3	5.6	6.9	8.2	9.3	10.9	12.8	14.9	
	18h	2.6	4.4	5.7	7.3	8.1	9.5	10.9	12.6	
	24h	4.4	6.1	7	8.3	8.9	10.1	11.5	13.2	14.2
	72h	1.9	2.9	3.6	4.3	4.8	5.5	6.3	7.4	5
50	1h	4.2	7.2	8.9	11.4	14.6	19.4	19.7	22.9	
	1.5h	5	7.9	10.3	12.9	15.6	18	20.2	23.2	
	2h	5.1	7.9	9.9	12.8	15.2	17.7	20.1	23.3	58.1
	3h	5	7.7	10	12.3	13.9	15.9	18	20.6	
	6h	4.2	6.9	8.3	10.7	12.2	14.1	16	18.6	
	12h	3.7	6.6	8.2	10	11.3	13.2	15.4	17.9	
	18h	3.2	5.3	6.9	8.9	10.2	11.9	13.6	15.8	
	24h	2.5	7.5	8.8	10.4	11.2	12.7	14.4	16.6	16
	72h	7.9	3.6	4.4	5.3	5.8	6.8	7.9	9.3	6.1
51	1h	2.5	3.7	4.4	5.8	8.2	10.3	12.9	17	
	1.5h	2.8	4.1	4.9	6.3	8.9	11.5	14.4	18.6	57.2
	2h	2.7	3.9	4.8	6.5	9.4	12	14.9	18.9	
	3h	2.7	3.8	4.8	6.2	9	11.5	14.1	17.7	
	6h	2.3	3.3	4.2	6.2	8.3	10.2	12.1	14.6	
	12h	2.1	3.2	4.8	7.3	9	11.1	13.1	15.7	
	18h	1.7	2.3	2.9	4.2	5.9	7.4	8.9	10.8	
	24h	2.4	3.5	4.6	7.2	8.9	11.6	14.3	18.2	63.4
	72h	1.1	1.7	2.2	4	5.3	7.1	8.8	11.2	72.3

Appendix G – PMP Calculation Sheets

Location Information					
Catchment:	Ross Creek		Area:	26.1	km^2
State:			Duration Limit:	6	hrs
Latitude:	19.5		Longitude:	146.5	
Portion of Area Considered:					
Smooth, S =	0		Rough, R =	1	

Elevation Adjustment Factor (EAF)		
Mean Elevation	8	m
Adjustment for Elevation (-0.05 per 300m above 1500m) =		
EAF =	1	

Moisture Adjustment Factor (MAF)		
MAF =	0.94	(from Figure 3 of GSDM handbook)

PMP Values (mm)				
Duration (hours)	Initial Depth Smooth (D_S)	Initial Depth Rough (D_R)	PMP Estimate = (D_S X S + D_R X R) X MAF X EAF	Rounded PMP Estimate (nearest 10mm)
0.25		195	183.3	180
0.5		287	269.78	270
0.75		365	343.1	340
1		430	404.2	400
1.5		555	521.7	520
2		645	606.3	610
2.5		715	672.1	670
3		780	733.2	730
4		885	831.9	830
5		980	921.2	920
6		1040	977.6	980

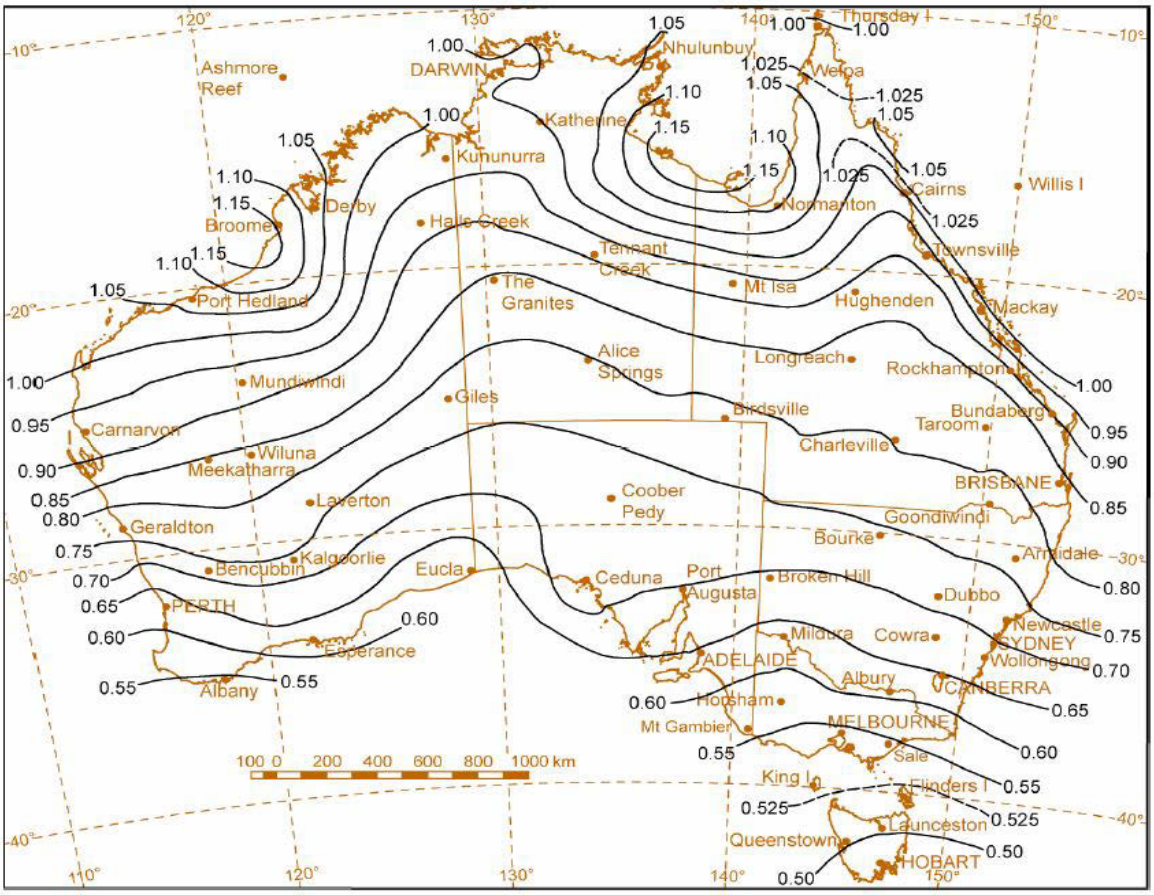


Figure 3: Moisture Adjustment Factor

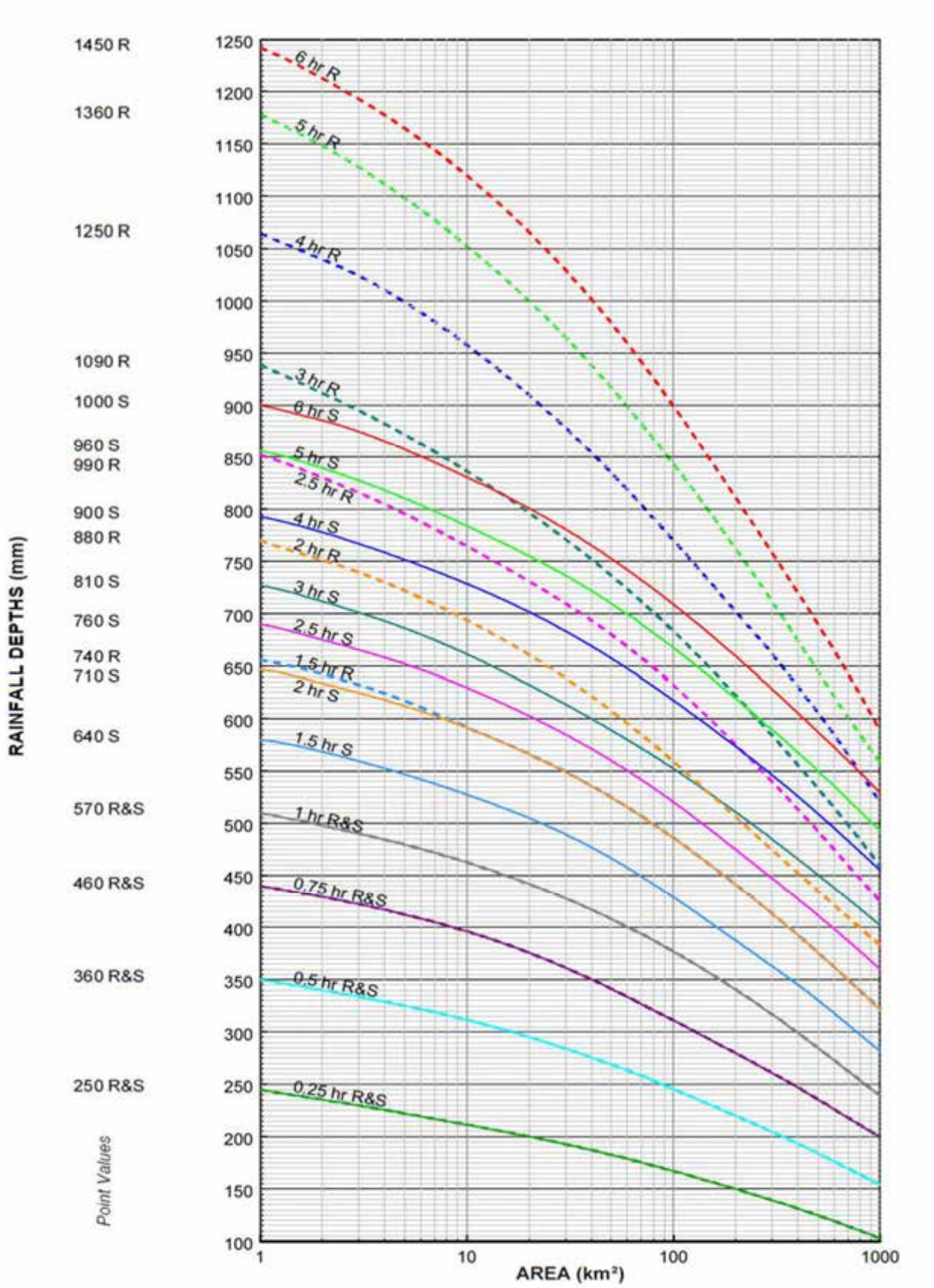


Figure 4: Depth-Duration-Area Curves of Short Duration Rainfall

Worksheet: Generalised Tropical Storm Method Revised

Location Information

Catchment Name: Ross Creek State QLD

GSTMR zones(s): GSTMR Coastal Zone
(refer Figure 1.1)

Catchment Factors

Topographic Amplitude Factor	**TAF** =	1.431	(1.0 -2.0)
Decay Amplitude Factor	**DAF** =	1	(0.7 -1.0)
Annual Moisture Adjustment Factor	**MAF_a** =	$EPW_{catchment}$/120.00	
Extreme Precipitable Water ($EPW_{catchment}$) = 97.43	**MAF_a** =	0.811916667	(0.4-1.1)
Winter Moisture Adjustment Factor	**MAF_w** =	$EPW_{catchment\_winter}$/82.30	
Winter EPW ($EPW_{catchment\_winter}$) =	**MAF_w** =	0	(0.4-1.1)

PMP Values (mm) - Annual

Duration (hours)	Initial Depth (D_a)	PMP Estimate =D_axTAFxDAFxMAF$_a$	Prelimiary PMP Estimate (nearest 10mm)	Final PMP Estimate (from Envelope)
1	Where applicable, calculate GSDM (BoM 2003) depths			400
2				645
3				730
4				830
5				920
6				980
12	(no prelimiary estimates available)			1210
24	1350.94	1569.6	1570	1570
36	1660.86	1929.7	1930	1930
48	1941.69	2256.0	2260	2260
72	2441.28	2836.4	2840	2840
96	2740.80	3184.4	3180	3180
120	2870.03	3334.6	3330	3330

PMP Values (mm) - Winter (where applicable)

Duration (hours)	Initial Depth (D_w)	PMP Estimate =D_wxTAFxDAFxMAF$_w$	Prelimiary PMP Estimate (nearest 10mm)	Final PMP Estimate (from Envelope)
1	Where applicable, calculate GSDM (BoM 2003) depths			
2				
3				
4				
5				
6				
12	(no prelimiary estimates available)			
24				
36				
48				
72				
96				
120				

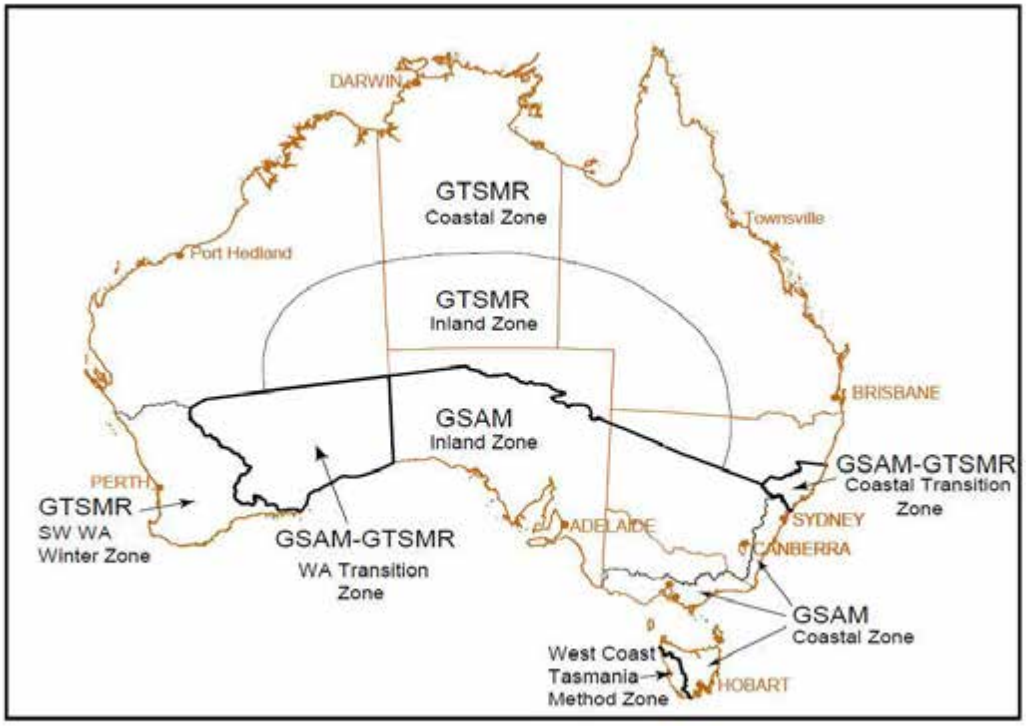
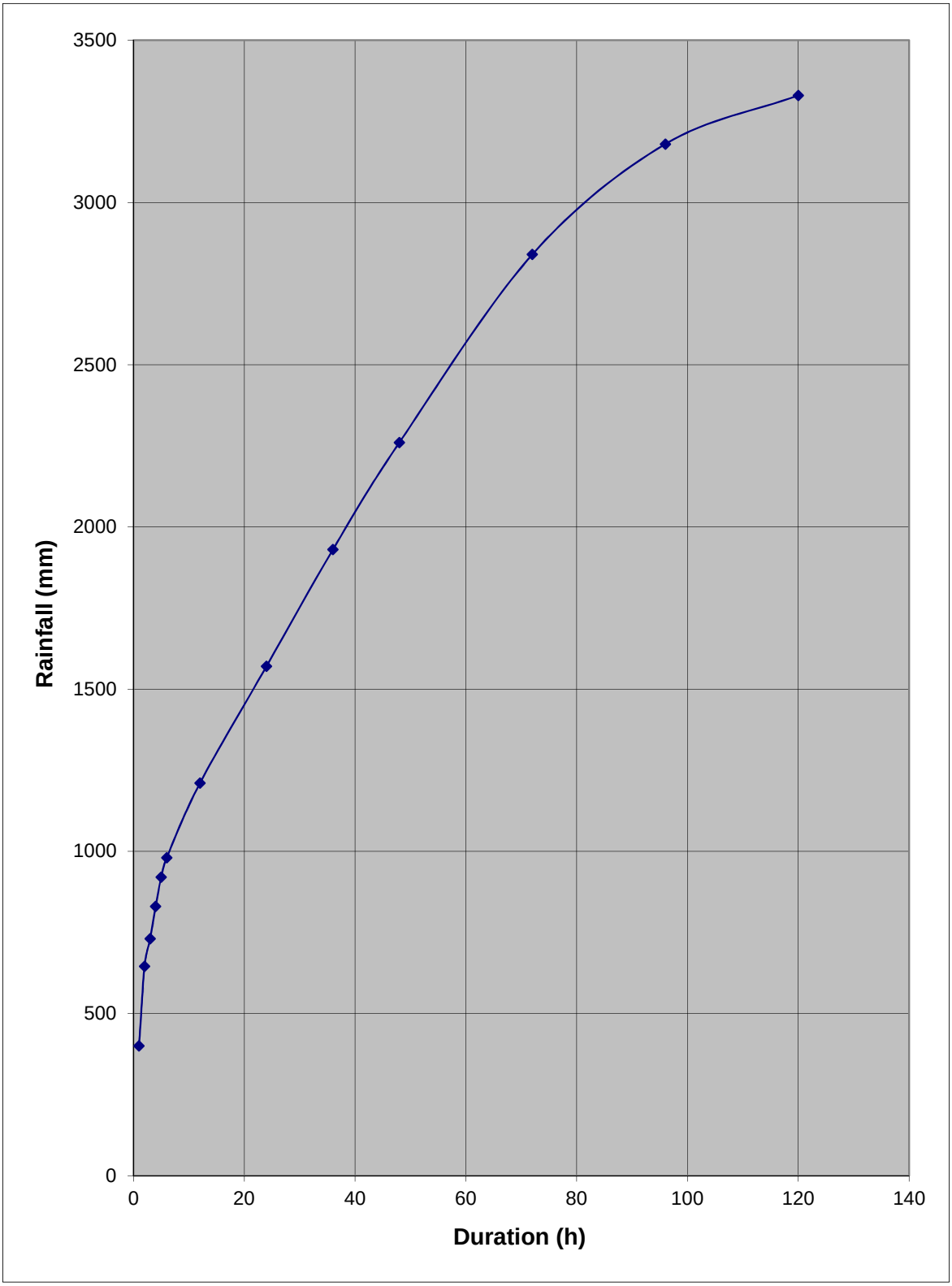


Figure 1.1: Generalised PMP method zones


3500
3000
2500
2000
1500
1000
500
0
Rainfall (mm)
0
20
40
60
80
100
120
140
Duration (h)