

TABLE 1.1 Table of Interviews and Complaints from Residents

ADDRESS	NAME	PHONE	DATE RECEIVED	COMPLAINT
3007 Invergarry	Black		7/30/2015	Street flooding on Laurencekirk Rd. (3' +/-). Yard Flooding. Garage flooding (5' +/- on May 1, 2010).
3071 dumbarton Rd	McCormick	901-288-7250	7/30/2015	Street Flooding, 2' – 4'. Homes on Invergarry and Whitney experienced extensive damage on May 1, 2010. Aging dam/spillway infrastructure. Main drain inadequate to handle emergency spillway channel water flow. Reduced stormwater capacity due to north end of basin filled in. Water entering channel to basin from drainage area north of Whitney causes flooding on Whitney and home at 3089 Whitney.
2830 Allen	Allen	901-550-6137	7/30/2015	Frequent yard and garage flooding.
2813 Allen	Steele	901-552-4163	7/30/2015	Ditch that runs behind home always holds water.
3220 Whitney	Brady	901-378-2542	7/30/2015	Frequent yard and garage flooding. Collapsed retaining wall. Property eroding every time it rains. Water stand & flows through back yard causing grass to not adhere and hole in yard from water flow. Rain & elevation between home and neighbor's home causes patio, back door and carport to flood.
3402 James Road	Wade	901-372-1013	7/30/2015	Frequent yard and garage flooding. 8" – 12" deep.
3294 Rickey	Watts	901-382-2254	7/30/2015	Members of the Raleigh Frayser Assoc. have flooding problems (streets and homes)
	Wolf River Conservancy	901-452-6500	8/20/2015	Yard flooding. Water from apartment complex to north.
3089 Whitney	Riggins	901-358-5223	8/20/2015	Street, yard and building flooding. 2" – 3".
3378 Jewell Rd.	Cheryl		Oct., 2015	Interview. Mr. Cheryl described frequently flooding of his property, buildings and Jewell Road. Mr. Cheryl accompanied NSI staff on a walk though of his property pointing out various features of the drainage system and points of flooding.



City of Memphis – Stormwater Master Plan

Neighborhood Meeting for Windermere Basin
July 30, 2015 & August 20, 2015

QUESTIONNAIRE

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1. Do you live within the Study Area? Yes No Not Sure (Please ask our team)
2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other
4. Do you own or rent your home? Own Rent *with my 2 sons*
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input checked="" type="checkbox"/> Street Flooding	<i>on Laurencekirk Rd</i>	<i>3'±</i>	
<input checked="" type="checkbox"/> Yard Flooding	<i>N. side "Laurencekirk Rd</i>	<i>1'± feet deep</i>	
<input checked="" type="checkbox"/> Garage Flooding	<i>5'±</i>	<i>May 01, 2010</i>	<i>s. side Conc. channel lined Ditch 2927 Invergarry Rd. Lot 177</i>
<input type="checkbox"/> Basement Flooding			
<input type="checkbox"/> Main Building Flooding			

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No
If so, describe: _____
7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No
If so, describe: _____
8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

Exhibit 1.2
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2. Do you own property within the Study Area? Yes No ___ Not Sure ___
3. Your property is: A home A business ___ Other _____
4. Do you own or rent your home? Own Rent ___
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input checked="" type="checkbox"/> Street Flooding	<u>2 ft. 4ft</u>	<u>1 in 2-3 yrs</u>	<u>May 1, 2010</u>
<input checked="" type="checkbox"/> Yard Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Garage Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Basement Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No ___

If so, describe: In Scenic Hills, about 14 homes on Invermay & 3086 Whitney on experienced extensive damage (2-4 ft water in homes) on May 1, 2010

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No ___

If so, describe: Photos

8. May we contact you to discuss further? Yes No ___

(Please see back for additional information.)

<p align="center">Exhibit 1.2 July 30, 2015 Public Meeting Questionnaires</p>
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QUESTIONNAIRE

Additional Comments: *Issues: Loch Navin Lake/Dam - Scenic Hills*
Aging dam/spillway infrastructure - 50 yrs old
Reduced stormwater holding ^{capacity} basin due to
northend of basin filled in
Main drain inadequate to handle emergency
spillway channel water flow
Water entering channel to basin from drainage
area north of Whitney causes flooding on Whitney and
home at 3089 Whitney

Thank you for your participation!

Personal Information (REQUIRED)

Name: John McCormick

Home Address: 3071 Dambarton Rd
Memphis 38128

Phone: 901-288-7250 / 353-5427

Email: johnsmcc2004@yahoo.com

Please mail in no later than August 31, 2015 to:

Powers Hill Design, LLC
80 Monroe Avenue, Suite 420
Memphis, TN 38103
Attn: WINDERMERE

If you have questions, please email info@raleighfrayserwater.com or call 901.543.8000.

Exhibit 1.2
July 30, 2015 Public Meeting
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2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other _____
4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input type="checkbox"/> Street Flooding	6-8"	heavy rain	_____
<input checked="" type="checkbox"/> Yard Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Garage Flooding	_____	_____	_____
<input type="checkbox"/> Basement Flooding	_____	_____	_____
<input type="checkbox"/> Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No

If so, describe: Hems in garage

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No

If so, describe: photos

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

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4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input type="checkbox"/> Street Flooding	_____	_____	_____
<input type="checkbox"/> Yard Flooding	_____	_____	_____
<input type="checkbox"/> Garage Flooding	_____	_____	_____
<input type="checkbox"/> Basement Flooding	_____	_____	_____
<input type="checkbox"/> Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No
If so, describe: _____

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No
If so, describe: _____

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

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QUESTIONNAIRE

Additional Comments:

THE RAW DITCH THAT RUNS BEHIND MY HOME, ALWAYS HOLDS WATER.

Thank you for your participation!

Personal Information (REQUIRED)

Name: Robert Steele

Home Address: 2813 ALLEN
MEMPHIS TN. 38128

Phone: 901-552-4163

Email: STAPWR57@G-MAIL.COM
(ALL LOWER CASE)

Please mail in no later than August 31, 2015 to:

Powers Hill Design, LLC
80 Monroe Avenue, Suite 420
Memphis, TN 38103
Attn: WINDERMERE

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2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other _____
4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input type="checkbox"/> Street Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Yard Flooding	_____	Everytime it rains	_____
<input checked="" type="checkbox"/> Garage Flooding	_____	Everytime it rains	_____
<input type="checkbox"/> Basement Flooding	_____	_____	_____
<input type="checkbox"/> Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No

If so, describe: Retaining wall collapsed

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No

If so, describe: Photos

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

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QUESTIONNAIRE

Additional Comments:

Property is eroding everytime it rains. Water stands & flows through my back yard causing grass to not adhere & holes in yard from water flow. Rain & elevation between my home & my neighbors causes patio, back door & carport to flood.

Thank you for your participation!

Personal Information (REQUIRED)

Name: Karen J. Brady

Home Address: 3220 Whitney
Memphis, TN 38138

Phone: 901-378-2542

Email: Krbrady@bellsouth.net

Please mail in no later than August 31, 2015 to:

Powers Hill Design, LLC
80 Monroe Avenue, Suite 420
Memphis, TN 38103
Attn: WINDERMERE

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1. Do you live within the Study Area? Yes No Not Sure (Please ask our team)
2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other
4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input type="checkbox"/> Street Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Yard Flooding	8"	3 TIMES	1 This year
<input checked="" type="checkbox"/> Garage Flooding	12"	Twice	1 This year
<input type="checkbox"/> Basement Flooding	_____	_____	_____
<input type="checkbox"/> Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No

If so, describe: STORAGE items in Garage GARAGE

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No

If so, describe: I TOOK pictures of yard.

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

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1. Do you live within the Study Area? Yes No Not Sure (Please ask our team)
2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other
4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

Type of Flooding	How Deep	How Often	Date of Last Occurrence
<input type="checkbox"/> Street Flooding	<i>We live on a hill and we have not had flooding at our residence, but our neighbors on nearby streets have. We are members of the Raleigh/Haysen Assoc. & our members have flooding problems (streets + homes).</i>		
<input type="checkbox"/> Yard Flooding			
<input type="checkbox"/> Garage Flooding			
<input type="checkbox"/> Basement Flooding			
<input type="checkbox"/> Main Building Flooding			

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No
If so, describe: _____

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No
If so, describe: _____

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

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1. Do you live within the Study Area? Yes ___ No X Not Sure ___ (Please ask our team)
2. Do you own property within the Study Area? Yes X No ___ Not Sure ___
3. Your property is: A home ___ A business ___ Other Land
4. Do you own or rent your home? Own ___ Rent ~~___~~
5. What flooding problems have you experienced around or near your property?

<u>Type of Flooding</u>	<u>How Deep</u>	<u>How Often</u>	<u>Date of Last Occurrence</u>
___ Street Flooding	_____	_____	_____
<u>X</u> Yard Flooding	<u>influx of water</u>	<u>From apartment complex to north</u>	<u>laden with trash</u>
___ Garage Flooding	_____	_____	_____
___ Basement Flooding	_____	_____	_____
___ Main Building Flooding	_____	_____	_____

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes ___ No X
 If so, describe: We will be building a 12' wide paved trail with potential buildings for education/nature center at the end of Epping Way Drive
7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes ___ No ___
 If so, describe: _____
8. May we contact you to discuss further? Yes X No ___

(Please see back for additional information.)



City of Memphis – Stormwater Master Plan

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QUESTIONNAIRE

Additional Comments:

Our Land along Wolf River has potential to hold/Filter additional stormwater.

If we can help, just reach out. We have education opportunities that we can partner with.

Thank you for your participation!

Personal Information (REQUIRED)

Name: Ryan Hall, Wolf River Conservancy

Home Address: _____

Phone: 901-452-6500 ext. 104

Email: ryan.hall@wolfriver.org

Please mail in no later than August 31, 2015 to:

Powers Hill Design, LLC
80 Monroe Avenue, Suite 420
Memphis, TN 38103
Attn: WINDERMERE

If you have questions, please email info@raleighfrayserwater.com or call 901.543.8000.

**Exhibit 1.3
August 20, 2015 Public Meeting
Questionnaires**



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Neighborhood Meeting for Windermere Basin
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1. Do you live within the Study Area? Yes No Not Sure (Please ask our team)
2. Do you own property within the Study Area? Yes No Not Sure
3. Your property is: A home A business Other
4. Do you own or rent your home? Own Rent
5. What flooding problems have you experienced around or near your property?

<u>Type of Flooding</u>	<u>How Deep</u>	<u>How Often</u>	<u>Date of Last Occurrence</u>
<input checked="" type="checkbox"/> Street Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Yard Flooding	<u>3 INCH</u>	_____	_____
<input checked="" type="checkbox"/> Garage Flooding	<u>2 INCH</u>	_____	_____
<input type="checkbox"/> Basement Flooding	_____	_____	_____
<input checked="" type="checkbox"/> Main Building Flooding	<u>3 INCH</u>	_____	<u>2014 2010 2012</u>

6. Have you ever had property damage (basement, cars, furniture, etc.)? Yes No

If so, describe: INSIDE OF HOUSE - SEWER BACK-UP.

7. Do you have documentation of the flooding (high water marks, photos, videos)? Yes No

If so, describe: P

8. May we contact you to discuss further? Yes No

(Please see back for additional information.)

Exhibit 1.3
August 20, 2015 Public Meeting
Questionnaires

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
JP_100003	1.843	4.41	345.500	1.460	0.012	0.4500	0.0780	0.3820	0.0000	9.0320	0.3510	0.2930
JP_100028	6.223	4.48	921.600	0.486	0.012	0.2080	0.0780	0.2830	0.0000	9.0320	0.3510	0.2930
JP_100046	2.569	18.9	447.600	2.279	0.012	0.3480	0.0780	0.3400	9.6750	12.2450	0.1760	0.2210
JP_100050	0.151	41.16	31.500	2.575	0.012	0.4470	0.0780	0.3810	0.0000	9.0320	0.3510	0.2930
JP_100055	0.911	16.94	134.900	2.385	0.012	0.3700	0.0780	0.3490	29.5500	9.0590	0.3510	0.2930
JP_100066	3.703	16.73	548.400	2.609	0.012	0.4410	0.0780	0.3790	24.5250	13.5810	0.0950	0.1920
JP_100074	4.632	13.51	686.000	2.253	0.012	0.4350	0.0780	0.3770	51.6000	10.5440	0.2700	0.2590
JP_100085	10.476	17.64	1551.500	2.520	0.012	0.4520	0.0780	0.3840	34.7250	10.9760	0.2430	0.2500
JP_100087	5.676	14.63	840.700	2.869	0.012	0.4190	0.0780	0.3700	50.3250	9.5310	0.3240	0.2820
JP_100154	0.765	44.17	269.800	1.449	0.012	0.2280	0.0780	0.2910	10.2000	9.1400	0.3510	0.2900
JP_100183	1.4	11.41	207.300	4.172	0.012	0.4520	0.0780	0.3840	46.2750	13.5140	0.0950	0.1930
JP_100239	1.406	23.45	221.500	1.197	0.012	0.3290	0.0780	0.3330	12.3000	10.3010	0.2840	0.2650
JP_100279	1.567	50.68	483.500	1.159	0.012	0.4390	0.0780	0.3780	1.6500	12.8790	0.1350	0.2070
JP_100283	1.392	66.15	515.400	0.641	0.012	0.1960	0.0780	0.2730	0.0000	11.8400	0.1890	0.2310
JP_100320	1.969	56	369.100	0.765	0.012	0.2030	0.0780	0.2800	3.2250	13.3380	0.1080	0.1970
JP_100329	2.382	35.28	496.900	2.190	0.012	0.4910	0.0780	0.3990	0.3000	13.4190	0.1080	0.1940
JP_100442	4.01	66.15	593.900	3.687	0.012	0.2360	0.0780	0.2940	0.0000	9.0320	0.3510	0.2930
JP_100501	1.104	68.95	163.500	0.421	0.012	0.2030	0.0780	0.2800	0.0000	9.6800	0.3110	0.2780
JP_100518	1.262	19.53	267.000	0.824	0.012	0.3020	0.0780	0.3220	27.6750	9.0320	0.3510	0.2930
JP_100520	2.124	32.2	484.000	3.646	0.012	0.4950	0.0780	0.4020	18.9000	10.4360	0.2700	0.2620
JP_100524	1.138	34.3	280.900	3.058	0.012	0.4620	0.0780	0.3880	15.2250	9.0320	0.3510	0.2930
JP_100528	0.97	21.77	266.100	3.188	0.012	0.3230	0.0780	0.3300	14.3250	13.9460	0.0810	0.1840
JP_100533	2.716	29.05	402.300	4.793	0.012	0.4740	0.0780	0.3920	30.8250	13.0680	0.1220	0.2030
JP_100534	5.125	20.58	759.100	3.056	0.012	0.4480	0.0780	0.3820	24.8250	13.9860	0.0680	0.1820
JP_100537	0.862	100	245.500	2.132	0.012	0.0000	0.0780	0.0000	0.0000	9.0320	0.3510	0.2930
JP_100538	23.67	7	3505.600	3.488	0.012	0.4310	0.0780	0.3740	29.3250	14.2020	0.0680	0.1770
JP_100541	3.649	5.6	675.500	2.723	0.012	0.4670	0.0780	0.3890	0.0000	9.0720	0.3510	0.2920
JP_100566	1.555	57.26	242.400	2.372	0.012	0.2240	0.0780	0.2880	13.6500	11.9480	0.1890	0.2280
JP_100574	0.521	35.91	171.500	0.771	0.012	0.4770	0.0780	0.3930	0.0000	9.0320	0.3510	0.2930
JP_100578	6.886	1.33	1019.800	1.333	0.012	0.4170	0.0780	0.3700	0.0000	9.5450	0.3240	0.2820
JP_100580	14.659	14.07	2171.100	3.455	0.012	0.4200	0.0780	0.3710	30.5250	14.0540	0.0680	0.1810
JP_100581	0.991	32.06	209.700	2.882	0.012	0.2030	0.0780	0.2800	31.4250	14.3510	0.0540	0.1740
JP_100584	0.674	0	117.400	5.585	0.012	0.3050	0.0780	0.3220	0.0000	14.3510	0.0540	0.1740
JP_100585	4.665	11.76	690.900	1.458	0.012	0.4330	0.0780	0.3750	35.9250	14.1620	0.0680	0.1780
JP_100592	0.828	20.37	122.600	0.413	0.012	0.4120	0.0780	0.3670	0.0000	9.0320	0.3510	0.2930
JP_100593	20.173	11.9	2987.700	0.449	0.012	0.3750	0.0780	0.3510	28.5000	9.0320	0.3510	0.2930
JP_100600	0.575	57.26	139.600	0.272	0.012	0.2030	0.0780	0.2800	0.0000	10.7330	0.2570	0.2550
JP_1007	3.545	27.3	583.400	0.422	0.012	0.3870	0.0780	0.3570	5.4000	13.1360	0.1220	0.2010
JP_100794	2.382	27.16	511.300	4.321	0.012	0.4290	0.0780	0.3740	26.4750	14.3510	0.0540	0.1740
JP_100845	30.681	7.42	4544.000	1.412	0.012	0.4190	0.0780	0.3700	9.8250	13.0680	0.1220	0.2030
JP_100848	0.508	67.34	125.400	1.178	0.012	0.2030	0.0780	0.2800	0.0000	9.0320	0.3510	0.2930
JP_100849	9.192	3.85	1361.400	1.466	0.012	0.3520	0.0780	0.3420	16.8750	9.2340	0.3380	0.2890
JP_100851	81.091	2.59	12009.900	3.650	0.012	0.4730	0.0780	0.3910	22.3500	13.6760	0.0950	0.1890
JP_100853	1.449	58.03	476.900	0.500	0.012	0.4270	0.0780	0.3720	25.3500	10.1790	0.2840	0.2670
JP_100863	5.809	20.86	860.300	0.701	0.012	0.4020	0.0780	0.3630	29.8500	11.2320	0.2300	0.2440
JP_100866	8.675	3.85	1284.800	0.411	0.012	0.4680	0.0780	0.3910	75.0000	9.4640	0.3240	0.2840
JP_1009	12.361	24.92	1830.700	0.441	0.012	0.4160	0.0780	0.3680	24.1500	9.0450	0.3510	0.2930
JP_101094	2.494	53.83	626.000	0.455	0.012	0.2650	0.0780	0.3050	4.5750	11.8800	0.1890	0.2300
JP_101100	1.239	25.97	286.700	2.013	0.012	0.4900	0.0780	0.3990	0.0000	9.1940	0.3380	0.2890

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
JP_101102	8.809	27.16	1534.900	2.900	0.012	0.3960	0.0780	0.3600	16.2750	14.3240	0.0540	0.1760
JP_101104	6.717	36.4	994.800	0.773	0.012	0.3040	0.0780	0.3220	27.7500	10.1790	0.2840	0.2670
JP_103047	16.99	2.31	2516.300	2.330	0.012	0.4750	0.0780	0.3930	0.0000	9.0320	0.3510	0.2930
JP_103078	10.588	6.02	1568.100	1.900	0.012	0.4210	0.0780	0.3700	9.5250	9.7610	0.3110	0.2770
JP_103095	13.324	13.51	1973.300	0.831	0.012	0.4210	0.0780	0.3710	27.0750	9.0320	0.3510	0.2930
JP_103125	45.741	0.84	6774.400	1.163	0.012	0.3240	0.0780	0.3300	0.0000	9.0320	0.3510	0.2930
JP_103145	2.146	0	341.800	0.674	0.012	0.3460	0.0780	0.3370	0.0000	9.0320	0.3510	0.2930
JP_103168	1.5	15.4	403.900	1.583	0.012	0.4710	0.0780	0.3920	16.2750	10.8540	0.2430	0.2520
JP_103174	5.927	5.46	877.800	2.110	0.012	0.4930	0.0780	0.4000	10.0500	10.4630	0.2700	0.2610
JP_103179	9.764	4.69	1446.100	1.291	0.012	0.3850	0.0780	0.3560	54.6000	10.3410	0.2840	0.2630
JP_11104	12.162	12.6	1801.300	2.549	0.012	0.4440	0.0780	0.3810	36.1500	11.6240	0.2030	0.2350
JP_11170	21.598	5.32	3198.800	1.110	0.012	0.4170	0.0780	0.3680	49.7250	11.1380	0.2300	0.2460
JP_11185	12.973	0.07	1921.300	1.114	0.012	0.4730	0.0780	0.3920	0.0000	9.0320	0.3510	0.2930
JP_11191	25.439	7.77	3767.500	0.703	0.012	0.4020	0.0780	0.3630	28.2750	11.2860	0.2300	0.2430
JP_118	20.772	8.61	3076.400	0.939	0.012	0.3360	0.0780	0.3360	22.5000	9.1800	0.3380	0.2900
JP_150034	46.122	0	6830.800	1.208	0.012	0.4900	0.0780	0.3990	0.0000	9.0320	0.3510	0.2930
JP_200029	59.129	31.36	8757.200	1.824	0.012	0.3380	0.0780	0.3360	0.0750	9.0320	0.3510	0.2930
JP_2001	0.34	29.89	143.900	2.081	0.012	0.3670	0.0780	0.3490	0.0000	9.8150	0.3110	0.2750
JP_2003	0.178	22.75	67.600	1.503	0.012	0.2340	0.0780	0.2930	0.0000	9.0320	0.3510	0.2930
JP_2004	0.181	23.73	78.800	1.305	0.012	0.2710	0.0780	0.3080	0.0000	9.0320	0.3510	0.2930
JP_2006	1.108	41.3	372.900	2.486	0.012	0.3830	0.0780	0.3560	4.5750	12.1640	0.1760	0.2230
JP_2013	0.409	20.51	195.400	1.205	0.012	0.2570	0.0780	0.3020	0.0000	9.0320	0.3510	0.2930
JP_2025	4.255	23.59	630.200	2.157	0.012	0.2750	0.0780	0.3090	32.3250	11.3130	0.2300	0.2420
JP_2031	0.278	44.24	114.400	0.519	0.012	0.2030	0.0780	0.2800	44.1000	12.0020	0.1890	0.2270
JP_2044	23.645	6.72	3501.900	3.458	0.012	0.4190	0.0780	0.3700	30.1500	14.3510	0.0540	0.1740
JP_2054	1.982	21.84	293.600	2.743	0.012	0.3020	0.0780	0.3210	24.9750	9.4770	0.3240	0.2840
JP_2058	8.3	25.34	1229.300	2.295	0.012	0.3890	0.0780	0.3570	24.7500	10.7060	0.2570	0.2550
JP_2070	3.43	33.18	508.000	4.319	0.012	0.4580	0.0780	0.3860	31.0500	12.3390	0.1620	0.2190
JP_2090	23.908	1.33	3540.900	1.216	0.012	0.4090	0.0780	0.3650	0.0000	9.0860	0.3510	0.2920
JP_279	7.793	12.81	1154.200	0.932	0.012	0.3860	0.0780	0.3570	42.3750	9.0320	0.3510	0.2930
JP_30028	2.862	19.11	516.900	0.748	0.012	0.4000	0.0780	0.3610	17.6250	9.0320	0.3510	0.2930
JP_348	28.753	8.12	4258.400	2.427	0.012	0.4100	0.0780	0.3670	32.5500	12.8930	0.1350	0.2070
JP_354	10.85	24.64	1983.900	1.432	0.012	0.3770	0.0780	0.3530	10.7250	9.0320	0.3510	0.2930
JP_356	5	8.47	1057.900	4.290	0.012	0.5130	0.0780	0.4090	23.5500	14.3510	0.0540	0.1740
JP_357	0.11	35.28	65.200	1.095	0.012	0.2320	0.0780	0.2930	0.0000	9.0320	0.3510	0.2930
JP_364	0.299	100	147.600	1.673	0.012	0.0000	0.0780	0.0000	0.0000	9.0320	0.3510	0.2930
JP_373	0.808	21.35	213.700	1.386	0.012	0.3670	0.0780	0.3490	9.6750	9.7070	0.3110	0.2780
JP_540	0.14	69.65	90.100	0.481	0.012	0.2030	0.0780	0.2800	0.0000	9.0320	0.3510	0.2930
JP_542	0.679	41.37	164.900	1.002	0.012	0.5270	0.0780	0.4140	0.0000	9.0320	0.3510	0.2930
JP_5829	13.761	17.29	2038.100	2.926	0.012	0.4580	0.0780	0.3860	32.9250	13.0820	0.1220	0.2030
JP_5834	0.847	27.16	369.000	1.014	0.012	0.3080	0.0780	0.3230	0.0000	9.0320	0.3510	0.2930
JP_5837	0.414	14.07	122.600	0.754	0.012	0.3130	0.0780	0.3260	62.1750	9.0320	0.3510	0.2930
JP_5841	6.703	14.7	992.700	0.669	0.012	0.4090	0.0780	0.3650	22.2000	9.0320	0.3510	0.2930
JP_5844	5.496	6.16	814.000	0.634	0.012	0.3850	0.0780	0.3560	57.4500	9.0320	0.3510	0.2930
JP_6003	41.385	7.7	6129.300	4.077	0.012	0.4670	0.0780	0.3890	30.9750	14.3510	0.0540	0.1740
JP_6005	4.498	12.67	666.200	4.025	0.012	0.4810	0.0780	0.3960	12.6000	14.0400	0.0680	0.1810
JP_6008	0.712	21.91	155.100	2.781	0.012	0.3400	0.0780	0.3370	0.0000	11.8670	0.1890	0.2300
JP_6032	1.089	62.72	645.200	2.989	0.012	0.2030	0.0780	0.2800	0.0000	9.7470	0.3110	0.2770
JP_750	8.35	15.68	1508.100	2.798	0.012	0.4350	0.0780	0.3770	30.9750	9.7340	0.3110	0.2770

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
JP_800222	0.418	56.07	121.400	0.476	0.012	0.2840	0.0780	0.3140	0.0000	10.6250	0.2570	0.2580
JP_800248	14.496	36.12	2146.900	0.782	0.012	0.3820	0.0780	0.3540	15.9750	9.0860	0.3510	0.2920
JP_800254	1.415	46.62	476.300	0.677	0.012	0.2690	0.0780	0.3080	19.8750	11.3810	0.2160	0.2400
JP_800263	1.861	25.83	358.000	0.836	0.012	0.4470	0.0780	0.3820	4.5000	14.0000	0.0680	0.1820
JP_800274	1.847	48.44	325.700	0.736	0.012	0.2980	0.0780	0.3190	4.2000	11.4620	0.2160	0.2390
JP_800288	1.777	38.22	537.100	0.758	0.012	0.4670	0.0780	0.3890	8.9250	9.6530	0.3110	0.2790
JP_800291	17.419	11.62	2579.800	0.871	0.012	0.4020	0.0780	0.3630	32.3250	9.8280	0.3110	0.2750
JP_800397	1.147	60.83	377.500	0.793	0.012	0.2230	0.0780	0.2880	0.0000	9.0320	0.3510	0.2930
JP_800431	1.016	17.08	188.100	4.433	0.012	0.3920	0.0780	0.3580	37.9500	14.3510	0.0540	0.1740
JP_800433	8.728	2.59	1292.600	5.599	0.012	0.4970	0.0780	0.4020	28.5750	14.3510	0.0540	0.1740
JP_800436	17.019	20.51	3550.100	2.655	0.012	0.4430	0.0780	0.3790	29.7000	13.5810	0.0950	0.1920
JP_800437	8	10.08	1316.500	3.749	0.012	0.4310	0.0780	0.3750	32.9250	13.3520	0.1080	0.1970
JP_999032	0.693	100	513.200	0.689	0.012	0.0000	0.0780	0.0000	0.0000	14.3510	0.0540	0.1740
JP_999035	6.028	22.75	1174.700	3.917	0.012	0.4890	0.0780	0.3990	7.2000	14.3510	0.0540	0.1740
JP_999038	12.36	4.9	1830.600	5.257	0.012	0.4750	0.0780	0.3930	25.5750	14.3510	0.0540	0.1740
JP_999039	20.999	15.47	3110.000	1.300	0.012	0.4020	0.0780	0.3630	37.9500	10.1790	0.2840	0.2670
JP_999042	15.249	4.41	2258.500	0.729	0.012	0.2380	0.0780	0.2940	20.5500	9.0990	0.3510	0.2920
JP_999046	3.003	2.03	663.800	1.606	0.012	0.4060	0.0780	0.3640	18.9000	13.5140	0.0950	0.1930
JP_999048	14.104	27.23	2088.900	0.614	0.012	0.3020	0.0780	0.3210	0.0000	9.0320	0.3510	0.2930
JP_999049	12.257	18.55	1815.300	0.610	0.012	0.3960	0.0780	0.3600	13.4250	9.0320	0.3510	0.2930
JP_999050	10.48	6.72	1552.100	0.755	0.012	0.4410	0.0780	0.3790	43.1250	9.0320	0.3510	0.2930
JP_999054	33.22	11.48	4920.000	1.588	0.012	0.4050	0.0780	0.3640	15.5250	11.5160	0.2160	0.2380
JP_999057	52.189	4.97	7729.400	1.472	0.012	0.4310	0.0780	0.3740	12.7500	10.2740	0.2840	0.2650
JP_999058	3.579	8.12	588.900	1.048	0.012	0.3780	0.0780	0.3530	12.3750	10.8000	0.2570	0.2540
JP_999059	26.371	6.44	3905.600	1.288	0.012	0.4200	0.0780	0.3700	16.9500	11.4350	0.2160	0.2390
JP_999167	23.874	3.36	3535.800	1.187	0.012	0.2780	0.0780	0.3110	0.0000	9.0320	0.3510	0.2930
101938	4.195	20.37	621.300	3.167	0.012	0.4520	0.0780	0.3840	5.1000	12.6360	0.1490	0.2120
SL_100889	2.485	68.25	920.100	4.078	0.012	0.2050	0.0780	0.2810	0.0000	10.4760	0.2700	0.2610
SL_1016	0.462	10.01	87.700	2.009	0.012	0.4330	0.0780	0.3750	75.0000	10.2330	0.2840	0.2660
SL_1017	1.801	11.83	306.600	3.387	0.012	0.3700	0.0780	0.3500	71.1000	12.2580	0.1760	0.2210
SL_1021	5.029	20.16	942.800	3.497	0.012	0.4810	0.0780	0.3950	31.8000	14.2160	0.0680	0.1770
SL_1027	0.556	14.21	82.300	3.111	0.012	0.3230	0.0780	0.3110	75.0000	10.3140	0.2840	0.2650
SL_1031	22.876	0.14	3388.000	0.970	0.012	0.3320	0.0780	0.3330	0.0000	10.0850	0.2970	0.2700
SL_1033	2.496	9.73	369.700	3.291	0.012	0.4770	0.0780	0.3930	71.7750	13.3790	0.1080	0.1960
SL_1034	1.115	12.11	165.100	2.989	0.012	0.4560	0.0780	0.3850	75.0000	10.4630	0.2700	0.2610
SL_1041	1.32	21.42	205.800	3.494	0.012	0.4290	0.0780	0.3740	28.7250	14.1480	0.0680	0.1780
SL_1042	12.741	19.88	1887.000	2.643	0.012	0.3660	0.0780	0.3470	32.7000	12.7710	0.1490	0.2090
SL_1058	1.365	55.65	470.200	1.875	0.012	0.3130	0.0780	0.3260	0.0000	13.9460	0.0810	0.1840
SL_1061	6.667	20.86	1452.100	2.824	0.012	0.3770	0.0780	0.3530	21.7500	13.3650	0.1080	0.1960
SL_1081	8.023	10.29	1188.200	2.570	0.012	0.3600	0.0780	0.3460	42.0750	13.4330	0.1080	0.1940
SL_1086	14.384	0.77	2130.300	3.615	0.012	0.4930	0.0780	0.4000	74.5500	9.3020	0.3380	0.2880
SL_1092	1.744	12.81	258.300	2.826	0.012	0.4270	0.0780	0.3720	70.1250	11.7720	0.2030	0.2320
SL_1101	0.985	14.49	194.500	1.739	0.012	0.4430	0.0780	0.3790	11.3250	14.3510	0.0540	0.1740
SL_1114	1.741	3.71	257.900	1.544	0.012	0.4270	0.0780	0.3720	31.5000	14.3510	0.0540	0.1740
SL_1115	5.779	7.28	1069.900	2.094	0.012	0.4120	0.0780	0.3670	24.4500	14.3510	0.0540	0.1740
SL_1126	2.201	15.26	402.400	3.255	0.012	0.3860	0.0780	0.3560	31.7250	14.3510	0.0540	0.1740
SL_1137	3.467	9.52	570.500	2.876	0.012	0.3210	0.0780	0.3290	49.4250	14.3510	0.0540	0.1740
SL_1142	3.731	12.6	581.700	2.606	0.012	0.3470	0.0780	0.3400	27.0750	14.3510	0.0540	0.1740
SL_1150	3.362	3.22	497.900	2.044	0.012	0.2860	0.0780	0.3150	75.0000	14.2560	0.0540	0.1760

Drainage Master Plan - Windermere Study Area

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Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
SL_1163	8.299	12.32	1229.100	1.818	0.012	0.3670	0.0780	0.3490	22.4250	14.3510	0.0540	0.1740
SL_1168	0.458	22.19	260.900	1.975	0.012	0.3000	0.0780	0.3210	0.0000	14.3510	0.0540	0.1740
SL_1174	7.151	10.01	1059.100	1.948	0.012	0.4010	0.0780	0.3630	29.0250	14.3510	0.0540	0.1740
SL_1180	0.841	6.37	170.600	1.687	0.012	0.3690	0.0780	0.3490	75.0000	14.3510	0.0540	0.1740
SL_1213	57.891	22.05	8573.900	2.545	0.012	0.4430	0.0780	0.3780	9.1500	13.4330	0.1080	0.1940
SL_1248	15.85	11.27	2347.500	3.251	0.012	0.4780	0.0780	0.3950	34.8750	12.6230	0.1490	0.2130
SL_1250	9.245	14.21	1733.200	2.078	0.012	0.3010	0.0780	0.3210	35.9250	14.3510	0.0540	0.1740
SL_1265	1.313	28.98	255.900	3.151	0.012	0.3350	0.0780	0.3350	0.0000	14.3510	0.0540	0.1740
SL_1275	3.757	30.24	556.400	1.613	0.012	0.4120	0.0780	0.3670	14.9250	14.3510	0.0540	0.1740
SL_1281	0.564	20.79	198.900	3.449	0.012	0.2550	0.0780	0.3020	0.0000	14.3510	0.0540	0.1740
SL_1291	24.711	3.78	3659.800	3.068	0.012	0.4680	0.0780	0.3910	38.2500	13.1490	0.1220	0.2010
SL_1303	2.312	17.15	342.400	3.852	0.012	0.4500	0.0780	0.3820	31.1250	11.3000	0.2300	0.2420
SL_1304	8.657	32.41	1473.700	1.263	0.012	0.3390	0.0780	0.3360	15.6000	14.2430	0.0540	0.1770
SL_1317	3.54	19.88	524.300	2.213	0.012	0.3870	0.0780	0.3570	45.3750	10.8810	0.2430	0.2510
SL_1325	1.13	24.85	269.900	1.681	0.012	0.3350	0.0780	0.3350	37.7250	12.2180	0.1760	0.2210
SL_1343	8.446	14.07	1421.500	2.188	0.012	0.3970	0.0780	0.3600	64.5000	12.7440	0.1490	0.2110
SL_1393	0.503	44.03	219.100	3.132	0.012	0.3440	0.0780	0.3390	0.0000	9.0320	0.3510	0.2930
SL_1415	86.31	34.23	12782.800	2.215	0.012	0.3970	0.0780	0.3600	7.6500	6.2910	0.1620	0.1540
SL_1443	1.11	15.26	238.200	1.142	0.012	0.3850	0.0780	0.3560	74.3250	9.0320	0.3510	0.2930
SL_1450	0.129	9.94	36.800	0.833	0.012	0.4910	0.0780	0.4000	9.0000	9.0320	0.3510	0.2930
SL_1455	7.236	11.41	1152.300	3.820	0.012	0.4100	0.0780	0.3670	36.4500	9.0320	0.3510	0.2930
SL_1469	1.266	10.57	398.900	2.324	0.012	0.3110	0.0780	0.3250	0.3000	9.0320	0.3510	0.2930
SL_1486	0.577	66.64	275.700	2.594	0.012	0.2030	0.0780	0.2800	0.0000	9.0320	0.3510	0.2930
SL_1498	1.802	56.7	417.000	2.135	0.012	0.2200	0.0780	0.2870	0.0000	11.0300	0.2430	0.2480
SL_1518	3.365	14.07	524.600	3.787	0.012	0.3630	0.0780	0.3470	30.6000	12.3390	0.1620	0.2190
SL_1536	8.601	26.88	1273.800	3.426	0.012	0.2940	0.0780	0.3180	20.9250	13.7300	0.0950	0.1880
SL_1547	5.089	21.7	837.500	3.131	0.012	0.4400	0.0780	0.3790	24.2250	10.1120	0.2970	0.2690
SL_1576	14.75	20.51	2184.500	3.816	0.012	0.3940	0.0780	0.3600	33.8250	14.3240	0.0540	0.1740
SL_1586	0.68	28.21	214.300	2.858	0.012	0.3810	0.0780	0.3540	1.5750	12.0560	0.1760	0.2250
SL_1590	3.697	18.41	622.200	3.487	0.012	0.3190	0.0780	0.3280	40.5750	13.8780	0.0810	0.1850
SL_1601	13.409	16.73	1985.900	2.751	0.012	0.3830	0.0780	0.3540	36.0000	14.3510	0.0540	0.1740
SL_1617	11.546	19.18	1710.000	3.645	0.012	0.3200	0.0780	0.3290	20.4000	14.3510	0.0540	0.1740
SL_192	12.501	6.16	2057.200	1.955	0.012	0.3040	0.0780	0.3220	0.0000	11.6370	0.2030	0.2350
SL_324	5.202	4.97	811.000	3.870	0.012	0.4350	0.0780	0.3770	58.0500	10.0710	0.2970	0.2700
SL_4469	29.708	28.84	4399.900	2.031	0.012	0.4120	0.0780	0.3670	15.0750	9.0990	0.0950	0.1470
SL_5000	0.975	29.12	187.500	1.355	0.012	0.3130	0.0780	0.3260	28.2750	9.0320	0.3510	0.2930
SL_5009	2.896	25.34	670.200	1.008	0.012	0.4410	0.0780	0.3790	28.8750	9.0320	0.3510	0.2930
SL_5024	2.409	26.6	463.400	2.117	0.012	0.3510	0.0780	0.3420	7.5000	10.6110	0.2570	0.2580
SL_5028	12.544	12.88	2111.200	3.296	0.012	0.4040	0.0780	0.3640	41.7750	9.0320	0.3510	0.2930
SL_5032	7.431	9.17	1100.500	5.362	0.012	0.4360	0.0780	0.3770	47.8500	9.0320	0.3510	0.2930
SL_5033	5	12.39	740.500	3.806	0.012	0.3970	0.0780	0.3610	48.8250	10.9620	0.2430	0.2500
SL_5040	0.771	18.13	175.700	3.563	0.012	0.3920	0.0780	0.3580	14.5500	9.0320	0.3510	0.2930
SL_5045	2.476	22.54	407.500	2.030	0.012	0.3150	0.0780	0.3260	30.3750	9.0320	0.3510	0.2930
SL_5046	1.005	21.35	232.600	0.812	0.012	0.4130	0.0780	0.3670	22.2750	9.0320	0.3510	0.2930
SL_5049	6.111	16.59	1064.800	2.219	0.012	0.4270	0.0780	0.3720	43.8000	9.0320	0.3510	0.2930
SL_5074	5.423	22.19	1070.900	2.927	0.012	0.3930	0.0780	0.3580	25.5750	13.8110	0.0810	0.1860
SL_5081	14.44	21	2970.300	2.229	0.012	0.3430	0.0780	0.3370	30.1500	9.4640	0.3240	0.2840
SL_5127	9.251	23.8	1712.600	1.757	0.012	0.3460	0.0780	0.3390	25.8750	11.8940	0.1760	0.2210
SL_5129	10.959	12.25	1764.200	3.017	0.012	0.4060	0.0780	0.3640	45.6750	12.9740	0.1350	0.2050

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
SL_5143	10.445	21.07	1798.800	1.320	0.012	0.3080	0.0780	0.3230	32.7750	14.3510	0.0540	0.1740
SL_5159	2.565	5.25	399.900	3.158	0.012	0.4630	0.0780	0.3880	54.4500	12.3120	0.1620	0.2200
SL_5198	7.959	19.81	1324.400	2.734	0.012	0.3960	0.0780	0.3600	32.4750	14.0270	0.0680	0.1810
SL_5213	6.506	27.16	963.600	2.091	0.012	0.3350	0.0780	0.3350	35.9250	14.0000	0.0680	0.1820
SL_5231	4.578	17.92	678.000	3.057	0.012	0.4730	0.0780	0.3920	36.0000	14.3510	0.0540	0.1740
SL_5237	2.749	22.05	462.700	2.747	0.012	0.4050	0.0780	0.3640	34.2000	14.3510	0.0540	0.1740
SL_5250	5.336	17.22	790.300	2.972	0.012	0.4080	0.0780	0.3650	35.8500	14.3510	0.0540	0.1740
SL_5254	13.016	18.34	1927.700	2.684	0.012	0.4560	0.0780	0.3850	34.7250	14.3510	0.0540	0.1740
SL_5257	2.21	22.47	327.300	1.676	0.012	0.3870	0.0780	0.3570	12.9750	14.3510	0.0540	0.1740
SL_5261	7.132	17.64	1056.300	2.871	0.012	0.4640	0.0780	0.3890	38.6250	14.3510	0.0540	0.1740
SL_5262	14.284	16.94	2115.500	1.756	0.012	0.4590	0.0780	0.3860	37.5750	14.3370	0.0540	0.1740
SL_5264	2.135	28.77	385.600	2.148	0.012	0.4580	0.0780	0.3850	8.1000	14.3510	0.0540	0.1740
SL_5272	5.628	24.64	1016.500	2.750	0.012	0.4320	0.0780	0.3750	27.1500	13.5410	0.0950	0.1930
SL_5273	3.977	16.52	654.500	3.749	0.012	0.3580	0.0780	0.3440	45.8250	14.0270	0.0680	0.1810
SL_5283	0.969	11.13	172.900	3.973	0.012	0.4670	0.0780	0.3890	75.0000	10.6110	0.2570	0.2580
SL_5333	3.786	20.44	560.700	1.416	0.012	0.3330	0.0780	0.3350	34.2000	14.3510	0.0540	0.1740
SL_5340	5.409	6.3	843.300	3.407	0.012	0.5240	0.0780	0.4130	57.8250	12.9470	0.1350	0.2050
SL_5342	1.654	22.75	350.000	2.231	0.012	0.3970	0.0780	0.3610	25.3500	14.0000	0.0680	0.1820
SL_5412	7.643	10.15	1271.900	3.887	0.012	0.4670	0.0780	0.3890	48.3000	13.3920	0.1080	0.1960
SL_5417	4.424	20.23	963.600	2.679	0.012	0.3630	0.0780	0.3470	35.0250	14.3510	0.0540	0.1740
SL_5430	5.682	20.44	841.500	3.161	0.012	0.4200	0.0780	0.3710	20.8500	9.0320	0.3510	0.2930
SL_5431	0.768	12.32	142.200	1.637	0.012	0.3750	0.0780	0.3510	75.0000	9.0320	0.3510	0.2930
SL_5438	3.526	11.69	522.200	3.206	0.012	0.4500	0.0780	0.3820	38.1750	9.0320	0.3510	0.2930
SL_5448	0.256	60.76	94.800	0.413	0.012	0.2170	0.0780	0.2870	0.0000	9.0320	0.3510	0.2930
SL_5480	4.435	7.35	656.800	3.080	0.012	0.3850	0.0780	0.3560	70.3500	11.2050	0.0810	0.1580
SL_5508	8.114	19.67	1767.200	2.936	0.012	0.3660	0.0780	0.3470	35.7750	9.4230	0.3240	0.2840
SL_5521	3.291	7.28	487.400	3.843	0.012	0.4200	0.0780	0.3700	64.4250	14.3510	0.0540	0.1740
SL_5538	2.875	13.86	425.800	2.175	0.012	0.4160	0.0780	0.3680	68.2500	14.3510	0.0540	0.1740
SL_5549	15.708	0.28	2326.400	3.905	0.012	0.5180	0.0780	0.4120	0.0000	14.1210	0.0680	0.1800
SL_5601	0.21	34.3	94.200	0.704	0.012	0.3020	0.0780	0.3210	0.1500	9.0320	0.3510	0.2930
SL_5605	5.395	7.98	799.000	3.941	0.012	0.4640	0.0780	0.3880	33.2250	13.5810	0.0950	0.1920
SL_5608	0.304	9.45	93.800	1.954	0.012	0.4810	0.0780	0.3950	57.0750	9.8960	0.2970	0.2740
SL_5800	6.186	17.08	916.200	3.399	0.012	0.4780	0.0780	0.3930	14.0250	14.2830	0.0540	0.1760
SL_5805	6.946	18.41	1028.700	5.415	0.012	0.4540	0.0780	0.3840	12.3750	11.5430	0.2160	0.2380
SL_5816	4.442	53.2	657.900	0.443	0.012	0.2890	0.0780	0.3160	8.4750	9.0320	0.3510	0.2930
SL_5838	4.827	14.14	714.900	3.279	0.012	0.4440	0.0780	0.3810	40.6500	13.0550	0.1220	0.2040
SL_600	3.692	27.86	581.700	2.234	0.012	0.4020	0.0780	0.3630	10.8000	14.3510	0.0540	0.1740
SL_6034	6.492	13.51	1187.000	2.031	0.012	0.3830	0.0780	0.3540	39.8250	10.0580	0.2970	0.2700
SL_800125	7.514	16.17	1171.400	3.611	0.012	0.3920	0.0780	0.3580	33.7500	11.5160	0.2160	0.2380
SL_800131	3.664	10.5	616.700	3.547	0.012	0.2900	0.0780	0.3160	33.0000	10.9760	0.2430	0.2500
SL_800149	4.506	7.42	667.400	4.241	0.012	0.3460	0.0780	0.3390	75.0000	13.9320	0.0810	0.1840
SL_99139	11.914	4.34	1764.500	2.929	0.012	0.4350	0.0780	0.3770	73.5000	7.6820	0.0950	0.1300
SL_999062	5.014	20.51	894.700	3.534	0.012	0.4660	0.0780	0.3890	27.0000	14.3510	0.0540	0.1740
SL_999063	2.208	17.5	408.800	2.087	0.012	0.4000	0.0780	0.3610	31.9500	12.2310	0.1760	0.2210
SL_999064	1.235	25.97	277.100	2.351	0.012	0.3790	0.0780	0.3530	19.9500	9.0990	0.3510	0.2920
SL_999065	0.799	25.41	176.600	2.435	0.012	0.2840	0.0780	0.3140	10.3500	14.0400	0.0680	0.1810
SL_999066	34.036	2.8	5040.900	3.227	0.012	0.5090	0.0780	0.4070	38.8500	13.7160	0.0950	0.1890
SL_999067	4.838	8.4	716.500	2.245	0.012	0.3480	0.0780	0.3400	59.5500	14.3510	0.0540	0.1740
SL_999068	4.523	6.02	669.900	3.008	0.012	0.3360	0.0780	0.3360	25.2000	13.0550	0.1220	0.2040

Drainage Master Plan - Windermere Study Area

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Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
SL_999069	1.681	17.08	248.900	2.615	0.012	0.3350	0.0780	0.3350	38.7000	12.2990	0.1760	0.2200
SL_999070	8.418	11.83	1385.300	2.385	0.012	0.3510	0.0780	0.3420	43.9500	13.9860	0.0810	0.1820
SL_999071	3.958	16.1	586.200	3.807	0.012	0.4000	0.0780	0.3610	44.1000	12.9200	0.1350	0.2070
SL_999072	5.363	24.57	794.300	2.690	0.012	0.3970	0.0780	0.3610	20.4750	13.6080	0.0950	0.1900
SL_999073	15.158	9.66	2245.000	3.392	0.012	0.4010	0.0780	0.3630	51.9000	10.8810	0.0950	0.1650
SL_999074	2.327	15.54	344.600	2.762	0.012	0.4910	0.0780	0.4000	60.6750	14.3510	0.0540	0.1740
SL_999075	2.89	10.08	428.000	3.145	0.012	0.4020	0.0780	0.3630	70.8750	12.4070	0.0410	0.1510
SL_999078	10.072	17.43	1676.100	3.180	0.012	0.4040	0.0780	0.3640	38.4000	13.7160	0.0950	0.1880
SL_999079	4.88	12.32	803.000	3.674	0.012	0.4210	0.0780	0.3710	27.3000	13.0010	0.1350	0.2040
SL_999080	3.286	7.42	512.300	2.963	0.012	0.3930	0.0780	0.3580	75.0000	9.0320	0.3510	0.2930
SL_999082	9.821	4.62	1454.500	2.576	0.012	0.4510	0.0780	0.3820	16.8750	13.8110	0.0810	0.1860
SL_999083	3.877	3.5	574.200	3.200	0.012	0.4320	0.0780	0.3750	0.0000	14.3510	0.0540	0.1740
SL_999085	3.654	0	845.600	3.480	0.012	0.4350	0.0780	0.3770	0.0000	14.3510	0.0540	0.1740
SL_999087	32.727	5.81	4847.000	2.894	0.012	0.3940	0.0780	0.3600	32.5500	14.3510	0.0540	0.1740
SL_999088	8.971	2.59	1328.700	4.478	0.012	0.4830	0.0780	0.3960	27.9750	14.3510	0.0540	0.1740
SL_999089	2.051	1.33	319.700	4.281	0.012	0.4560	0.0780	0.3850	75.0000	14.0540	0.0680	0.1810
SL_999091	10.754	15.19	1592.700	2.987	0.012	0.3440	0.0780	0.3390	39.8250	14.3510	0.0540	0.1740
SL_999092	2.858	32.34	622.500	1.815	0.012	0.2850	0.0780	0.3140	8.7750	14.3510	0.0540	0.1740
SL_999093	12.774	13.93	2149.900	2.557	0.012	0.3600	0.0780	0.3460	45.0750	12.4340	0.1620	0.2170
SL_999094	3.25	5.95	587.000	4.430	0.012	0.3890	0.0780	0.3570	44.1000	9.0320	0.3510	0.2930
SL_999095	12.163	19.46	2280.200	2.252	0.012	0.3820	0.0780	0.3540	32.9250	9.0320	0.3510	0.2930
SL_999096	1.744	14.14	353.800	1.983	0.012	0.4360	0.0780	0.3770	56.4750	9.0320	0.3510	0.2930
SL_999097	7.422	11.83	1235.100	2.568	0.012	0.4190	0.0780	0.3700	54.8250	11.0160	0.2430	0.2480
SL_999098	8.471	8.26	1254.600	2.595	0.012	0.4050	0.0780	0.3640	47.5500	13.6760	0.0950	0.1890
SL_999099	3.15	50.82	466.500	1.289	0.012	0.2850	0.0780	0.3140	15.5250	14.3510	0.0540	0.1740
SL_999100	4.529	26.88	871.100	1.852	0.012	0.2920	0.0780	0.3160	27.0750	13.4060	0.1080	0.1960
SL_999101	9.434	25.06	1397.200	2.608	0.012	0.3920	0.0780	0.3580	26.8500	14.3510	0.0540	0.1740
SL_999102	6.884	18.48	1274.400	2.630	0.012	0.3980	0.0780	0.3610	18.7500	14.3370	0.0540	0.1740
SL_999104	15.853	17.5	3010.100	2.408	0.012	0.3360	0.0780	0.3360	28.5000	14.0270	0.0680	0.1810
SL_999115	5.541	16.94	1302.600	2.759	0.012	0.3500	0.0780	0.3400	12.9000	9.0320	0.3510	0.2930
SL_999117	2.043	3.43	360.200	1.818	0.012	0.4280	0.0780	0.3740	45.1500	9.0320	0.3510	0.2930
SL_999120	4.033	56.07	765.800	2.207	0.012	0.3510	0.0780	0.3420	15.8250	11.7180	0.2030	0.2340
SL_999121	1.076	6.86	159.400	4.617	0.012	0.4170	0.0780	0.3700	75.0000	12.4470	0.1620	0.2170
SL_999122	7.895	13.02	1375.600	3.184	0.012	0.3960	0.0780	0.3600	40.2000	11.1240	0.2300	0.2460
SL_999123	0.295	69.3	115.000	0.484	0.012	0.2030	0.0780	0.2800	0.0000	9.0320	0.3510	0.2930
SL_999124	6.287	12.81	1293.200	3.352	0.012	0.4400	0.0780	0.3780	37.5750	10.1390	0.2840	0.2690
SL_999125	0.824	52.01	406.800	1.793	0.012	0.2030	0.0780	0.2800	0.0000	9.0320	0.3510	0.2930
SL_999128	132.569	6.37	19634.000	1.418	0.012	0.3790	0.0780	0.3530	3.8250	9.1670	0.3380	0.2900
SL_999133	29.71	0	4400.200	0.535	0.012	0.2840	0.0780	0.3140	0.0000	9.0320	0.3510	0.2930
SL_999134	27.584	0	4085.300	0.433	0.012	0.2240	0.0780	0.2880	0.0000	9.0320	0.3510	0.2930
SL_999166	2.696	4.48	438.800	2.848	0.012	0.3430	0.0780	0.3370	54.9750	9.6390	0.3110	0.2780
SL_S1017	22.644	17.01	3530.200	1.829	0.012	0.3710	0.0780	0.3500	35.1000	12.2180	0.1760	0.2210
SL_SC1132	0.847	21.21	149.300	1.785	0.012	0.4170	0.0780	0.3680	7.5750	14.3510	0.0540	0.1740
SL_SC1144	2.016	16.52	359.700	1.747	0.012	0.3050	0.0780	0.3220	3.7500	14.3510	0.0540	0.1740
SL_SC1321	0.789	17.29	155.800	1.858	0.012	0.3890	0.0780	0.3570	31.7250	9.0320	0.3510	0.2930
SL_SC1609	4.068	28	692.500	2.214	0.012	0.3660	0.0780	0.3470	7.8750	12.0560	0.1760	0.2250
W_101213	4.275	23.8	673.600	2.530	0.012	0.2850	0.0780	0.3140	28.7250	9.4770	0.3240	0.2840
W_101216	1.645	39.83	293.500	1.431	0.012	0.3470	0.0780	0.3400	29.6250	9.1800	0.3380	0.2890
W_101219	0.867	38.15	183.400	0.946	0.012	0.2480	0.0780	0.3000	19.9500	9.0320	0.3510	0.2930

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
W_101396	0.78	41.58	210.100	0.593	0.012	0.4210	0.0780	0.3710	0.0000	9.0320	0.3510	0.2930
W_101524	12.025	40.88	2312.900	0.693	0.012	0.2390	0.0780	0.2950	17.9250	9.0320	0.3510	0.2930
W_101740	11.769	22.4	1743.000	3.709	0.012	0.3420	0.0780	0.3370	9.3750	13.5680	0.0950	0.1920
W_101891	13.002	44.66	1925.700	0.850	0.012	0.2920	0.0780	0.3160	15.2250	7.3710	0.2840	0.2390
W_101908	1.545	69.16	431.700	0.415	0.012	0.3660	0.0780	0.3490	0.0000	9.0320	0.3510	0.2930
W_101910	1.8	47.25	430.000	0.468	0.012	0.2790	0.0780	0.3120	0.8250	9.0320	0.3510	0.2930
W_101912	19.528	14.63	3109.900	3.326	0.012	0.3590	0.0780	0.3440	26.4000	12.8120	0.1350	0.2090
W_101918	1.154	22.47	251.300	0.633	0.012	0.2740	0.0780	0.3090	75.0000	9.0320	0.3510	0.2930
W_101924	1.295	26.6	299.700	1.196	0.012	0.2730	0.0780	0.3090	44.1750	9.0320	0.3510	0.2930
W_101933	13.433	20.72	2340.600	1.844	0.012	0.3230	0.0780	0.3300	24.6750	10.9490	0.2430	0.2500
W_101935	4.686	45.92	1285.200	2.387	0.012	0.3460	0.0780	0.3390	2.1000	10.5980	0.2700	0.2580
W_101938	17.361	1.47	2571.300	4.583	0.012	0.5060	0.0780	0.4060	51.1500	14.3240	0.0540	0.1740
W_101942	5.332	14.28	789.700	4.224	0.012	0.4170	0.0780	0.3680	40.4250	12.7710	0.1490	0.2090
W_101945	1.681	4.41	248.900	5.477	0.012	0.5020	0.0780	0.4050	42.3750	9.7340	0.3110	0.2770
W_101948	7.007	21	1037.700	3.149	0.012	0.3750	0.0780	0.3510	22.2000	13.5680	0.0950	0.1920
W_101952	9.184	22.12	1581.600	1.357	0.012	0.3170	0.0780	0.3280	33.0750	9.2610	0.3380	0.2880
W_101954	1.133	40.04	305.100	1.052	0.012	0.2210	0.0780	0.2870	1.8750	9.2480	0.3380	0.2880
W_101956	0.367	63.42	151.000	0.445	0.012	0.2050	0.0780	0.2810	0.0000	9.0320	0.3510	0.2930
W_102062	1.485	25.55	271.500	3.060	0.012	0.2710	0.0780	0.3080	3.9000	12.1370	0.1760	0.2240
W_102063	12.247	8.33	1813.800	5.018	0.012	0.4940	0.0780	0.4000	31.8000	14.0540	0.0680	0.1810
W_102070	13.814	12.11	2045.900	4.307	0.012	0.4660	0.0780	0.3890	40.6500	13.2980	0.1080	0.1970
W_102073	0.898	46.62	187.300	0.495	0.012	0.3160	0.0780	0.3280	0.0000	9.0590	0.3510	0.2930
W_102078	11.641	14.84	2535.400	4.250	0.012	0.4630	0.0780	0.3880	34.5750	12.8660	0.1350	0.2080
W_102082	4.265	28.91	842.200	3.436	0.012	0.4640	0.0780	0.3880	16.4250	14.0810	0.0680	0.1800
W_102094	9.814	11.83	1453.500	5.091	0.012	0.4700	0.0780	0.3910	30.2250	13.7840	0.0810	0.1860
W_102095	2.006	27.58	297.100	4.262	0.012	0.4830	0.0780	0.3960	14.1000	13.0550	0.1220	0.2030
W_102121	65.8	7.84	9745.300	4.333	0.012	0.4910	0.0780	0.4000	27.9000	13.6620	0.0950	0.1890
W_102124	3.037	2.31	642.600	4.992	0.012	0.4240	0.0780	0.3720	0.0000	14.3510	0.0540	0.1740
W_102165	1.182	2.8	175.100	4.105	0.012	0.5400	0.0780	0.4200	0.0000	14.3510	0.0540	0.1740
W_102166	3.833	15.96	709.600	2.413	0.012	0.4140	0.0780	0.3680	51.7500	11.9880	0.1890	0.2270
W_102171	2.961	2.38	562.200	3.578	0.012	0.5330	0.0780	0.4170	17.2500	14.3510	0.0540	0.1740
W_102187	17.06	12.11	3158.300	3.506	0.012	0.4740	0.0780	0.3930	17.1000	13.9050	0.0810	0.1840
W_102213	4.29	20.86	784.400	4.271	0.012	0.4630	0.0780	0.3880	0.0000	13.1090	0.1220	0.2030
W_102214	1.444	61.95	362.500	1.406	0.012	0.2050	0.0780	0.2810	0.0000	12.4880	0.1620	0.2160
W_102216	1.34	23.17	275.600	1.868	0.012	0.3620	0.0780	0.3460	23.9250	10.8810	0.2430	0.2510
W_102306	6.577	22.54	1265.000	3.499	0.012	0.4290	0.0780	0.3740	19.8750	13.6620	0.0950	0.1890
W_102577	9.138	22.96	2020.000	3.161	0.012	0.4270	0.0780	0.3720	25.8000	14.3510	0.0540	0.1740
W_102588	0.322	69.65	159.000	2.108	0.012	0.2030	0.0780	0.2800	0.0000	14.3510	0.0540	0.1740
W_102853	114.714	21.14	16989.600	3.638	0.012	0.4670	0.0780	0.3890	10.5000	11.7860	0.0410	0.1440
W_102873	0.89	25.06	239.700	4.754	0.012	0.5020	0.0780	0.4050	14.6250	13.5000	0.1080	0.1930
W_102876	4.152	12.6	614.900	3.220	0.012	0.4560	0.0780	0.3850	48.8250	13.7570	0.0810	0.1880
W_102880	0.855	30.73	230.200	4.247	0.012	0.3830	0.0780	0.3560	13.8000	14.3510	0.0540	0.1740
W_102939	4.088	11.55	605.400	3.044	0.012	0.4830	0.0780	0.3960	32.3250	14.3510	0.0540	0.1740
W_102973	1.942	13.93	410.900	3.845	0.012	0.4770	0.0780	0.3930	11.7000	13.1090	0.1220	0.2030
W_102990.1	8.524	5.6	1262.500	4.118	0.012	0.4850	0.0780	0.3960	64.8750	14.3510	0.0540	0.1740
W_102990.2	4.976	9.66	737.000	3.439	0.012	0.4950	0.0780	0.4020	53.4750	11.9070	0.1890	0.2280
W_150090	23.94	5.74	3545.600	4.520	0.012	0.4660	0.0780	0.3890	28.2000	13.5410	0.0950	0.1920
W_150130	4.546	4.76	673.300	4.214	0.012	0.3870	0.0780	0.3560	33.4500	10.8950	0.2430	0.2510
W_150150	34.417	10.5	5663.700	3.579	0.012	0.4470	0.0780	0.3810	33.1500	13.3110	0.1080	0.1970

Drainage Master Plan - Windermere Study Area

Table 2.1

Sub-Basin Hydrologic Parameter Table

Subcatchment Name	Area (acres)	Subcatch. Imperviousness (%)	Subcatchment Width (ft)	Subcatchment Slope (%)	Manning's N for Imperv. Portion	Manning's N for Pervious Portion	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)	% of Imperv. Part w/o Dep. Stor.	Capillary Suction Head (in)	Saturated Hydraulic Conductivity (in/hr)	Initial Soil Moisture Deficit (Ratio)
W_150177	4.354	6.86	644.800	5.852	0.012	0.4410	0.0780	0.3790	60.8250	10.2870	0.2840	0.2650
W_150202	13.294	6.16	1968.900	4.121	0.012	0.5130	0.0780	0.4090	22.5000	13.6890	0.0950	0.1890
W_150234	58.562	4.41	8673.300	4.541	0.012	0.4580	0.0780	0.3860	40.6500	13.4330	0.1080	0.1940
W_5745	50.044	6.23	7411.700	4.772	0.012	0.4460	0.0780	0.3810	32.1000	13.3250	0.1080	0.1970
W_5803	2.671	1.05	395.600	6.230	0.012	0.5270	0.0780	0.4140	0.0000	10.9220	0.2430	0.2510
W_800194	7.046	35.49	1043.500	3.786	0.012	0.5140	0.0780	0.4090	21.1500	14.3510	0.0540	0.1740
W_999000	1.379	9.1	314.200	1.959	0.012	0.4270	0.0780	0.3720	68.5500	13.6080	0.0950	0.1900
W_999002	2.004	4.55	296.800	4.993	0.012	0.4190	0.0780	0.3700	35.3250	10.5840	0.2700	0.2580
W_999005	1.023	29.33	170.200	4.625	0.012	0.4400	0.0780	0.3780	0.0000	14.3510	0.0540	0.1740
W_999010	0.524	67.2	149.300	2.487	0.012	0.2130	0.0780	0.2840	0.0000	14.3510	0.0540	0.1740
W_999012	27.369	37.1	4053.400	3.900	0.012	0.3830	0.0780	0.3540	5.1750	14.3510	0.0540	0.1740
W_999013	19.909	11.06	2948.600	5.225	0.012	0.5170	0.0780	0.4100	27.9750	14.3510	0.0540	0.1740
W_999014	18.663	1.33	2764.100	6.218	0.012	0.5050	0.0780	0.4060	7.2000	13.5680	0.0950	0.1920
W_999015	6.659	0.14	986.200	4.663	0.012	0.5020	0.0780	0.4050	0.0000	9.6530	0.3110	0.2790
W_999017	11.1	4.55	1644.000	3.165	0.012	0.4620	0.0780	0.3880	38.0250	9.0320	0.3510	0.2930
W_999019	3.763	2.1	679.700	1.722	0.012	0.3060	0.0780	0.3230	0.0000	9.0320	0.3510	0.2930
W_999022	72.439	21.98	10728.500	0.800	0.012	0.3830	0.0780	0.3560	6.2250	7.0200	0.2160	0.1980
W_999025	6.886	0	1019.800	0.868	0.012	0.4230	0.0780	0.3710	0.0000	9.0320	0.3510	0.2930
W_999028	1.63	16.66	241.400	0.707	0.012	0.2590	0.0780	0.3040	18.0000	9.0320	0.3510	0.2930
W_999029	7.357	19.18	1089.600	1.096	0.012	0.2730	0.0780	0.3090	30.4500	9.1940	0.3380	0.2890
W_999142	0.852	16.52	126.200	3.124	0.012	0.4050	0.0780	0.3640	50.0250	9.0590	0.3510	0.2930
W_999146	11.331	2.17	1678.200	4.286	0.012	0.4120	0.0780	0.3670	49.2000	14.3240	0.0540	0.1740
W_999153	10.672	2.66	1580.600	4.140	0.012	0.4660	0.0780	0.3890	46.7250	14.3510	0.0540	0.1740
W_999157	3.34	8.61	494.700	2.801	0.012	0.5000	0.0780	0.4030	34.1250	9.0320	0.3510	0.2930
W_999158	9.753	23.38	1444.500	2.090	0.012	0.4370	0.0780	0.3770	19.5750	9.5310	0.2840	0.2590
W_999163	6.645	39.76	984.200	2.229	0.012	0.4230	0.0780	0.3710	23.4000	14.3510	0.0540	0.1740

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
JP_100003	1.843	6.69	0.26	0.217
JP_100028	6.223	6.69	0.26	0.217
JP_100046	2.569	9.07	0.13	0.164
JP_100050	0.151	6.69	0.26	0.217
JP_100055	0.911	6.71	0.26	0.217
JP_100066	3.703	10.06	0.07	0.142
JP_100074	4.632	7.81	0.2	0.192
JP_100085	10.476	8.13	0.18	0.185
JP_100087	5.676	7.06	0.24	0.209
JP_100154	0.765	6.77	0.26	0.215
JP_100183	1.4	10.01	0.07	0.143
JP_100239	1.406	7.63	0.21	0.196
JP_100279	1.567	9.54	0.1	0.153
JP_100283	1.392	8.77	0.14	0.171
JP_100320	1.969	9.88	0.08	0.146
JP_100329	2.382	9.94	0.08	0.144
JP_100442	4.01	6.69	0.26	0.217
JP_100501	1.104	7.17	0.23	0.206
JP_100518	1.262	6.69	0.26	0.217
JP_100520	2.124	7.73	0.2	0.194
JP_100524	1.138	6.69	0.26	0.217
JP_100528	0.97	10.33	0.06	0.136
JP_100533	2.716	9.68	0.09	0.15
JP_100534	5.125	10.36	0.05	0.135
JP_100537	0.862	6.69	0.26	0.217
JP_100538	23.67	10.52	0.05	0.131
JP_100541	3.649	6.72	0.26	0.216
JP_100566	1.555	8.85	0.14	0.169
JP_100574	0.521	6.69	0.26	0.217
JP_100578	6.886	7.07	0.24	0.209
JP_100580	14.659	10.41	0.05	0.134
JP_100581	0.991	10.63	0.04	0.129
JP_100584	0.674	10.63	0.04	0.129
JP_100585	4.665	10.49	0.05	0.132
JP_100592	0.828	6.69	0.26	0.217
JP_100593	20.173	6.69	0.26	0.217
JP_100600	0.575	7.95	0.19	0.189
JP_1007	3.545	9.73	0.09	0.149
JP_100794	2.382	10.63	0.04	0.129
JP_100845	30.681	9.68	0.09	0.15
JP_100848	0.508	6.69	0.26	0.217
JP_100849	9.192	6.84	0.25	0.214
JP_100851	81.091	10.13	0.07	0.14
JP_100853	1.449	7.54	0.21	0.198
JP_100863	5.809	8.32	0.17	0.181
JP_100866	8.675	7.01	0.24	0.21
JP_1009	12.361	6.7	0.26	0.217
JP_101094	2.494	8.8	0.14	0.17
JP_101100	1.239	6.81	0.25	0.214
JP_101102	8.809	10.61	0.04	0.13
JP_101104	6.717	7.54	0.21	0.198
JP_103047	16.99	6.69	0.26	0.217
JP_103078	10.588	7.23	0.23	0.205
JP_103095	13.324	6.69	0.26	0.217
JP_103125	45.741	6.69	0.26	0.217

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
JP_100003	9.032	35%	0.351	35%	0.293	35%
JP_100028	9.032	35%	0.351	35%	0.293	35%
JP_100046	12.245	35%	0.176	35%	0.221	35%
JP_100050	9.032	35%	0.351	35%	0.293	35%
JP_100055	9.059	35%	0.351	35%	0.293	35%
JP_100066	13.581	35%	0.095	36%	0.192	35%
JP_100074	10.544	35%	0.270	35%	0.259	35%
JP_100085	10.976	35%	0.243	35%	0.250	35%
JP_100087	9.531	35%	0.324	35%	0.282	35%
JP_100154	9.140	35%	0.351	35%	0.290	35%
JP_100183	13.514	35%	0.095	36%	0.193	35%
JP_100239	10.301	35%	0.284	35%	0.265	35%
JP_100279	12.879	35%	0.135	35%	0.207	35%
JP_100283	11.840	35%	0.189	35%	0.231	35%
JP_100320	13.338	35%	0.108	35%	0.197	35%
JP_100329	13.419	35%	0.108	35%	0.194	35%
JP_100442	9.032	35%	0.351	35%	0.293	35%
JP_100501	9.680	35%	0.311	35%	0.278	35%
JP_100518	9.032	35%	0.351	35%	0.293	35%
JP_100520	10.436	35%	0.270	35%	0.262	35%
JP_100524	9.032	35%	0.351	35%	0.293	35%
JP_100528	13.946	35%	0.081	35%	0.184	35%
JP_100533	13.068	35%	0.122	36%	0.203	35%
JP_100534	13.986	35%	0.068	36%	0.182	35%
JP_100537	9.032	35%	0.351	35%	0.293	35%
JP_100538	14.202	35%	0.068	36%	0.177	35%
JP_100541	9.072	35%	0.351	35%	0.292	35%
JP_100566	11.948	35%	0.189	35%	0.228	35%
JP_100574	9.032	35%	0.351	35%	0.293	35%
JP_100578	9.545	35%	0.324	35%	0.282	35%
JP_100580	14.054	35%	0.068	36%	0.181	35%
JP_100581	14.351	35%	0.054	35%	0.174	35%
JP_100584	14.351	35%	0.054	35%	0.174	35%
JP_100585	14.162	35%	0.068	36%	0.178	35%
JP_100592	9.032	35%	0.351	35%	0.293	35%
JP_100593	9.032	35%	0.351	35%	0.293	35%
JP_100600	10.733	35%	0.257	35%	0.255	35%
JP_1007	13.136	35%	0.122	36%	0.201	35%
JP_100794	14.351	35%	0.054	35%	0.174	35%
JP_100845	13.068	35%	0.122	36%	0.203	35%
JP_100848	9.032	35%	0.351	35%	0.293	35%
JP_100849	9.234	35%	0.338	35%	0.289	35%
JP_100851	13.676	35%	0.095	36%	0.189	35%
JP_100853	10.179	35%	0.284	35%	0.267	35%
JP_100863	11.232	35%	0.230	35%	0.244	35%
JP_100866	9.464	35%	0.324	35%	0.284	35%
JP_1009	9.045	35%	0.351	35%	0.293	35%
JP_101094	11.880	35%	0.189	35%	0.230	35%
JP_101100	9.194	35%	0.338	35%	0.289	35%
JP_101102	14.324	35%	0.054	35%	0.176	35%
JP_101104	10.179	35%	0.284	35%	0.267	35%
JP_103047	9.032	35%	0.351	35%	0.293	35%
JP_103078	9.761	35%	0.311	35%	0.277	35%
JP_103095	9.032	35%	0.351	35%	0.293	35%
JP_103125	9.032	35%	0.351	35%	0.293	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
JP_100003	0.06	0.273
JP_100028	0.06	0.202
JP_100046	0.06	0.243
JP_100050	0.06	0.272
JP_100055	0.06	0.249
JP_100066	0.06	0.271
JP_100074	0.06	0.269
JP_100085	0.06	0.274
JP_100087	0.06	0.264
JP_100154	0.06	0.208
JP_100183	0.06	0.274
JP_100239	0.06	0.238
JP_100279	0.06	0.27
JP_100283	0.06	0.195
JP_100320	0.06	0.2
JP_100329	0.06	0.285
JP_100442	0.06	0.21
JP_100501	0.06	0.2
JP_100518	0.06	0.23
JP_100520	0.06	0.287
JP_100524	0.06	0.277
JP_100528	0.06	0.236
JP_100533	0.06	0.28
JP_100534	0.06	0.273
JP_100537	0.06	0
JP_100538	0.06	0.267
JP_100541	0.06	0.278
JP_100566	0.06	0.206
JP_100574	0.06	0.281
JP_100578	0.06	0.264
JP_100580	0.06	0.265
JP_100581	0.06	0.2
JP_100584	0.06	0.23
JP_100585	0.06	0.268
JP_100592	0.06	0.262
JP_100593	0.06	0.251
JP_100600	0.06	0.2
JP_1007	0.06	0.255
JP_100794	0.06	0.267
JP_100845	0.06	0.264
JP_100848	0.06	0.2
JP_100849	0.06	0.244
JP_100851	0.06	0.279
JP_100853	0.06	0.266
JP_100863	0.06	0.259
JP_100866	0.06	0.279
JP_1009	0.06	0.263
JP_101094	0.06	0.218
JP_101100	0.06	0.285
JP_101102	0.06	0.257
JP_101104	0.06	0.23
JP_103047	0.06	0.281
JP_103078	0.06	0.264
JP_103095	0.06	0.265
JP_103125	0.06	0.236

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
JP_100003	0.382	40%	0.078	30%
JP_100028	0.283	40%	0.078	30%
JP_100046	0.340	40%	0.078	30%
JP_100050	0.381	40%	0.078	30%
JP_100055	0.349	40%	0.078	30%
JP_100066	0.379	40%	0.078	30%
JP_100074	0.377	40%	0.078	30%
JP_100085	0.384	40%	0.078	30%
JP_100087	0.370	40%	0.078	30%
JP_100154	0.291	40%	0.078	30%
JP_100183	0.384	40%	0.078	30%
JP_100239	0.333	40%	0.078	30%
JP_100279	0.378	40%	0.078	30%
JP_100283	0.273	40%	0.078	30%
JP_100320	0.280	40%	0.078	30%
JP_100329	0.399	40%	0.078	30%
JP_100442	0.294	40%	0.078	30%
JP_100501	0.280	40%	0.078	30%
JP_100518	0.322	40%	0.078	30%
JP_100520	0.402	40%	0.078	30%
JP_100524	0.388	40%	0.078	30%
JP_100528	0.330	40%	0.078	30%
JP_100533	0.392	40%	0.078	30%
JP_100534	0.382	40%	0.078	30%
JP_100537	0.000	0%	0.078	30%
JP_100538	0.374	40%	0.078	30%
JP_100541	0.389	40%	0.078	30%
JP_100566	0.288	40%	0.078	30%
JP_100574	0.393	40%	0.078	30%
JP_100578	0.370	40%	0.078	30%
JP_100580	0.371	40%	0.078	30%
JP_100581	0.280	40%	0.078	30%
JP_100584	0.322	40%	0.078	30%
JP_100585	0.375	40%	0.078	30%
JP_100592	0.367	40%	0.078	30%
JP_100593	0.351	40%	0.078	30%
JP_100600	0.280	40%	0.078	30%
JP_1007	0.357	40%	0.078	30%
JP_100794	0.374	40%	0.078	30%
JP_100845	0.370	40%	0.078	30%
JP_100848	0.280	40%	0.078	30%
JP_100849	0.342	40%	0.078	30%
JP_100851	0.391	40%	0.078	30%
JP_100853	0.372	40%	0.078	30%
JP_100863	0.363	40%	0.078	30%
JP_100866	0.391	40%	0.078	30%
JP_1009	0.368	40%	0.078	30%
JP_101094	0.305	40%	0.078	30%
JP_101100	0.399	40%	0.078	30%
JP_101102	0.360	40%	0.078	30%
JP_101104	0.322	40%	0.078	30%
JP_103047	0.393			

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
JP_103145	2.146	6.69	0.26	0.217
JP_103168	1.5	8.04	0.18	0.187
JP_103174	5.927	7.75	0.2	0.193
JP_103179	9.764	7.66	0.21	0.195
JP_11104	12.162	8.61	0.15	0.174
JP_11170	21.598	8.25	0.17	0.182
JP_11185	12.973	6.69	0.26	0.217
JP_11191	25.439	8.36	0.17	0.18
JP_118	20.772	6.8	0.25	0.215
JP_150034	46.122	6.69	0.26	0.217
JP_200029	59.129	6.69	0.26	0.217
JP_2001	0.34	7.27	0.23	0.204
JP_2003	0.178	6.69	0.26	0.217
JP_2004	0.181	6.69	0.26	0.217
JP_2006	1.108	9.01	0.13	0.165
JP_2013	0.409	6.69	0.26	0.217
JP_2025	4.255	8.38	0.17	0.179
JP_2031	0.278	8.89	0.14	0.168
JP_2044	23.645	10.63	0.04	0.129
JP_2054	1.982	7.02	0.24	0.21
JP_2058	8.3	7.93	0.19	0.189
JP_2070	3.43	9.14	0.12	0.162
JP_2090	23.908	6.73	0.26	0.216
JP_279	7.793	6.69	0.26	0.217
JP_30028	2.862	6.69	0.26	0.217
JP_348	28.753	9.55	0.1	0.153
JP_354	10.85	6.69	0.26	0.217
JP_356	5	10.63	0.04	0.129
JP_357	0.11	6.69	0.26	0.217
JP_364	0.299	6.69	0.26	0.217
JP_373	0.808	7.19	0.23	0.206
JP_540	0.14	6.69	0.26	0.217
JP_542	0.679	6.69	0.26	0.217
JP_5829	13.761	9.69	0.09	0.15
JP_5834	0.847	6.69	0.26	0.217
JP_5837	0.414	6.69	0.26	0.217
JP_5841	6.703	6.69	0.26	0.217
JP_5844	5.496	6.69	0.26	0.217
JP_6003	41.385	10.63	0.04	0.129
JP_6005	4.498	10.4	0.05	0.134
JP_6008	0.712	8.79	0.14	0.17
JP_6032	1.089	7.22	0.23	0.205
JP_750	8.35	7.21	0.23	0.205
JP_800222	0.418	7.87	0.19	0.191
JP_800248	14.496	6.73	0.26	0.216
JP_800254	1.415	8.43	0.16	0.178
JP_800263	1.861	10.37	0.05	0.135
JP_800274	1.847	8.49	0.16	0.177
JP_800288	1.777	7.15	0.23	0.207
JP_800291	17.419	7.28	0.23	0.204
JP_800397	1.147	6.69	0.26	0.217
JP_800431	1.016	10.63	0.04	0.129
JP_800433	8.728	10.63	0.04	0.129
JP_800436	17.019	10.06	0.07	0.142
JP_800437	8	9.89	0.08	0.146

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
JP_103145	9.032	35%	0.351	35%	0.293	35%
JP_103168	10.854	35%	0.243	35%	0.252	35%
JP_103174	10.463	35%	0.270	35%	0.261	35%
JP_103179	10.341	35%	0.284	35%	0.263	35%
JP_11104	11.624	35%	0.203	35%	0.235	35%
JP_11170	11.138	35%	0.230	35%	0.246	35%
JP_11185	9.032	35%	0.351	35%	0.293	35%
JP_11191	11.286	35%	0.230	35%	0.243	35%
JP_118	9.180	35%	0.338	35%	0.290	35%
JP_150034	9.032	35%	0.351	35%	0.293	35%
JP_200029	9.032	35%	0.351	35%	0.293	35%
JP_2001	9.815	35%	0.311	35%	0.275	35%
JP_2003	9.032	35%	0.351	35%	0.293	35%
JP_2004	9.032	35%	0.351	35%	0.293	35%
JP_2006	12.164	35%	0.176	35%	0.223	35%
JP_2013	9.032	35%	0.351	35%	0.293	35%
JP_2025	11.313	35%	0.230	35%	0.242	35%
JP_2031	12.002	35%	0.189	35%	0.227	35%
JP_2044	14.351	35%	0.054	35%	0.174	35%
JP_2054	9.477	35%	0.324	35%	0.284	35%
JP_2058	10.706	35%	0.257	35%	0.255	35%
JP_2070	12.339	35%	0.162	35%	0.219	35%
JP_2090	9.086	35%	0.351	35%	0.292	35%
JP_279	9.032	35%	0.351	35%	0.293	35%
JP_30028	9.032	35%	0.351	35%	0.293	35%
JP_348	12.893	35%	0.135	35%	0.207	35%
JP_354	9.032	35%	0.351	35%	0.293	35%
JP_356	14.351	35%	0.054	35%	0.174	35%
JP_357	9.032	35%	0.351	35%	0.293	35%
JP_364	9.032	35%	0.351	35%	0.293	35%
JP_373	9.707	35%	0.311	35%	0.278	35%
JP_540	9.032	35%	0.351	35%	0.293	35%
JP_542	9.032	35%	0.351	35%	0.293	35%
JP_5829	13.082	35%	0.122	36%	0.203	35%
JP_5834	9.032	35%	0.351	35%	0.293	35%
JP_5837	9.032	35%	0.351	35%	0.293	35%
JP_5841	9.032	35%	0.351	35%	0.293	35%
JP_5844	9.032	35%	0.351	35%	0.293	35%
JP_6003	14.351	35%	0.054	35%	0.174	35%
JP_6005	14.040	35%	0.068	36%	0.181	35%
JP_6008	11.867	35%	0.189	35%	0.230	35%
JP_6032	9.747	35%	0.311	35%	0.277	35%
JP_750	9.734	35%	0.311	35%	0.277	35%
JP_800222	10.625	35%	0.257	35%	0.258	35%
JP_800248	9.086	35%	0.351	35%	0.292	35%
JP_800254	11.381	35%	0.216	35%	0.240	35%
JP_800263	14.000	35%	0.068	36%	0.182	35%
JP_800274	11.462	35%	0.216	35%	0.239	35%
JP_800288	9.653	35%	0.311	35%	0.279	35%
JP_800291	9.828	35%	0.311	35%	0.275	35%
JP_800397	9.032	35%	0.351	35%	0.293	35%
JP_800431	14.351	35%	0.054	35%	0.174	35%
JP_800433	14.351	35%	0.054	35%	0.174	35%
JP_800436	13.581	35%	0.095	36%	0.192	35%
JP_800437	13.352	35%	0.108	35%	0.197	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
JP_103145	0.06	0.241
JP_103168	0.06	0.28
JP_103174	0.06	0.286
JP_103179	0.06	0.254
JP_11104	0.06	0.272
JP_11170	0.06	0.263
JP_11185	0.06	0.28
JP_11191	0.06	0.259
JP_118	0.06	0.24
JP_150034	0.06	0.285
JP_200029	0.06	0.24
JP_2001	0.06	0.249
JP_2003	0.06	0.209
JP_2004	0.06	0.22
JP_2006	0.06	0.254
JP_2013	0.06	0.216
JP_2025	0.06	0.221
JP_2031	0.06	0.2
JP_2044	0.06	0.264
JP_2054	0.06	0.229
JP_2058	0.06	0.255
JP_2070	0.06	0.276
JP_2090	0.06	0.261
JP_279	0.06	0.255
JP_30028	0.06	0.258
JP_348	0.06	0.262
JP_354	0.06	0.252
JP_356	0.06	0.292
JP_357	0.06	0.209
JP_364	0.06	0
JP_373	0.06	0.249
JP_540	0.06	0.2
JP_542	0.06	0.296
JP_5829	0.06	0.276
JP_5834	0.06	0.231
JP_5837	0.06	0.233
JP_5841	0.06	0.261
JP_5844	0.06	0.254
JP_6003	0.06	0.278
JP_6005	0.06	0.283
JP_6008	0.06	0.241
JP_6032	0.06	0.2
JP_750	0.06	0.269
JP_800222	0.06	0.224
JP_800248	0.06	0.253
JP_800254	0.06	0.22
JP_800263	0.06	0.273
JP_800274	0.06	0.228
JP_800288	0.06	0.278
JP_800291	0.06	0.259
JP_800397	0.06	0.206
JP_800431	0.06	0.256
JP_800433	0.06	0.287
JP_800436	0.06	0.271
JP_800437	0.06	0.268

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
JP_103145	0.337	40%	0.078	30%
JP_103168	0.392	40%	0.078	30%
JP_103174	0.400	40%	0.078	30%
JP_103179	0.356	40%	0.078	30%
JP_11104	0.381	40%	0.078	30%
JP_11170	0.368	40%	0.078	30%
JP_11185	0.392	40%	0.078	30%
JP_11191	0.363	40%	0.078	30%
JP_118	0.336	40%	0.078	30%
JP_150034	0.399	40%	0.078	30%
JP_200029	0.336	40%	0.078	30%
JP_2001	0.349	40%	0.078	30%
JP_2003	0.293	40%	0.078	30%
JP_2004	0.308	40%	0.078	30%
JP_2006	0.356	40%	0.078	30%
JP_2013	0.302	40%	0.078	30%
JP_2025	0.309	40%	0.078	30%
JP_2031	0.280	40%	0.078	30%
JP_2044	0.370	40%	0.078	30%
JP_2054	0.321	40%	0.078	30%
JP_2058	0.357	40%	0.078	30%
JP_2070	0.386	40%	0.078	30%
JP_2090	0.365	40%	0.078	30%
JP_279	0.357	40%	0.078	30%
JP_30028	0.361	40%	0.078	30%
JP_348	0.367	40%	0.078	30%
JP_354	0.353	40%	0.078	30%
JP_356	0.409	40%	0.078	30%
JP_357	0.293	40%	0.078	30%
JP_364	0.000	0%	0.078	30%
JP_373	0.349	40%	0.078	30%
JP_540	0.280	40%	0.078	30%
JP_542	0.414	40%	0.078	30%
JP_5829	0.386	40%	0.078	30%
JP_5834	0.323	40%	0.078	30%
JP_5837	0.326	40%	0.078	30%
JP_5841	0.365	40%	0.078	30%
JP_5844	0.356	40%	0.078	30%
JP_6003	0.389	40%	0.078	30%
JP_6005	0.396	40%	0.078	30%
JP_6008	0.337	40%	0.078	30%
JP_6032	0.280	40%	0.078	30%
JP_750	0.377	40%	0.078	30%
JP_800222	0.314	40%	0.078	30%
JP_800248	0.354	40%	0.078	30%
JP_800254	0.308	40%	0.078	30%
JP_800263	0.382	40%	0.078	30%
JP_800274	0.319	40%	0.078	30%
JP_800288	0.389	40%	0.078	30%
JP_800291	0.363	40%	0.078	30%
JP_800397	0.288	40%	0.078	30%
JP_800431	0.358	40%	0.078	30%
JP_800433	0.402	40%	0.078	30%
JP_800436	0.379	40%	0.078	30%
JP_800437	0.375	40%	0.078	30%

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
JP_999032	0.693	10.63	0.04	0.129
JP_999035	6.028	10.63	0.04	0.129
JP_999038	12.36	10.63	0.04	0.129
JP_999039	20.999	7.54	0.21	0.198
JP_999042	15.249	6.74	0.26	0.216
JP_999046	3.003	10.01	0.07	0.143
JP_999048	14.104	6.69	0.26	0.217
JP_999049	12.257	6.69	0.26	0.217
JP_999050	10.48	6.69	0.26	0.217
JP_999054	33.22	8.53	0.16	0.176
JP_999057	52.189	7.61	0.21	0.196
JP_999058	3.579	8	0.19	0.188
JP_999059	26.371	8.47	0.16	0.177
JP_999167	23.874	6.69	0.26	0.217
101938	4.195	9.36	0.11	0.157
SL_100889	2.485	7.76	0.2	0.193
SL_1016	0.462	7.58	0.21	0.197
SL_1017	1.801	9.08	0.13	0.164
SL_1021	5.029	10.53	0.05	0.131
SL_1027	0.556	7.64	0.21	0.196
SL_1031	22.876	7.47	0.22	0.2
SL_1033	2.496	9.91	0.08	0.145
SL_1034	1.115	7.75	0.2	0.193
SL_1041	1.32	10.48	0.05	0.132
SL_1042	12.741	9.46	0.11	0.155
SL_1058	1.365	10.33	0.06	0.136
SL_1061	6.667	9.9	0.08	0.145
SL_1081	8.023	9.95	0.08	0.144
SL_1086	14.384	6.89	0.25	0.213
SL_1092	1.744	8.72	0.15	0.172
SL_1101	0.985	10.63	0.04	0.129
SL_1114	1.741	10.63	0.04	0.129
SL_1115	5.779	10.63	0.04	0.129
SL_1126	2.201	10.63	0.04	0.129
SL_1137	3.467	10.63	0.04	0.129
SL_1142	3.731	10.63	0.04	0.129
SL_1150	3.362	10.56	0.04	0.13
SL_1163	8.299	10.63	0.04	0.129
SL_1168	0.458	10.63	0.04	0.129
SL_1174	7.151	10.63	0.04	0.129
SL_1180	0.841	10.63	0.04	0.129
SL_1213	57.891	9.95	0.08	0.144
SL_1248	15.85	9.35	0.11	0.158
SL_1250	9.245	10.63	0.04	0.129
SL_1265	1.313	10.63	0.04	0.129
SL_1275	3.757	10.63	0.04	0.129
SL_1281	0.564	10.63	0.04	0.129
SL_1291	24.711	9.74	0.09	0.149
SL_1303	2.312	8.37	0.17	0.179
SL_1304	8.657	10.55	0.04	0.131
SL_1317	3.54	8.06	0.18	0.186
SL_1325	1.13	9.05	0.13	0.164
SL_1343	8.446	9.44	0.11	0.156
SL_1393	0.503	6.69	0.26	0.217
SL_1415	86.31	4.66	0.12	0.114

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
JP_999032	14.351	35%	0.054	35%	0.174	35%
JP_999035	14.351	35%	0.054	35%	0.174	35%
JP_999038	14.351	35%	0.054	35%	0.174	35%
JP_999039	10.179	35%	0.284	35%	0.267	35%
JP_999042	9.099	35%	0.351	35%	0.292	35%
JP_999046	13.514	35%	0.095	36%	0.193	35%
JP_999048	9.032	35%	0.351	35%	0.293	35%
JP_999049	9.032	35%	0.351	35%	0.293	35%
JP_999050	9.032	35%	0.351	35%	0.293	35%
JP_999054	11.516	35%	0.216	35%	0.238	35%
JP_999057	10.274	35%	0.284	35%	0.265	35%
JP_999058	10.800	35%	0.257	35%	0.254	35%
JP_999059	11.435	35%	0.216	35%	0.239	35%
JP_999167	9.032	35%	0.351	35%	0.293	35%
101938	12.636	35%	0.149	35%	0.212	35%
SL_100889	10.476	35%	0.270	35%	0.261	35%
SL_1016	10.233	35%	0.284	35%	0.266	35%
SL_1017	12.258	35%	0.176	35%	0.221	35%
SL_1021	14.216	35%	0.068	36%	0.177	35%
SL_1027	10.314	35%	0.284	35%	0.265	35%
SL_1031	10.085	35%	0.297	35%	0.270	35%
SL_1033	13.379	35%	0.108	35%	0.196	35%
SL_1034	10.463	35%	0.270	35%	0.261	35%
SL_1041	14.148	35%	0.068	36%	0.178	35%
SL_1042	12.771	35%	0.149	35%	0.209	35%
SL_1058	13.946	35%	0.081	35%	0.184	35%
SL_1061	13.365	35%	0.108	35%	0.196	35%
SL_1081	13.433	35%	0.108	35%	0.194	35%
SL_1086	9.302	35%	0.338	35%	0.288	35%
SL_1092	11.772	35%	0.203	35%	0.232	35%
SL_1101	14.351	35%	0.054	35%	0.174	35%
SL_1114	14.351	35%	0.054	35%	0.174	35%
SL_1115	14.351	35%	0.054	35%	0.174	35%
SL_1126	14.351	35%	0.054	35%	0.174	35%
SL_1137	14.351	35%	0.054	35%	0.174	35%
SL_1142	14.351	35%	0.054	35%	0.174	35%
SL_1150	14.256	35%	0.054	35%	0.176	35%
SL_1163	14.351	35%	0.054	35%	0.174	35%
SL_1168	14.351	35%	0.054	35%	0.174	35%
SL_1174	14.351	35%	0.054	35%	0.174	35%
SL_1180	14.351	35%	0.054	35%	0.174	35%
SL_1213	13.433	35%	0.108	35%	0.194	35%
SL_1248	12.623	35%	0.149	35%	0.213	35%
SL_1250	14.351	35%	0.054	35%	0.174	35%
SL_1265	14.351	35%	0.054	35%	0.174	35%
SL_1275	14.351	35%	0.054	35%	0.174	35%
SL_1281	14.351	35%	0.054	35%	0.174	35%
SL_1291	13.149	35%	0.122	36%	0.201	35%
SL_1303	11.300	35%	0.230	35%	0.242	35%
SL_1304	14.243	35%	0.054	35%	0.177	35%
SL_1317	10.881	35%	0.243	35%	0.251	35%
SL_1325	12.218	35%	0.176	35%	0.221	35%
SL_1343	12.744	35%	0.149	35%	0.211	35%
SL_1393	9.032	35%	0.351	35%	0.293	35%
SL_1415	6.291	35%	0.162	35%	0.154	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
JP_999032	0.06	0
JP_999035	0.06	0.285
JP_999038	0.06	0.281
JP_999039	0.06	0.259
JP_999042	0.06	0.21
JP_999046	0.06	0.26
JP_999048	0.06	0.229
JP_999049	0.06	0.257
JP_999050	0.06	0.271
JP_999054	0.06	0.26
JP_999057	0.06	0.267
JP_999058	0.06	0.252
JP_999059	0.06	0.264
JP_999167	0.06	0.222
101938	0.06	0.274
SL_100889	0.06	0.201
SL_1016	0.06	0.268
SL_1017	0.06	0.25
SL_1021	0.06	0.282
SL_1027	0.06	0.236
SL_1031	0.06	0.238
SL_1033	0.06	0.281
SL_1034	0.06	0.275
SL_1041	0.06	0.267
SL_1042	0.06	0.248
SL_1058	0.06	0.233
SL_1061	0.06	0.252
SL_1081	0.06	0.247
SL_1086	0.06	0.286
SL_1092	0.06	0.266
SL_1101	0.06	0.271
SL_1114	0.06	0.266
SL_1115	0.06	0.262
SL_1126	0.06	0.254
SL_1137	0.06	0.235
SL_1142	0.06	0.243
SL_1150	0.06	0.225
SL_1163	0.06	0.249
SL_1168	0.06	0.229
SL_1174	0.06	0.259
SL_1180	0.06	0.249
SL_1213	0.06	0.27
SL_1248	0.06	0.282
SL_1250	0.06	0.229
SL_1265	0.06	0.239
SL_1275	0.06	0.262
SL_1281	0.06	0.216
SL_1291	0.06	0.279
SL_1303	0.06	0.273
SL_1304	0.06	0.24
SL_1317	0.06	0.255
SL_1325	0.06	0.239
SL_1343	0.06	0.257
SL_1393	0.06	0.242
SL_1415	0.06	0.257

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
JP_999032	0.000	0%	0.078	30%
JP_999035	0.399	40%	0.078	30%
JP_999038	0.393	40%	0.078	30%
JP_999039	0.363	40%	0.078	30%
JP_999042	0.294	40%	0.078	30%
JP_999046	0.364	40%	0.078	30%
JP_999048	0.321	40%	0.078	30%
JP_999049	0.360	40%	0.078	30%
JP_999050	0.379	40%	0.078	30%
JP_999054	0.364	40%	0.078	30%
JP_999057	0.374	40%	0.078	30%
JP_999058	0.353	40%	0.078	30%
JP_999059	0.370	40%	0.078	30%
JP_999167	0.311	40%	0.078	30%
101938	0.384	40%	0.078	30%
SL_100889	0.281	40%	0.078	30%
SL_1016	0.375	40%	0.078	30%
SL_1017	0.350	40%	0.078	30%
SL_1021	0.395	40%	0.078	30%
SL_1027	0.330	40%	0.078	30%
SL_1031	0.333	40%	0.078	30%
SL_1033	0.393	40%	0.078	30%
SL_1034	0.385	40%	0.078	30%
SL_1041	0.374	40%	0.078	30%
SL_1042	0.347	40%	0.078	30%
SL_1058	0.326	40%	0.078	30%
SL_1061	0.353	40%	0.078	30%
SL_1081	0.346	40%	0.078	30%
SL_1086	0.400	40%	0.078	30%
SL_1092	0.372	40%	0.078	30%
SL_1101	0.379	40%	0.078	30%
SL_1114	0.372	40%	0.078	30%
SL_1115	0.367	40%	0.078	30%
SL_1126	0.356	40%	0.078	30%
SL_1137	0.329	40%	0.078	30%
SL_1142	0.340	40%	0.078	30%
SL_1150	0.315	40%	0.078	30%
SL_1163	0.349	40%	0.078	30%
SL_1168	0.321	40%	0.078	30%
SL_1174	0.363	40%	0.078	30%
SL_1180	0.349	40%	0.078	30%
SL_1213	0.378	40%	0.078	30%
SL_1248	0.395	40%	0.078	30%
SL_1250	0.321	40%	0.078	30%
SL_1265	0.335	40%	0.078	30%
SL_1275	0.367	40%	0.078	30%
SL_1281	0.302	40%	0.078	30%
SL_1291	0.391	40%	0.078	30%
SL_1303	0.382	40%	0.078	30%
SL_1304	0.336	40%	0.078	30%
SL_1317	0.357	40%	0.078	30%
SL_1325	0.335	40%	0.078	30%
SL_1343	0.360	40%	0.078	30%
SL_1393	0.339	40%	0.078	30%
SL_1415	0.360	40%	0.078	30%

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
SL_1443	1.11	6.69	0.26	0.217
SL_1450	0.129	6.69	0.26	0.217
SL_1455	7.236	6.69	0.26	0.217
SL_1469	1.266	6.69	0.26	0.217
SL_1486	0.577	6.69	0.26	0.217
SL_1498	1.802	8.17	0.18	0.184
SL_1518	3.365	9.14	0.12	0.162
SL_1536	8.601	10.17	0.07	0.139
SL_1547	5.089	7.49	0.22	0.199
SL_1576	14.75	10.61	0.04	0.129
SL_1586	0.68	8.93	0.13	0.167
SL_1590	3.697	10.28	0.06	0.137
SL_1601	13.409	10.63	0.04	0.129
SL_1617	11.546	10.63	0.04	0.129
SL_192	12.501	8.62	0.15	0.174
SL_324	5.202	7.46	0.22	0.2
SL_4469	29.708	6.74	0.07	0.109
SL_5000	0.975	6.69	0.26	0.217
SL_5009	2.896	6.69	0.26	0.217
SL_5024	2.409	7.86	0.19	0.191
SL_5028	12.544	6.69	0.26	0.217
SL_5032	7.431	6.69	0.26	0.217
SL_5033	5	8.12	0.18	0.185
SL_5040	0.771	6.69	0.26	0.217
SL_5045	2.476	6.69	0.26	0.217
SL_5046	1.005	6.69	0.26	0.217
SL_5049	6.111	6.69	0.26	0.217
SL_5074	5.423	10.23	0.06	0.138
SL_5081	14.44	7.01	0.24	0.21
SL_5127	9.251	8.81	0.13	0.164
SL_5129	10.959	9.61	0.1	0.152
SL_5143	10.445	10.63	0.04	0.129
SL_5159	2.565	9.12	0.12	0.163
SL_5198	7.959	10.39	0.05	0.134
SL_5213	6.506	10.37	0.05	0.135
SL_5231	4.578	10.63	0.04	0.129
SL_5237	2.749	10.63	0.04	0.129
SL_5250	5.336	10.63	0.04	0.129
SL_5254	13.016	10.63	0.04	0.129
SL_5257	2.21	10.63	0.04	0.129
SL_5261	7.132	10.63	0.04	0.129
SL_5262	14.284	10.62	0.04	0.129
SL_5264	2.135	10.63	0.04	0.129
SL_5272	5.628	10.03	0.07	0.143
SL_5273	3.977	10.39	0.05	0.134
SL_5283	0.969	7.86	0.19	0.191
SL_5333	3.786	10.63	0.04	0.129
SL_5340	5.409	9.59	0.1	0.152
SL_5342	1.654	10.37	0.05	0.135
SL_5412	7.643	9.92	0.08	0.145
SL_5417	4.424	10.63	0.04	0.129
SL_5430	5.682	6.69	0.26	0.217
SL_5431	0.768	6.69	0.26	0.217
SL_5438	3.526	6.69	0.26	0.217
SL_5448	0.256	6.69	0.26	0.217

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
SL_1443	9.032	35%	0.351	35%	0.293	35%
SL_1450	9.032	35%	0.351	35%	0.293	35%
SL_1455	9.032	35%	0.351	35%	0.293	35%
SL_1469	9.032	35%	0.351	35%	0.293	35%
SL_1486	9.032	35%	0.351	35%	0.293	35%
SL_1498	11.030	35%	0.243	35%	0.248	35%
SL_1518	12.339	35%	0.162	35%	0.219	35%
SL_1536	13.730	35%	0.095	36%	0.188	35%
SL_1547	10.112	35%	0.297	35%	0.269	35%
SL_1576	14.324	35%	0.054	35%	0.174	35%
SL_1586	12.056	35%	0.176	35%	0.225	35%
SL_1590	13.878	35%	0.081	35%	0.185	35%
SL_1601	14.351	35%	0.054	35%	0.174	35%
SL_1617	14.351	35%	0.054	35%	0.174	35%
SL_192	11.637	35%	0.203	35%	0.235	35%
SL_324	10.071	35%	0.297	35%	0.270	35%
SL_4469	9.099	35%	0.095	36%	0.147	35%
SL_5000	9.032	35%	0.351	35%	0.293	35%
SL_5009	9.032	35%	0.351	35%	0.293	35%
SL_5024	10.611	35%	0.257	35%	0.258	35%
SL_5028	9.032	35%	0.351	35%	0.293	35%
SL_5032	9.032	35%	0.351	35%	0.293	35%
SL_5033	10.962	35%	0.243	35%	0.250	35%
SL_5040	9.032	35%	0.351	35%	0.293	35%
SL_5045	9.032	35%	0.351	35%	0.293	35%
SL_5046	9.032	35%	0.351	35%	0.293	35%
SL_5049	9.032	35%	0.351	35%	0.293	35%
SL_5074	13.811	35%	0.081	35%	0.186	35%
SL_5081	9.464	35%	0.324	35%	0.284	35%
SL_5127	11.894	35%	0.176	35%	0.221	35%
SL_5129	12.974	35%	0.135	35%	0.205	35%
SL_5143	14.351	35%	0.054	35%	0.174	35%
SL_5159	12.312	35%	0.162	35%	0.220	35%
SL_5198	14.027	35%	0.068	36%	0.181	35%
SL_5213	14.000	35%	0.068	36%	0.182	35%
SL_5231	14.351	35%	0.054	35%	0.174	35%
SL_5237	14.351	35%	0.054	35%	0.174	35%
SL_5250	14.351	35%	0.054	35%	0.174	35%
SL_5254	14.351	35%	0.054	35%	0.174	35%
SL_5257	14.351	35%	0.054	35%	0.174	35%
SL_5261	14.351	35%	0.054	35%	0.174	35%
SL_5262	14.337	35%	0.054	35%	0.174	35%
SL_5264	14.351	35%	0.054	35%	0.174	35%
SL_5272	13.541	35%	0.095	36%	0.193	35%
SL_5273	14.027	35%	0.068	36%	0.181	35%
SL_5283	10.611	35%	0.257	35%	0.258	35%
SL_5333	14.351	35%	0.054	35%	0.174	35%
SL_5340	12.947	35%	0.135	35%	0.205	35%
SL_5342	14.000	35%	0.068	36%	0.182	35%
SL_5412	13.392	35%	0.108	35%	0.196	35%
SL_5417	14.351	35%	0.054	35%	0.174	35%
SL_5430	9.032	35%	0.351	35%	0.293	35%
SL_5431	9.032	35%	0.351	35%	0.293	35%
SL_5438	9.032	35%	0.351	35%	0.293	35%
SL_5448	9.032	35%	0.351	35%	0.293	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
SL_1443	0.06	0.254
SL_1450	0.06	0.286
SL_1455	0.06	0.262
SL_1469	0.06	0.232
SL_1486	0.06	0.2
SL_1498	0.06	0.205
SL_1518	0.06	0.248
SL_1536	0.06	0.227
SL_1547	0.06	0.271
SL_1576	0.06	0.257
SL_1586	0.06	0.253
SL_1590	0.06	0.234
SL_1601	0.06	0.253
SL_1617	0.06	0.235
SL_192	0.06	0.23
SL_324	0.06	0.269
SL_4469	0.06	0.262
SL_5000	0.06	0.233
SL_5009	0.06	0.271
SL_5024	0.06	0.244
SL_5028	0.06	0.26
SL_5032	0.06	0.269
SL_5033	0.06	0.258
SL_5040	0.06	0.256
SL_5045	0.06	0.233
SL_5046	0.06	0.262
SL_5049	0.06	0.266
SL_5074	0.06	0.256
SL_5081	0.06	0.241
SL_5127	0.06	0.242
SL_5129	0.06	0.26
SL_5143	0.06	0.231
SL_5159	0.06	0.277
SL_5198	0.06	0.257
SL_5213	0.06	0.239
SL_5231	0.06	0.28
SL_5237	0.06	0.26
SL_5250	0.06	0.261
SL_5254	0.06	0.275
SL_5257	0.06	0.255
SL_5261	0.06	0.278
SL_5262	0.06	0.276
SL_5264	0.06	0.275
SL_5272	0.06	0.268
SL_5273	0.06	0.246
SL_5283	0.06	0.278
SL_5333	0.06	0.239
SL_5340	0.06	0.295
SL_5342	0.06	0.258
SL_5412	0.06	0.278
SL_5417	0.06	0.248
SL_5430	0.06	0.265
SL_5431	0.06	0.251
SL_5438	0.06	0.273
SL_5448	0.06	0.205

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
SL_1443	0.356	40%	0.078	30%
SL_1450	0.400	40%	0.078	30%
SL_1455	0.367	40%	0.078	30%
SL_1469	0.325	40%	0.078	30%
SL_1486	0.280	40%	0.078	30%
SL_1498	0.287	40%	0.078	30%
SL_1518	0.347	40%	0.078	30%
SL_1536	0.318	40%	0.078	30%
SL_1547	0.379	40%	0.078	30%
SL_1576	0.360	40%	0.078	30%
SL_1586	0.354	40%	0.078	30%
SL_1590	0.328	40%	0.078	30%
SL_1601	0.354	40%	0.078	30%
SL_1617	0.329	40%	0.078	30%
SL_192	0.322	40%	0.078	30%
SL_324	0.377	40%	0.078	30%
SL_4469	0.367	40%	0.078	30%
SL_5000	0.326	40%	0.078	30%
SL_5009	0.379	40%	0.078	30%
SL_5024	0.342	40%	0.078	30%
SL_5028	0.364	40%	0.078	30%
SL_5032	0.377	40%	0.078	30%
SL_5033	0.361	40%	0.078	30%
SL_5040	0.358	40%	0.078	30%
SL_5045	0.326	40%	0.078	30%
SL_5046	0.367	40%	0.078	30%
SL_5049	0.372	40%	0.078	30%
SL_5074	0.358	40%	0.078	30%
SL_5081	0.337	40%	0.078	30%
SL_5127	0.339	40%	0.078	30%
SL_5129	0.364	40%	0.078	30%
SL_5143	0.323	40%	0.078	30%
SL_5159	0.388	40%	0.078	30%
SL_5198	0.360	40%	0.078	30%
SL_5213	0.335	40%	0.078	30%
SL_5231	0.392	40%	0.078	30%
SL_5237	0.364	40%	0.078	30%
SL_5250	0.365	40%	0.078	30%
SL_5254	0.385	40%	0.078	30%
SL_5257	0.357	40%	0.078	30%
SL_5261	0.389	40%	0.078	30%
SL_5262	0.386	40%	0.078	30%
SL_5264	0.385	40%	0.078	30%
SL_5272	0.375	40%	0.078	30%
SL_5273	0.344	40%	0.078	30%
SL_5283	0.389	40%	0.078	30%
SL_5333	0.335	40%	0.078	30%
SL_5340	0.413	40%	0.078	30%
SL_5342	0.361	40%	0.078	30%
SL_5412	0.389	40%	0.078	30%
SL_5417	0.347	40%	0.078	30%
SL_5430	0.371	40%	0.078	30%
SL_5431	0.351	40%	0.078	30%
SL_5438	0.382	40%	0.078	30%
SL_5448	0.287	40%	0.078	30%

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
SL_5480	4.435	8.3	0.06	0.117
SL_5508	8.114	6.98	0.24	0.21
SL_5521	3.291	10.63	0.04	0.129
SL_5538	2.875	10.63	0.04	0.129
SL_5549	15.708	10.46	0.05	0.133
SL_5601	0.21	6.69	0.26	0.217
SL_5605	5.395	10.06	0.07	0.142
SL_5608	0.304	7.33	0.22	0.203
SL_5800	6.186	10.58	0.04	0.13
SL_5805	6.946	8.55	0.16	0.176
SL_5816	4.442	6.69	0.26	0.217
SL_5838	4.827	9.67	0.09	0.151
SL_600	3.692	10.63	0.04	0.129
SL_6034	6.492	7.45	0.22	0.2
SL_800125	7.514	8.53	0.16	0.176
SL_800131	3.664	8.13	0.18	0.185
SL_800149	4.506	10.32	0.06	0.136
SL_99139	11.914	5.69	0.07	0.096
SL_999062	5.014	10.63	0.04	0.129
SL_999063	2.208	9.06	0.13	0.164
SL_999064	1.235	6.74	0.26	0.216
SL_999065	0.799	10.4	0.05	0.134
SL_999066	34.036	10.16	0.07	0.14
SL_999067	4.838	10.63	0.04	0.129
SL_999068	4.523	9.67	0.09	0.151
SL_999069	1.681	9.11	0.13	0.163
SL_999070	8.418	10.36	0.06	0.135
SL_999071	3.958	9.57	0.1	0.153
SL_999072	5.363	10.08	0.07	0.141
SL_999073	15.158	8.06	0.07	0.122
SL_999074	2.327	10.63	0.04	0.129
SL_999075	2.89	9.19	0.03	0.112
SL_999078	10.072	10.16	0.07	0.139
SL_999079	4.88	9.63	0.1	0.151
SL_999080	3.286	6.69	0.26	0.217
SL_999082	9.821	10.23	0.06	0.138
SL_999083	3.877	10.63	0.04	0.129
SL_999085	3.654	10.63	0.04	0.129
SL_999087	32.727	10.63	0.04	0.129
SL_999088	8.971	10.63	0.04	0.129
SL_999089	2.051	10.41	0.05	0.134
SL_999091	10.754	10.63	0.04	0.129
SL_999092	2.858	10.63	0.04	0.129
SL_999093	12.774	9.21	0.12	0.161
SL_999094	3.25	6.69	0.26	0.217
SL_999095	12.163	6.69	0.26	0.217
SL_999096	1.744	6.69	0.26	0.217
SL_999097	7.422	8.16	0.18	0.184
SL_999098	8.471	10.13	0.07	0.14
SL_999099	3.15	10.63	0.04	0.129
SL_999100	4.529	9.93	0.08	0.145
SL_999101	9.434	10.63	0.04	0.129
SL_999102	6.884	10.62	0.04	0.129
SL_999104	15.853	10.39	0.05	0.134
SL_999115	5.541	6.69	0.26	0.217

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
SL_5480	11.205	35%	0.081	35%	0.158	35%
SL_5508	9.423	35%	0.324	35%	0.284	35%
SL_5521	14.351	35%	0.054	35%	0.174	35%
SL_5538	14.351	35%	0.054	35%	0.174	35%
SL_5549	14.121	35%	0.068	36%	0.180	35%
SL_5601	9.032	35%	0.351	35%	0.293	35%
SL_5605	13.581	35%	0.095	36%	0.192	35%
SL_5608	9.896	35%	0.297	35%	0.274	35%
SL_5800	14.283	35%	0.054	35%	0.176	35%
SL_5805	11.543	35%	0.216	35%	0.238	35%
SL_5816	9.032	35%	0.351	35%	0.293	35%
SL_5838	13.055	35%	0.122	36%	0.204	35%
SL_600	14.351	35%	0.054	35%	0.174	35%
SL_6034	10.058	35%	0.297	35%	0.270	35%
SL_800125	11.516	35%	0.216	35%	0.238	35%
SL_800131	10.976	35%	0.243	35%	0.250	35%
SL_800149	13.932	35%	0.081	35%	0.184	35%
SL_99139	7.682	35%	0.095	36%	0.130	35%
SL_999062	14.351	35%	0.054	35%	0.174	35%
SL_999063	12.231	35%	0.176	35%	0.221	35%
SL_999064	9.099	35%	0.351	35%	0.292	35%
SL_999065	14.040	35%	0.068	36%	0.181	35%
SL_999066	13.716	35%	0.095	36%	0.189	35%
SL_999067	14.351	35%	0.054	35%	0.174	35%
SL_999068	13.055	35%	0.122	36%	0.204	35%
SL_999069	12.299	35%	0.176	35%	0.220	35%
SL_999070	13.986	35%	0.081	35%	0.182	35%
SL_999071	12.920	35%	0.135	35%	0.207	35%
SL_999072	13.608	35%	0.095	36%	0.190	35%
SL_999073	10.881	35%	0.095	36%	0.165	35%
SL_999074	14.351	35%	0.054	35%	0.174	35%
SL_999075	12.407	35%	0.041	37%	0.151	35%
SL_999078	13.716	35%	0.095	36%	0.188	35%
SL_999079	13.001	35%	0.135	35%	0.204	35%
SL_999080	9.032	35%	0.351	35%	0.293	35%
SL_999082	13.811	35%	0.081	35%	0.186	35%
SL_999083	14.351	35%	0.054	35%	0.174	35%
SL_999085	14.351	35%	0.054	35%	0.174	35%
SL_999087	14.351	35%	0.054	35%	0.174	35%
SL_999088	14.351	35%	0.054	35%	0.174	35%
SL_999089	14.054	35%	0.068	36%	0.181	35%
SL_999091	14.351	35%	0.054	35%	0.174	35%
SL_999092	14.351	35%	0.054	35%	0.174	35%
SL_999093	12.434	35%	0.162	35%	0.217	35%
SL_999094	9.032	35%	0.351	35%	0.293	35%
SL_999095	9.032	35%	0.351	35%	0.293	35%
SL_999096	9.032	35%	0.351	35%	0.293	35%
SL_999097	11.016	35%	0.243	35%	0.248	35%
SL_999098	13.676	35%	0.095	36%	0.189	35%
SL_999099	14.351	35%	0.054	35%	0.174	35%
SL_999100	13.406	35%	0.108	35%	0.196	35%
SL_999101	14.351	35%	0.054	35%	0.174	35%
SL_999102	14.337	35%	0.054	35%	0.174	35%
SL_999104	14.027	35%	0.068	36%	0.181	35%
SL_999115	9.032	35%	0.351	35%	0.293	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
SL_5480	0.06	0.254
SL_5508	0.06	0.248
SL_5521	0.06	0.264
SL_5538	0.06	0.263
SL_5549	0.06	0.294
SL_5601	0.06	0.229
SL_5605	0.06	0.277
SL_5608	0.06	0.282
SL_5800	0.06	0.281
SL_5805	0.06	0.274
SL_5816	0.06	0.226
SL_5838	0.06	0.272
SL_600	0.06	0.259
SL_6034	0.06	0.253
SL_800125	0.06	0.256
SL_800131	0.06	0.226
SL_800149	0.06	0.242
SL_99139	0.06	0.269
SL_999062	0.06	0.278
SL_999063	0.06	0.258
SL_999064	0.06	0.252
SL_999065	0.06	0.224
SL_999066	0.06	0.291
SL_999067	0.06	0.243
SL_999068	0.06	0.24
SL_999069	0.06	0.239
SL_999070	0.06	0.244
SL_999071	0.06	0.258
SL_999072	0.06	0.258
SL_999073	0.06	0.259
SL_999074	0.06	0.286
SL_999075	0.06	0.259
SL_999078	0.06	0.26
SL_999079	0.06	0.265
SL_999080	0.06	0.256
SL_999082	0.06	0.273
SL_999083	0.06	0.268
SL_999085	0.06	0.269
SL_999087	0.06	0.257
SL_999088	0.06	0.283
SL_999089	0.06	0.275
SL_999091	0.06	0.242
SL_999092	0.06	0.224
SL_999093	0.06	0.247
SL_999094	0.06	0.255
SL_999095	0.06	0.253
SL_999096	0.06	0.269
SL_999097	0.06	0.264
SL_999098	0.06	0.26
SL_999099	0.06	0.224
SL_999100	0.06	0.226
SL_999101	0.06	0.256
SL_999102	0.06	0.258
SL_999104	0.06	0.24
SL_999115	0.06	0.243

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
SL_5480	0.356	40%	0.078	30%
SL_5508	0.347	40%	0.078	30%
SL_5521	0.370	40%	0.078	30%
SL_5538	0.368	40%	0.078	30%
SL_5549	0.412	40%	0.078	30%
SL_5601	0.321	40%	0.078	30%
SL_5605	0.388	40%	0.078	30%
SL_5608	0.395	40%	0.078	30%
SL_5800	0.393	40%	0.078	30%
SL_5805	0.384	40%	0.078	30%
SL_5816	0.316	40%	0.078	30%
SL_5838	0.381	40%	0.078	30%
SL_600	0.363	40%	0.078	30%
SL_6034	0.354	40%	0.078	30%
SL_800125	0.358	40%	0.078	30%
SL_800131	0.316	40%	0.078	30%
SL_800149	0.339	40%	0.078	30%
SL_99139	0.377	40%	0.078	30%
SL_999062	0.389	40%	0.078	30%
SL_999063	0.361	40%	0.078	30%
SL_999064	0.353	40%	0.078	30%
SL_999065	0.314	40%	0.078	30%
SL_999066	0.407	40%	0.078	30%
SL_999067	0.340	40%	0.078	30%
SL_999068	0.336	40%	0.078	30%
SL_999069	0.335	40%	0.078	30%
SL_999070	0.342	40%	0.078	30%
SL_999071	0.361	40%	0.078	30%
SL_999072	0.361	40%	0.078	30%
SL_999073	0.363	40%	0.078	30%
SL_999074	0.400	40%	0.078	30%
SL_999075	0.363	40%	0.078	30%
SL_999078	0.364	40%	0.078	30%
SL_999079	0.371	40%	0.078	30%
SL_999080	0.358	40%	0.078	30%
SL_999082	0.382	40%	0.078	30%
SL_999083	0.375	40%	0.078	30%
SL_999085	0.377	40%	0.078	30%
SL_999087	0.360	40%	0.078	30%
SL_999088	0.396	40%	0.078	30%
SL_999089	0.385	40%	0.078	30%
SL_999091	0.339	40%	0.078	30%
SL_999092	0.314	40%	0.078	30%
SL_999093	0.346	40%	0.078	30%
SL_999094	0.357	40%	0.078	30%
SL_999095	0.354	40%	0.078	30%
SL_999096	0.377	40%	0.078	30%
SL_999097	0.370	40%	0.078	30%
SL_999098	0.364	40%	0.078	30%
SL_999099	0.314	40%	0.078	30%
SL_999100	0.316	40%	0.078	30%
SL_999101	0.358	40%	0.078	30%
SL_999102	0.361	40		

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
SL_999117	2.043	6.69	0.26	0.217
SL_999120	4.033	8.68	0.15	0.173
SL_999121	1.076	9.22	0.12	0.161
SL_999122	7.895	8.24	0.17	0.182
SL_999123	0.295	6.69	0.26	0.217
SL_999124	6.287	7.51	0.21	0.199
SL_999125	0.824	6.69	0.26	0.217
SL_999128	132.569	6.79	0.25	0.215
SL_999133	29.71	6.69	0.26	0.217
SL_999134	27.584	6.69	0.26	0.217
SL_999166	2.696	7.14	0.23	0.206
SL_S1017	22.644	9.05	0.13	0.164
SL_SC1132	0.847	10.63	0.04	0.129
SL_SC1144	2.016	10.63	0.04	0.129
SL_SC1321	0.789	6.69	0.26	0.217
SL_SC1609	4.068	8.93	0.13	0.167
W_101213	4.275	7.02	0.24	0.21
W_101216	1.645	6.8	0.25	0.214
W_101219	0.867	6.69	0.26	0.217
W_101396	0.78	6.69	0.26	0.217
W_101524	12.025	6.69	0.26	0.217
W_101740	11.769	10.05	0.07	0.142
W_101891	13.002	5.46	0.21	0.177
W_101908	1.545	6.69	0.26	0.217
W_101910	1.8	6.69	0.26	0.217
W_101912	19.528	9.49	0.1	0.155
W_101918	1.154	6.69	0.26	0.217
W_101924	1.295	6.69	0.26	0.217
W_101933	13.433	8.11	0.18	0.185
W_101935	4.686	7.85	0.2	0.191
W_101938	17.361	10.61	0.04	0.129
W_101942	5.332	9.46	0.11	0.155
W_101945	1.681	7.21	0.23	0.205
W_101948	7.007	10.05	0.07	0.142
W_101952	9.184	6.86	0.25	0.213
W_101954	1.133	6.85	0.25	0.213
W_101956	0.367	6.69	0.26	0.217
W_102062	1.485	8.99	0.13	0.166
W_102063	12.247	10.41	0.05	0.134
W_102070	13.814	9.85	0.08	0.146
W_102073	0.898	6.71	0.26	0.217
W_102078	11.641	9.53	0.1	0.154
W_102082	4.265	10.43	0.05	0.133
W_102094	9.814	10.21	0.06	0.138
W_102095	2.006	9.67	0.09	0.15
W_102121	65.8	10.12	0.07	0.14
W_102124	3.037	10.63	0.04	0.129
W_102165	1.182	10.63	0.04	0.129
W_102166	3.833	8.88	0.14	0.168
W_102171	2.961	10.63	0.04	0.129
W_102187	17.06	10.3	0.06	0.136
W_102213	4.29	9.71	0.09	0.15
W_102214	1.444	9.25	0.12	0.16
W_102216	1.34	8.06	0.18	0.186
W_102306	6.577	10.12	0.07	0.14

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
SL_999117	9.032	35%	0.351	35%	0.293	35%
SL_999120	11.718	35%	0.203	35%	0.234	35%
SL_999121	12.447	35%	0.162	35%	0.217	35%
SL_999122	11.124	35%	0.230	35%	0.246	35%
SL_999123	9.032	35%	0.351	35%	0.293	35%
SL_999124	10.139	35%	0.284	35%	0.269	35%
SL_999125	9.032	35%	0.351	35%	0.293	35%
SL_999128	9.167	35%	0.338	35%	0.290	35%
SL_999133	9.032	35%	0.351	35%	0.293	35%
SL_999134	9.032	35%	0.351	35%	0.293	35%
SL_999166	9.639	35%	0.311	35%	0.278	35%
SL_S1017	12.218	35%	0.176	35%	0.221	35%
SL_SC1132	14.351	35%	0.054	35%	0.174	35%
SL_SC1144	14.351	35%	0.054	35%	0.174	35%
SL_SC1321	9.032	35%	0.351	35%	0.293	35%
SL_SC1609	12.056	35%	0.176	35%	0.225	35%
W_101213	9.477	35%	0.324	35%	0.284	35%
W_101216	9.180	35%	0.338	35%	0.289	35%
W_101219	9.032	35%	0.351	35%	0.293	35%
W_101396	9.032	35%	0.351	35%	0.293	35%
W_101524	9.032	35%	0.351	35%	0.293	35%
W_101740	10.568	35%	0.095	36%	0.192	35%
W_101891	7.371	35%	0.284	35%	0.239	35%
W_101908	9.032	35%	0.351	35%	0.293	35%
W_101910	9.032	35%	0.351	35%	0.293	35%
W_101912	12.812	35%	0.135	35%	0.209	35%
W_101918	9.032	35%	0.351	35%	0.293	35%
W_101924	9.032	35%	0.351	35%	0.293	35%
W_101933	10.949	35%	0.243	35%	0.250	35%
W_101935	10.598	35%	0.270	35%	0.258	35%
W_101938	14.324	35%	0.054	35%	0.174	35%
W_101942	12.771	35%	0.149	35%	0.209	35%
W_101945	9.734	35%	0.311	35%	0.277	35%
W_101948	13.568	35%	0.095	36%	0.192	35%
W_101952	9.261	35%	0.338	35%	0.288	35%
W_101954	9.248	35%	0.338	35%	0.288	35%
W_101956	9.032	35%	0.351	35%	0.293	35%
W_102062	12.137	35%	0.176	35%	0.224	35%
W_102063	14.054	35%	0.068	36%	0.181	35%
W_102070	13.298	35%	0.108	35%	0.197	35%
W_102073	9.059	35%	0.351	35%	0.293	35%
W_102078	12.866	35%	0.135	35%	0.208	35%
W_102082	14.081	35%	0.068	36%	0.180	35%
W_102094	13.784	35%	0.081	35%	0.186	35%
W_102095	13.055	35%	0.122	36%	0.203	35%
W_102121	13.662	35%	0.095	36%	0.189	35%
W_102124	14.351	35%	0.054	35%	0.174	35%
W_102165	14.351	35%	0.054	35%	0.174	35%
W_102166	11.988	35%	0.189	35%	0.227	35%
W_102171	14.351	35%	0.054	35%	0.174	35%
W_102187	13.905	35%	0.081	35%	0.184	35%
W_102213	13.109	35%	0.122	36%	0.203	35%
W_102214	12.488	35%	0.162	35%	0.216	35%
W_102216	10.881	35%	0.243	35%	0.251	35%
W_102306	13.662	35%	0.095	36%	0.189	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
SL_999117	0.06	0.267
SL_999120	0.06	0.244
SL_999121	0.06	0.264
SL_999122	0.06	0.257
SL_999123	0.06	0.2
SL_999124	0.06	0.27
SL_999125	0.06	0.2
SL_999128	0.06	0.252
SL_999133	0.06	0.224
SL_999134	0.06	0.206
SL_999166	0.06	0.241
SL_S1017	0.06	0.25
SL_SC1132	0.06	0.263
SL_SC1144	0.06	0.23
SL_SC1321	0.06	0.255
SL_SC1609	0.06	0.248
W_101213	0.06	0.224
W_101216	0.06	0.243
W_101219	0.06	0.214
W_101396	0.06	0.265
W_101524	0.06	0.211
W_101740	0.06	0.241
W_101891	0.06	0.226
W_101908	0.06	0.249
W_101910	0.06	0.223
W_101912	0.06	0.246
W_101918	0.06	0.221
W_101924	0.06	0.221
W_101933	0.06	0.236
W_101935	0.06	0.242
W_101938	0.06	0.29
W_101942	0.06	0.263
W_101945	0.06	0.289
W_101948	0.06	0.251
W_101952	0.06	0.234
W_101954	0.06	0.205
W_101956	0.06	0.201
W_102062	0.06	0.22
W_102063	0.06	0.286
W_102070	0.06	0.278
W_102073	0.06	0.234
W_102078	0.06	0.277
W_102082	0.06	0.277
W_102094	0.06	0.279
W_102095	0.06	0.283
W_102121	0.06	0.286
W_102124	0.06	0.266
W_102165	0.06	0.3
W_102166	0.06	0.263
W_102171	0.06	0.298
W_102187	0.06	0.281
W_102213	0.06	0.277
W_102214	0.06	0.201
W_102216	0.06	0.247
W_102306	0.06	0.267

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
SL_999117	0.374	40%	0.078	30%
SL_999120	0.342	40%	0.078	30%
SL_999121	0.370	40%	0.078	30%
SL_999122	0.360	40%	0.078	30%
SL_999123	0.280	40%	0.078	30%
SL_999124	0.378	40%	0.078	30%
SL_999125	0.280	40%	0.078	30%
SL_999128	0.353	40%	0.078	30%
SL_999133	0.314	40%	0.078	30%
SL_999134	0.288	40%	0.078	30%
SL_999166	0.337	40%	0.078	30%
SL_S1017	0.350	40%	0.078	30%
SL_SC1132	0.368	40%	0.078	30%
SL_SC1144	0.322	40%	0.078	30%
SL_SC1321	0.357	40%	0.078	30%
SL_SC1609	0.347	40%	0.078	30%
W_101213	0.314	40%	0.078	30%
W_101216	0.340	40%	0.078	30%
W_101219	0.300	40%	0.078	30%
W_101396	0.371	40%	0.078	30%
W_101524	0.295	40%	0.078	30%
W_101740	0.337	40%	0.078	30%
W_101891	0.316	40%	0.078	30%
W_101908	0.349	40%	0.078	30%
W_101910	0.312	40%	0.078	30%
W_101912	0.344	40%	0.078	30%
W_101918	0.309	40%	0.078	30%
W_101924	0.309	40%	0.078	30%
W_101933	0.330	40%	0.078	30%
W_101935	0.339	40%	0.078	30%
W_101938	0.406	40%	0.078	30%
W_101942	0.368	40%	0.078	30%
W_101945	0.405	40%	0.078	30%
W_101948	0.351	40%	0.078	30%
W_101952	0.328	40%	0.078	30%
W_101954	0.287	40%	0.078	30%
W_101956	0.281	40%	0.078	30%
W_102062	0.308	40%	0.078	30%
W_102063	0.400	40%	0.078	30%
W_102070	0.389	40%	0.078	30%
W_102073	0.328	40%	0.078	30%
W_102078	0.388	40%	0.078	30%
W_102082	0.388	40%	0.078	30%
W_102094	0.391	40%	0.078	30%
W_102095	0.396	40%	0.078	30%
W_102121	0.400	40%	0.078	30%
W_102124	0.372	40%	0.078	30%
W_102165	0.420	40%	0.078	30%
W_102166	0.368	40%	0.078	30%
W_102171	0.417	40%	0.078	30%
W_102187	0.393	40%	0.078	30%
W_102213	0.388	40%	0.078	30%
W_102214				

Drainage Master Plan - Windermere Study Area

Table 2.2.1

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Green & Ampt Parameters Calculated from GIS Intersection

Subcatchment ID	Subcatchment Area (ac)	WEIGHTED Capillary Suction Head (in)	WEIGHTED Sat. Hydraulic Conductivity (in/hr)	WEIGHTED Initial Soil Moisture Deficit (fraction)
W_102577	9.138	10.63	0.04	0.129
W_102588	0.322	10.63	0.04	0.129
W_102853	114.714	8.73	0.03	0.107
W_102873	0.89	10	0.08	0.143
W_102876	4.152	10.19	0.06	0.139
W_102880	0.855	10.63	0.04	0.129
W_102939	4.088	10.63	0.04	0.129
W_102973	1.942	9.71	0.09	0.15
W_102990.1	8.524	10.63	0.04	0.129
W_102990.2	4.976	8.82	0.14	0.169
W_150090	23.94	10.03	0.07	0.142
W_150130	4.546	8.07	0.18	0.186
W_150150	34.417	9.86	0.08	0.146
W_150177	4.354	7.62	0.21	0.196
W_150202	13.294	10.14	0.07	0.14
W_150234	58.562	9.95	0.08	0.144
W_5745	50.044	9.87	0.08	0.146
W_5803	2.671	8.09	0.18	0.186
W_800194	7.046	10.63	0.04	0.129
W_999000	1.379	10.08	0.07	0.141
W_999002	2.004	7.84	0.2	0.191
W_999005	1.023	10.63	0.04	0.129
W_999010	0.524	10.63	0.04	0.129
W_999012	27.369	10.63	0.04	0.129
W_999013	19.909	10.63	0.04	0.129
W_999014	18.663	10.05	0.07	0.142
W_999015	6.659	7.15	0.23	0.207
W_999017	11.1	6.69	0.26	0.217
W_999019	3.763	6.69	0.26	0.217
W_999022	72.439	5.2	0.16	0.147
W_999025	6.886	6.69	0.26	0.217
W_999028	1.63	6.69	0.26	0.217
W_999029	7.357	6.81	0.25	0.214
W_999142	0.852	6.71	0.26	0.217
W_999146	11.331	10.61	0.04	0.129
W_999153	10.672	10.63	0.04	0.129
W_999157	3.34	6.69	0.26	0.217
W_999158	9.753	7.06	0.21	0.192
W_999163	6.645	10.63	0.04	0.129

Final Calibrated Green & Ampt Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Capillary Suction Head (in)	Comparison with Original WEIGHTED Capillary Suction Head (%)	Calibrated Sat. Hydraulic Conductivity (in/hr)	Comparison with Original WEIGHTED Sat. Hydraulic Conductivity (%)	Calibrated Initial Soil Moisture Deficit (fraction)	Comparison with Original WEIGHTED Initial Soil Moisture Deficit (%)
W_102577	14.351	35%	0.054	35%	0.174	35%
W_102588	14.351	35%	0.054	35%	0.174	35%
W_102853	11.786	35%	0.041	37%	0.144	35%
W_102873	13.500	35%	0.108	35%	0.193	35%
W_102876	13.757	35%	0.081	35%	0.188	35%
W_102880	14.351	35%	0.054	35%	0.174	35%
W_102939	14.351	35%	0.054	35%	0.174	35%
W_102973	13.109	35%	0.122	36%	0.203	35%
W_102990.1	14.351	35%	0.054	35%	0.174	35%
W_102990.2	11.907	35%	0.189	35%	0.228	35%
W_150090	13.541	35%	0.095	36%	0.192	35%
W_150130	10.895	35%	0.243	35%	0.251	35%
W_150150	13.311	35%	0.108	35%	0.197	35%
W_150177	10.287	35%	0.284	35%	0.265	35%
W_150202	13.689	35%	0.095	36%	0.189	35%
W_150234	13.433	35%	0.108	35%	0.194	35%
W_5745	13.325	35%	0.108	35%	0.197	35%
W_5803	10.922	35%	0.243	35%	0.251	35%
W_800194	14.351	35%	0.054	35%	0.174	35%
W_999000	13.608	35%	0.095	36%	0.190	35%
W_999002	10.584	35%	0.270	35%	0.258	35%
W_999005	14.351	35%	0.054	35%	0.174	35%
W_999010	14.351	35%	0.054	35%	0.174	35%
W_999012	14.351	35%	0.054	35%	0.174	35%
W_999013	14.351	35%	0.054	35%	0.174	35%
W_999014	13.568	35%	0.095	36%	0.192	35%
W_999015	9.653	35%	0.311	35%	0.279	35%
W_999017	9.032	35%	0.351	35%	0.293	35%
W_999019	9.032	35%	0.351	35%	0.293	35%
W_999022	7.020	35%	0.216	35%	0.198	35%
W_999025	9.032	35%	0.351	35%	0.293	35%
W_999028	9.032	35%	0.351	35%	0.293	35%
W_999029	9.194	35%	0.338	35%	0.289	35%
W_999142	9.059	35%	0.351	35%	0.293	35%
W_999146	14.324	35%	0.054	35%	0.174	35%
W_999153	14.351	35%	0.054	35%	0.174	35%
W_999157	9.032	35%	0.351	35%	0.293	35%
W_999158	9.531	35%	0.284	35%	0.259	35%
W_999163	14.351	35%	0.054	35%	0.174	35%

Original Depression Storage Values Calculated from GIS Intersection

Subcatchment ID	Depression Stor. for Imp. Portion (in)	Depression Stor. for Perv. Portion (in)
W_102577	0.06	0.266
W_102588	0.06	0.2
W_102853	0.06	0.278
W_102873	0.06	0.289
W_102876	0.06	0.275
W_102880	0.06	0.254
W_102939	0.06	0.283
W_102973	0.06	0.281
W_102990.1	0.06	0.283
W_102990.2	0.06	0.287
W_150090	0.06	0.278
W_150130	0.06	0.254
W_150150	0.06	0.272
W_150177	0.06	0.271
W_150202	0.06	0.292
W_150234	0.06	0.276
W_5745	0.06	0.272
W_5803	0.06	0.296
W_800194	0.06	0.292
W_999000	0.06	0.266
W_999002	0.06	0.264
W_999005	0.06	0.27
W_999010	0.06	0.203
W_999012	0.06	0.253
W_999013	0.06	0.293
W_999014	0.06	0.29
W_999015	0.06	0.289
W_999017	0.06	0.277
W_999019	0.06	0.231
W_999022	0.06	0.254
W_999025	0.06	0.265
W_999028	0.06	0.217
W_999029	0.06	0.221
W_999142	0.06	0.26
W_999146	0.06	0.262
W_999153	0.06	0.278
W_999157	0.06	0.288
W_999158	0.06	0.269
W_999163	0.06	0.265

Final Calibrated Depression Storage Parameters used in InfoSWMM Model

Subcatchment ID	Calibrated Depression Stor. for Perv. Portion (in)	Comparison with Original Depression Stor. for Perv. Portion (in)	Calibrated Depression Stor. for Imp. Portion (in)	Comparison with Original Depression Stor. for Imp. Portion (in)
W_102577	0.372	40%	0.078	30%
W_102588	0.280	40%	0.078	30%
W_102853	0.389	40%	0.078	30%
W_102873	0.405	40%	0.078	30%
W_102876	0.385	40%	0.078	30%
W_102880	0.356	40%	0.078	30%
W_102939	0.396	40%	0.078	30%
W_102973	0.393	40%	0.078	30%
W_102990.1	0.396	40%	0.078	30%
W_102990.2	0.402	40%	0.078	30%
W_150090	0.389	40%	0.078	30%
W_150130	0.356	40%	0.078	30%
W_150150	0.381	40%	0.078	30%
W_150177	0.379	40%	0.078	30%
W_150202	0.409	40%	0.078	30%
W_150234	0.386	40%	0.078	30%
W_5745	0.381	40%	0.078	30%
W_5803	0.414	40%	0.078	30%
W_800194	0.409	40%	0.078	30%
W_999000	0.372	40%	0.078	30%
W_999002	0.370	40%	0.078	30%
W_999005	0.378	40%	0.078	30%
W_999010	0.284	40%	0.078	30%
W_999012	0.354	40%	0.078	30%
W_999013	0.410	40%	0.078	30%
W_999014	0.406	40%	0.078	30%
W_999015	0.405	40%	0.078	30%
W_999017	0.388	40%	0.078	30%
W_999019	0.323	40%	0.078	30%
W_999022	0.356	40%	0.078	30%
W_999025	0.371	40%	0.078	30%
W_999028	0.304	40%	0.078	30%
W_999029	0.309	40%	0.078	30%
W_999142	0.364	40%	0.078	30%
W_999146	0.367	40%	0.078	30%
W_999153	0.389	40%	0.078	30%
W_999157	0.403	40%	0.078	30%
W_999158	0.377	40%	0.078	30%
W_999163	0.371	40%	0.078	30%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
JP_100003	0.333
JP_100028	0.154
JP_100046	0.258
JP_100050	0.331
JP_100055	0.274
JP_100066	0.327
JP_100074	0.322
JP_100085	0.335
JP_100087	0.310
JP_100154	0.169
JP_100183	0.335
JP_100239	0.244
JP_100279	0.325
JP_100283	0.145
JP_100320	0.150
JP_100329	0.364
JP_100442	0.175
JP_100501	0.150
JP_100518	0.224
JP_100520	0.367
JP_100524	0.342
JP_100528	0.239
JP_100533	0.351
JP_100534	0.332
JP_100537	0.000
JP_100538	0.319
JP_100541	0.346
JP_100566	0.166
JP_100574	0.353
JP_100578	0.309
JP_100580	0.311
JP_100581	0.150
JP_100584	0.226
JP_100585	0.321
JP_100592	0.305
JP_100593	0.278
JP_100600	0.150
JP_1007	0.287
JP_100794	0.318
JP_100845	0.310
JP_100848	0.150
JP_100849	0.261
JP_100851	0.350
JP_100853	0.316

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
JP_100003	0.450	35%
JP_100028	0.208	35%
JP_100046	0.348	35%
JP_100050	0.447	35%
JP_100055	0.370	35%
JP_100066	0.441	35%
JP_100074	0.435	35%
JP_100085	0.452	35%
JP_100087	0.419	35%
JP_100154	0.228	35%
JP_100183	0.452	35%
JP_100239	0.329	35%
JP_100279	0.439	35%
JP_100283	0.196	35%
JP_100320	0.203	35%
JP_100329	0.491	35%
JP_100442	0.236	35%
JP_100501	0.203	35%
JP_100518	0.302	35%
JP_100520	0.495	35%
JP_100524	0.462	35%
JP_100528	0.323	35%
JP_100533	0.474	35%
JP_100534	0.448	35%
JP_100537	0.000	0%
JP_100538	0.431	35%
JP_100541	0.467	35%
JP_100566	0.224	35%
JP_100574	0.477	35%
JP_100578	0.417	35%
JP_100580	0.420	35%
JP_100581	0.203	35%
JP_100584	0.305	35%
JP_100585	0.433	35%
JP_100592	0.412	35%
JP_100593	0.375	35%
JP_100600	0.203	35%
JP_1007	0.387	35%
JP_100794	0.429	35%
JP_100845	0.419	35%
JP_100848	0.203	35%
JP_100849	0.352	35%
JP_100851	0.473	35%
JP_100853	0.427	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
JP_100003	1016.216
JP_100028	2710.739
JP_100046	1316.537
JP_100050	92.642
JP_100055	396.832
JP_100066	1613.027
JP_100074	2017.699
JP_100085	4563.346
JP_100087	2472.466
JP_100154	793.414
JP_100183	609.840
JP_100239	651.546
JP_100279	1422.053
JP_100283	1515.888
JP_100320	1085.692
JP_100329	1461.407
JP_100442	1746.756
JP_100501	480.902
JP_100518	785.325
JP_100520	1423.407
JP_100524	826.188
JP_100528	782.467
JP_100533	1183.090
JP_100534	2232.450
JP_100537	722.091
JP_100538	10310.652
JP_100541	1986.881
JP_100566	713.008
JP_100574	504.328
JP_100578	2999.542
JP_100580	6385.460
JP_100581	616.685
JP_100584	345.405
JP_100585	2032.074
JP_100592	360.677
JP_100593	8787.359
JP_100600	410.607
JP_1007	1715.780
JP_100794	1503.767
JP_100845	13364.644
JP_100848	368.808
JP_100849	4004.035
JP_100851	35323.240
JP_100853	1402.632

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
JP_100003	345.500	34%
JP_100028	921.600	34%
JP_100046	447.600	34%
JP_100050	31.500	34%
JP_100055	134.900	34%
JP_100066	548.400	34%
JP_100074	686.000	34%
JP_100085	1551.500	34%
JP_100087	840.700	34%
JP_100154	269.800	34%
JP_100183	207.300	34%
JP_100239	221.500	34%
JP_100279	483.500	34%
JP_100283	515.400	34%
JP_100320	369.100	34%
JP_100329	496.900	34%
JP_100442	593.900	34%
JP_100501	163.500	34%
JP_100518	267.000	34%
JP_100520	484.000	34%
JP_100524	280.900	34%
JP_100528	266.100	34%
JP_100533	402.300	34%
JP_100534	759.100	34%
JP_100537	245.500	34%
JP_100538	3505.600	34%
JP_100541	675.500	34%
JP_100566	242.400	34%
JP_100574	171.500	34%
JP_100578	1019.800	34%
JP_100580	2171.100	34%
JP_100581	209.700	34%
JP_100584	117.400	34%
JP_100585	690.900	34%
JP_100592	122.600	34%
JP_100593	2987.700	34%
JP_100600	139.600	34%
JP_1007	583.400	34%
JP_100794	511.300	34%
JP_100845	4544.000	34%
JP_100848	125.400	34%
JP_100849	1361.400	34%
JP_100851	12009.900	34%
JP_100853	476.900	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
JP_100003	1.946
JP_100028	0.648
JP_100046	3.039
JP_100050	3.433
JP_100055	3.18
JP_100066	3.479
JP_100074	3.004
JP_100085	3.36
JP_100087	3.825
JP_100154	1.932
JP_100183	5.562
JP_100239	1.596
JP_100279	1.545
JP_100283	0.855
JP_100320	1.02
JP_100329	2.92
JP_100442	4.916
JP_100501	0.561
JP_100518	1.098
JP_100520	4.861
JP_100524	4.077
JP_100528	4.251
JP_100533	6.39
JP_100534	4.075
JP_100537	2.842
JP_100538	4.65
JP_100541	3.63
JP_100566	3.163
JP_100574	1.028
JP_100578	1.777
JP_100580	4.607
JP_100581	3.842
JP_100584	7.447
JP_100585	1.944
JP_100592	0.551
JP_100593	0.599
JP_100600	0.363
JP_1007	0.562
JP_100794	5.761
JP_100845	1.883
JP_100848	1.57
JP_100849	1.954
JP_100851	4.867
JP_100853	0.667

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
JP_100003	1.460	-25%
JP_100028	0.486	-25%
JP_100046	2.279	-25%
JP_100050	2.575	-25%
JP_100055	2.385	-25%
JP_100066	2.609	-25%
JP_100074	2.253	-25%
JP_100085	2.520	-25%
JP_100087	2.869	-25%
JP_100154	1.449	-25%
JP_100183	4.172	-25%
JP_100239	1.197	-25%
JP_100279	1.159	-25%
JP_100283	0.641	-25%
JP_100320	0.765	-25%
JP_100329	2.190	-25%
JP_100442	3.687	-25%
JP_100501	0.421	-25%
JP_100518	0.824	-25%
JP_100520	3.646	-25%
JP_100524	3.058	-25%
JP_100528	3.188	-25%
JP_100533	4.793	-25%
JP_100534	3.056	-25%
JP_100537	2.132	-25%
JP_100538	3.488	-25%
JP_100541	2.723	-25%
JP_100566	2.372	-25%
JP_100574	0.771	-25%
JP_100578	1.333	-25%
JP_100580	3.455	-25%
JP_100581	2.882	-25%
JP_100584	5.585	-25%
JP_100585	1.458	-25%
JP_100592	0.413	-25%
JP_100593	0.449	-25%
JP_100600	0.272	-25%
JP_1007	0.422	-25%
JP_100794	4.321	-25%
JP_100845	1.412	-25%
JP_100848	1.178	-25%
JP_100849	1.466	-25%
JP_100851	3.650	-25%
JP_100853	0.500	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
JP_100863	0.298
JP_100866	0.347
JP_1009	0.308
JP_101094	0.196
JP_101100	0.363
JP_101102	0.293
JP_101104	0.225
JP_103047	0.352
JP_103078	0.312
JP_103095	0.312
JP_103125	0.240
JP_103145	0.256
JP_103168	0.349
JP_103174	0.365
JP_103179	0.285
JP_11104	0.329
JP_11170	0.309
JP_11185	0.350
JP_11191	0.298
JP_118	0.249
JP_150034	0.363
JP_200029	0.250
JP_2001	0.272
JP_2003	0.173
JP_2004	0.201
JP_2006	0.284
JP_2013	0.190
JP_2025	0.204
JP_2031	0.150
JP_2044	0.310
JP_2054	0.224
JP_2058	0.288
JP_2070	0.339
JP_2090	0.303
JP_279	0.286
JP_30028	0.296
JP_348	0.304
JP_354	0.279
JP_356	0.380
JP_357	0.172
JP_364	0.000
JP_373	0.272
JP_540	0.150
JP_542	0.390

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
JP_100863	0.402	35%
JP_100866	0.468	35%
JP_1009	0.416	35%
JP_101094	0.265	36%
JP_101100	0.490	35%
JP_101102	0.396	35%
JP_101104	0.304	35%
JP_103047	0.475	35%
JP_103078	0.421	35%
JP_103095	0.421	35%
JP_103125	0.324	35%
JP_103145	0.346	35%
JP_103168	0.471	35%
JP_103174	0.493	35%
JP_103179	0.385	35%
JP_11104	0.444	35%
JP_11170	0.417	35%
JP_11185	0.473	35%
JP_11191	0.402	35%
JP_118	0.336	35%
JP_150034	0.490	35%
JP_200029	0.338	35%
JP_2001	0.367	35%
JP_2003	0.234	35%
JP_2004	0.271	35%
JP_2006	0.383	35%
JP_2013	0.257	36%
JP_2025	0.275	35%
JP_2031	0.203	35%
JP_2044	0.419	35%
JP_2054	0.302	35%
JP_2058	0.389	35%
JP_2070	0.458	35%
JP_2090	0.409	35%
JP_279	0.386	35%
JP_30028	0.400	35%
JP_348	0.410	35%
JP_354	0.377	35%
JP_356	0.513	35%
JP_357	0.232	35%
JP_364	0.000	0%
JP_373	0.367	35%
JP_540	0.203	35%
JP_542	0.527	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
JP_100863	2530.400
JP_100866	3778.830
JP_1009	5384.452
JP_101094	1841.333
JP_101100	843.294
JP_101102	4514.353
JP_101104	2925.925
JP_103047	7400.844
JP_103078	4612.133
JP_103095	5803.934
JP_103125	19924.780
JP_103145	1005.159
JP_103168	1188.000
JP_103174	2581.801
JP_103179	4253.198
JP_11104	5297.767
JP_11170	9408.089
JP_11185	5651.039
JP_11191	11080.793
JP_118	9048.283
JP_150034	20090.743
JP_200029	25756.592
JP_2001	423.154
JP_2003	198.812
JP_2004	231.893
JP_2006	1096.920
JP_2013	574.711
JP_2025	1853.478
JP_2031	336.380
JP_2044	10299.762
JP_2054	863.359
JP_2058	3615.480
JP_2070	1494.108
JP_2090	10414.325
JP_279	3394.631
JP_30028	1520.350
JP_348	12524.807
JP_354	5834.889
JP_356	3111.429
JP_357	191.664
JP_364	434.148
JP_373	628.509
JP_540	265.148
JP_542	484.873

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
JP_100863	860.300	34%
JP_100866	1284.800	34%
JP_1009	1830.700	34%
JP_101094	626.000	34%
JP_101100	286.700	34%
JP_101102	1534.900	34%
JP_101104	994.800	34%
JP_103047	2516.300	34%
JP_103078	1568.100	34%
JP_103095	1973.300	34%
JP_103125	6774.400	34%
JP_103145	341.800	34%
JP_103168	403.900	34%
JP_103174	877.800	34%
JP_103179	1446.100	34%
JP_11104	1801.300	34%
JP_11170	3198.800	34%
JP_11185	1921.300	34%
JP_11191	3767.500	34%
JP_118	3076.400	34%
JP_150034	6830.800	34%
JP_200029	8757.200	34%
JP_2001	143.900	34%
JP_2003	67.600	34%
JP_2004	78.800	34%
JP_2006	372.900	34%
JP_2013	195.400	34%
JP_2025	630.200	34%
JP_2031	114.400	34%
JP_2044	3501.900	34%
JP_2054	293.600	34%
JP_2058	1229.300	34%
JP_2070	508.000	34%
JP_2090	3540.900	34%
JP_279	1154.200	34%
JP_30028	516.900	34%
JP_348	4258.400	34%
JP_354	1983.900	34%
JP_356	1057.900	34%
JP_357	65.200	34%
JP_364	147.600	34%
JP_373	213.700	34%
JP_540	90.100	34%
JP_542	164.900	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
JP_100863	0.935
JP_100866	0.548
JP_1009	0.588
JP_101094	0.607
JP_101100	2.684
JP_101102	3.867
JP_101104	1.03
JP_103047	3.106
JP_103078	2.533
JP_103095	1.108
JP_103125	1.551
JP_103145	0.899
JP_103168	2.111
JP_103174	2.813
JP_103179	1.721
JP_11104	3.399
JP_11170	1.48
JP_11185	1.485
JP_11191	0.937
JP_118	1.252
JP_150034	1.611
JP_200029	2.432
JP_2001	2.774
JP_2003	2.004
JP_2004	1.74
JP_2006	3.314
JP_2013	1.607
JP_2025	2.876
JP_2031	0.692
JP_2044	4.61
JP_2054	3.657
JP_2058	3.06
JP_2070	5.759
JP_2090	1.621
JP_279	1.242
JP_30028	0.997
JP_348	3.236
JP_354	1.909
JP_356	5.72
JP_357	1.46
JP_364	2.231
JP_373	1.848
JP_540	0.641
JP_542	1.336

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
JP_100863	0.701	-25%
JP_100866	0.411	-25%
JP_1009	0.441	-25%
JP_101094	0.455	-25%
JP_101100	2.013	-25%
JP_101102	2.900	-25%
JP_101104	0.773	-25%
JP_103047	2.330	-25%
JP_103078	1.900	-25%
JP_103095	0.831	-25%
JP_103125	1.163	-25%
JP_103145	0.674	-25%
JP_103168	1.583	-25%
JP_103174	2.110	-25%
JP_103179	1.291	-25%
JP_11104	2.549	-25%
JP_11170	1.110	-25%
JP_11185	1.114	-25%
JP_11191	0.703	-25%
JP_118	0.939	-25%
JP_150034	1.208	-25%
JP_200029	1.824	-25%
JP_2001	2.081	-25%
JP_2003	1.503	-25%
JP_2004	1.305	-25%
JP_2006	2.486	-25%
JP_2013	1.205	-25%
JP_2025	2.157	-25%
JP_2031	0.519	-25%
JP_2044	3.458	-25%
JP_2054	2.743	-25%
JP_2058	2.295	-25%
JP_2070	4.319	-25%
JP_2090	1.216	-25%
JP_279	0.932	-25%
JP_30028	0.748	-25%
JP_348	2.427	-25%
JP_354	1.432	-25%
JP_356	4.290	-25%
JP_357	1.095	-25%
JP_364	1.673	-25%
JP_373	1.386	-25%
JP_540	0.481	-25%
JP_542	1.002	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
JP_5829	0.339
JP_5834	0.228
JP_5837	0.232
JP_5841	0.303
JP_5844	0.285
JP_6003	0.346
JP_6005	0.356
JP_6008	0.252
JP_6032	0.150
JP_750	0.322
JP_800222	0.210
JP_800248	0.283
JP_800254	0.199
JP_800263	0.331
JP_800274	0.221
JP_800288	0.346
JP_800291	0.298
JP_800397	0.165
JP_800431	0.290
JP_800433	0.368
JP_800436	0.328
JP_800437	0.319
JP_999032	0.000
JP_999035	0.362
JP_999038	0.352
JP_999039	0.298
JP_999042	0.176
JP_999046	0.301
JP_999048	0.224
JP_999049	0.293
JP_999050	0.327
JP_999054	0.300
JP_999057	0.319
JP_999058	0.280
JP_999059	0.311
JP_999167	0.206
101938	0.335
SL_100889	0.152
SL_1016	0.321
SL_1017	0.274
SL_1021	0.356
SL_1027	0.239
SL_1031	0.246
SL_1033	0.353

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
JP_5829	0.458	35%
JP_5834	0.308	35%
JP_5837	0.313	35%
JP_5841	0.409	35%
JP_5844	0.385	35%
JP_6003	0.467	35%
JP_6005	0.481	35%
JP_6008	0.340	35%
JP_6032	0.203	35%
JP_750	0.435	35%
JP_800222	0.284	35%
JP_800248	0.382	35%
JP_800254	0.269	35%
JP_800263	0.447	35%
JP_800274	0.298	35%
JP_800288	0.467	35%
JP_800291	0.402	35%
JP_800397	0.223	35%
JP_800431	0.392	35%
JP_800433	0.497	35%
JP_800436	0.443	35%
JP_800437	0.431	35%
JP_999032	0.000	0%
JP_999035	0.489	35%
JP_999038	0.475	35%
JP_999039	0.402	35%
JP_999042	0.238	35%
JP_999046	0.406	35%
JP_999048	0.302	35%
JP_999049	0.396	35%
JP_999050	0.441	35%
JP_999054	0.405	35%
JP_999057	0.431	35%
JP_999058	0.378	35%
JP_999059	0.420	35%
JP_999167	0.278	35%
101938	0.452	35%
SL_100889	0.205	35%
SL_1016	0.433	35%
SL_1017	0.370	35%
SL_1021	0.481	35%
SL_1027	0.323	35%
SL_1031	0.332	35%
SL_1033	0.477	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
JP_5829	5994.292
JP_5834	1085.156
JP_5837	360.677
JP_5841	2919.827
JP_5844	2394.058
JP_6003	18027.306
JP_6005	1959.329
JP_6008	456.099
JP_6032	1897.474
JP_750	4435.683
JP_800222	357.021
JP_800248	6314.458
JP_800254	1400.850
JP_800263	1052.794
JP_800274	957.801
JP_800288	1579.717
JP_800291	7587.716
JP_800397	1110.296
JP_800431	553.212
JP_800433	3801.917
JP_800436	10441.516
JP_800437	3872.000
JP_999032	1509.354
JP_999035	3454.996
JP_999038	5384.016
JP_999039	9147.164
JP_999042	6642.464
JP_999046	1952.398
JP_999048	6143.702
JP_999049	5339.149
JP_999050	4565.088
JP_999054	14470.632
JP_999057	22733.528
JP_999058	1732.236
JP_999059	11487.208
JP_999167	10399.514
101938	1827.342
SL_100889	2706.165
SL_1016	258.009
SL_1017	901.742
SL_1021	2772.952
SL_1027	242.194
SL_1031	9964.786
SL_1033	1087.258

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
JP_5829	2038.100	34%
JP_5834	369.000	34%
JP_5837	122.600	34%
JP_5841	992.700	34%
JP_5844	814.000	34%
JP_6003	6129.300	34%
JP_6005	666.200	34%
JP_6008	155.100	34%
JP_6032	645.200	34%
JP_750	1508.100	34%
JP_800222	121.400	34%
JP_800248	2146.900	34%
JP_800254	476.300	34%
JP_800263	358.000	34%
JP_800274	325.700	34%
JP_800288	537.100	34%
JP_800291	2579.800	34%
JP_800397	377.500	34%
JP_800431	188.100	34%
JP_800433	1292.600	34%
JP_800436	3550.100	34%
JP_800437	1316.500	34%
JP_999032	513.200	34%
JP_999035	1174.700	34%
JP_999038	1830.600	34%
JP_999039	3110.000	34%
JP_999042	2258.500	34%
JP_999046	663.800	34%
JP_999048	2088.900	34%
JP_999049	1815.300	34%
JP_999050	1552.100	34%
JP_999054	4920.000	34%
JP_999057	7729.400	34%
JP_999058	588.900	34%
JP_999059	3905.600	34%
JP_999167	3535.800	34%
101938	621.300	34%
SL_100889	920.100	34%
SL_1016	87.700	34%
SL_1017	306.600	34%
SL_1021	942.800	34%
SL_1027	82.300	34%
SL_1031	3388.000	34%
SL_1033	369.700	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
JP_5829	3.901
JP_5834	1.352
JP_5837	1.005
JP_5841	0.892
JP_5844	0.845
JP_6003	5.436
JP_6005	5.366
JP_6008	3.708
JP_6032	3.985
JP_750	3.73
JP_800222	0.635
JP_800248	1.043
JP_800254	0.902
JP_800263	1.114
JP_800274	0.981
JP_800288	1.01
JP_800291	1.161
JP_800397	1.057
JP_800431	5.91
JP_800433	7.465
JP_800436	3.54
JP_800437	4.998
JP_999032	0.919
JP_999035	5.223
JP_999038	7.009
JP_999039	1.733
JP_999042	0.972
JP_999046	2.141
JP_999048	0.818
JP_999049	0.813
JP_999050	1.007
JP_999054	2.117
JP_999057	1.963
JP_999058	1.397
JP_999059	1.717
JP_999167	1.582
101938	4.223
SL_100889	5.437
SL_1016	2.679
SL_1017	4.516
SL_1021	4.663
SL_1027	4.148
SL_1031	1.293
SL_1033	4.388

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
JP_5829	2.926	-25%
JP_5834	1.014	-25%
JP_5837	0.754	-25%
JP_5841	0.669	-25%
JP_5844	0.634	-25%
JP_6003	4.077	-25%
JP_6005	4.025	-25%
JP_6008	2.781	-25%
JP_6032	2.989	-25%
JP_750	2.798	-25%
JP_800222	0.476	-25%
JP_800248	0.782	-25%
JP_800254	0.677	-25%
JP_800263	0.836	-25%
JP_800274	0.736	-25%
JP_800288	0.758	-25%
JP_800291	0.871	-25%
JP_800397	0.793	-25%
JP_800431	4.433	-25%
JP_800433	5.599	-25%
JP_800436	2.655	-25%
JP_800437	3.749	-25%
JP_999032	0.689	-25%
JP_999035	3.917	-25%
JP_999038	5.257	-25%
JP_999039	1.300	-25%
JP_999042	0.729	-25%
JP_999046	1.606	-25%
JP_999048	0.614	-25%
JP_999049	0.610	-25%
JP_999050	0.755	-25%
JP_999054	1.588	-25%
JP_999057	1.472	-25%
JP_999058	1.048	-25%
JP_999059	1.288	-25%
JP_999167	1.187	-25%
101938	3.167	-25%
SL_100889	4.078	-25%
SL_1016	2.009	-25%
SL_1017	3.387	-25%
SL_1021	3.497	-25%
SL_1027	3.111	-25%
SL_1031	0.970	-25%
SL_1033	3.291	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
SL_1034	0.338
SL_1041	0.318
SL_1042	0.271
SL_1058	0.232
SL_1061	0.279
SL_1081	0.267
SL_1086	0.365
SL_1092	0.316
SL_1101	0.328
SL_1114	0.316
SL_1115	0.305
SL_1126	0.286
SL_1137	0.238
SL_1142	0.257
SL_1150	0.212
SL_1163	0.272
SL_1168	0.222
SL_1174	0.297
SL_1180	0.273
SL_1213	0.328
SL_1248	0.354
SL_1250	0.223
SL_1265	0.248
SL_1275	0.305
SL_1281	0.189
SL_1291	0.347
SL_1303	0.333
SL_1304	0.251
SL_1317	0.287
SL_1325	0.248
SL_1343	0.294
SL_1393	0.255
SL_1415	0.294
SL_1443	0.285
SL_1450	0.364
SL_1455	0.304
SL_1469	0.230
SL_1486	0.150
SL_1498	0.163
SL_1518	0.269
SL_1536	0.218
SL_1547	0.326
SL_1576	0.292
SL_1586	0.282

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
SL_1034	0.456	35%
SL_1041	0.429	35%
SL_1042	0.366	35%
SL_1058	0.313	35%
SL_1061	0.377	35%
SL_1081	0.360	35%
SL_1086	0.493	35%
SL_1092	0.427	35%
SL_1101	0.443	35%
SL_1114	0.427	35%
SL_1115	0.412	35%
SL_1126	0.386	35%
SL_1137	0.321	35%
SL_1142	0.347	35%
SL_1150	0.286	35%
SL_1163	0.367	35%
SL_1168	0.300	35%
SL_1174	0.401	35%
SL_1180	0.369	35%
SL_1213	0.443	35%
SL_1248	0.478	35%
SL_1250	0.301	35%
SL_1265	0.335	35%
SL_1275	0.412	35%
SL_1281	0.255	35%
SL_1291	0.468	35%
SL_1303	0.450	35%
SL_1304	0.339	35%
SL_1317	0.387	35%
SL_1325	0.335	35%
SL_1343	0.397	35%
SL_1393	0.344	35%
SL_1415	0.397	35%
SL_1443	0.385	35%
SL_1450	0.491	35%
SL_1455	0.410	35%
SL_1469	0.311	35%
SL_1486	0.203	35%
SL_1498	0.220	35%
SL_1518	0.363	35%
SL_1536	0.294	35%
SL_1547	0.440	35%
SL_1576	0.394	35%
SL_1586	0.381	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
SL_1034	485.694
SL_1041	605.255
SL_1042	5549.980
SL_1058	1382.777
SL_1061	4270.802
SL_1081	3494.819
SL_1086	6265.670
SL_1092	759.686
SL_1101	572.088
SL_1114	758.380
SL_1115	3146.666
SL_1126	1183.649
SL_1137	1678.028
SL_1142	1710.762
SL_1150	1464.487
SL_1163	3615.044
SL_1168	767.326
SL_1174	3114.976
SL_1180	501.835
SL_1213	25217.320
SL_1248	6904.260
SL_1250	5097.623
SL_1265	752.556
SL_1275	1636.549
SL_1281	584.949
SL_1291	10764.112
SL_1303	1007.107
SL_1304	4334.470
SL_1317	1542.024
SL_1325	793.916
SL_1343	4180.770
SL_1393	644.432
SL_1415	37596.636
SL_1443	700.748
SL_1450	108.062
SL_1455	3389.249
SL_1469	1173.340
SL_1486	810.778
SL_1498	1226.486
SL_1518	1542.941
SL_1536	3746.596
SL_1547	2463.076
SL_1576	6425.100
SL_1586	630.230

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
SL_1034	165.100	34%
SL_1041	205.800	34%
SL_1042	1887.000	34%
SL_1058	470.200	34%
SL_1061	1452.100	34%
SL_1081	1188.200	34%
SL_1086	2130.300	34%
SL_1092	258.300	34%
SL_1101	194.500	34%
SL_1114	257.900	34%
SL_1115	1069.900	34%
SL_1126	402.400	34%
SL_1137	570.500	34%
SL_1142	581.700	34%
SL_1150	497.900	34%
SL_1163	1229.100	34%
SL_1168	260.900	34%
SL_1174	1059.100	34%
SL_1180	170.600	34%
SL_1213	8573.900	34%
SL_1248	2347.500	34%
SL_1250	1733.200	34%
SL_1265	255.900	34%
SL_1275	556.400	34%
SL_1281	198.900	34%
SL_1291	3659.800	34%
SL_1303	342.400	34%
SL_1304	1473.700	34%
SL_1317	524.300	34%
SL_1325	269.900	34%
SL_1343	1421.500	34%
SL_1393	219.100	34%
SL_1415	12782.800	34%
SL_1443	238.200	34%
SL_1450	36.800	34%
SL_1455	1152.300	34%
SL_1469	398.900	34%
SL_1486	275.700	34%
SL_1498	417.000	34%
SL_1518	524.600	34%
SL_1536	1273.800	34%
SL_1547	837.500	34%
SL_1576	2184.500	34%
SL_1586	214.300	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
SL_1034	3.985
SL_1041	4.659
SL_1042	3.524
SL_1058	2.5
SL_1061	3.765
SL_1081	3.426
SL_1086	4.82
SL_1092	3.768
SL_1101	2.318
SL_1114	2.058
SL_1115	2.792
SL_1126	4.34
SL_1137	3.835
SL_1142	3.474
SL_1150	2.725
SL_1163	2.424
SL_1168	2.633
SL_1174	2.597
SL_1180	2.249
SL_1213	3.393
SL_1248	4.335
SL_1250	2.771
SL_1265	4.201
SL_1275	2.151
SL_1281	4.598
SL_1291	4.091
SL_1303	5.136
SL_1304	1.684
SL_1317	2.951
SL_1325	2.241
SL_1343	2.917
SL_1393	4.176
SL_1415	2.953
SL_1443	1.522
SL_1450	1.11
SL_1455	5.093
SL_1469	3.099
SL_1486	3.458
SL_1498	2.847
SL_1518	5.049
SL_1536	4.568
SL_1547	4.174
SL_1576	5.088
SL_1586	3.81

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
SL_1034	2.989	-25%
SL_1041	3.494	-25%
SL_1042	2.643	-25%
SL_1058	1.875	-25%
SL_1061	2.824	-25%
SL_1081	2.570	-25%
SL_1086	3.615	-25%
SL_1092	2.826	-25%
SL_1101	1.739	-25%
SL_1114	1.544	-25%
SL_1115	2.094	-25%
SL_1126	3.255	-25%
SL_1137	2.876	-25%
SL_1142	2.606	-25%
SL_1150	2.044	-25%
SL_1163	1.818	-25%
SL_1168	1.975	-25%
SL_1174	1.948	-25%
SL_1180	1.687	-25%
SL_1213	2.545	-25%
SL_1248	3.251	-25%
SL_1250	2.078	-25%
SL_1265	3.151	-25%
SL_1275	1.613	-25%
SL_1281	3.449	-25%
SL_1291	3.068	-25%
SL_1303	3.852	-25%
SL_1304	1.263	-25%
SL_1317	2.213	-25%
SL_1325	1.681	-25%
SL_1343	2.188	-25%
SL_1393	3.132	-25%
SL_1415	2.215	-25%
SL_1443	1.142	-25%
SL_1450	0.833	-25%
SL_1455	3.820	-25%
SL_1469	2.324	-25%
SL_1486	2.594	-25%
SL_1498	2.135	-25%
SL_1518	3.787	-25%
SL_1536	3.426	-25%
SL_1547	3.131	-25%
SL_1576	3.816	-25%
SL_1586	2.858	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
SL_1590	0.236
SL_1601	0.284
SL_1617	0.237
SL_192	0.225
SL_324	0.322
SL_4469	0.305
SL_5000	0.232
SL_5009	0.327
SL_5024	0.260
SL_5028	0.299
SL_5032	0.323
SL_5033	0.294
SL_5040	0.290
SL_5045	0.233
SL_5046	0.306
SL_5049	0.316
SL_5074	0.291
SL_5081	0.254
SL_5127	0.256
SL_5129	0.301
SL_5143	0.228
SL_5159	0.343
SL_5198	0.293
SL_5213	0.248
SL_5231	0.350
SL_5237	0.300
SL_5250	0.302
SL_5254	0.338
SL_5257	0.287
SL_5261	0.344
SL_5262	0.340
SL_5264	0.339
SL_5272	0.320
SL_5273	0.265
SL_5283	0.346
SL_5333	0.247
SL_5340	0.388
SL_5342	0.294
SL_5412	0.346
SL_5417	0.269
SL_5430	0.311
SL_5431	0.278
SL_5438	0.333
SL_5448	0.161

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
SL_1590	0.319	35%
SL_1601	0.383	35%
SL_1617	0.320	35%
SL_192	0.304	35%
SL_324	0.435	35%
SL_4469	0.412	35%
SL_5000	0.313	35%
SL_5009	0.441	35%
SL_5024	0.351	35%
SL_5028	0.404	35%
SL_5032	0.436	35%
SL_5033	0.397	35%
SL_5040	0.392	35%
SL_5045	0.315	35%
SL_5046	0.413	35%
SL_5049	0.427	35%
SL_5074	0.393	35%
SL_5081	0.343	35%
SL_5127	0.346	35%
SL_5129	0.406	35%
SL_5143	0.308	35%
SL_5159	0.463	35%
SL_5198	0.396	35%
SL_5213	0.335	35%
SL_5231	0.473	35%
SL_5237	0.405	35%
SL_5250	0.408	35%
SL_5254	0.456	35%
SL_5257	0.387	35%
SL_5261	0.464	35%
SL_5262	0.459	35%
SL_5264	0.458	35%
SL_5272	0.432	35%
SL_5273	0.358	35%
SL_5283	0.467	35%
SL_5333	0.333	35%
SL_5340	0.524	35%
SL_5342	0.397	35%
SL_5412	0.467	35%
SL_5417	0.363	35%
SL_5430	0.420	35%
SL_5431	0.375	35%
SL_5438	0.450	35%
SL_5448	0.217	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
SL_1590	1830.015
SL_1601	5840.960
SL_1617	5029.438
SL_192	6050.484
SL_324	2385.254
SL_4469	12940.805
SL_5000	551.571
SL_5009	1971.090
SL_5024	1362.806
SL_5028	6209.280
SL_5032	3236.944
SL_5033	2178.000
SL_5040	516.689
SL_5045	1198.384
SL_5046	684.028
SL_5049	3131.708
SL_5074	3149.678
SL_5081	8736.200
SL_5127	5037.170
SL_5129	5188.848
SL_5143	5290.514
SL_5159	1176.120
SL_5198	3895.439
SL_5213	2834.014
SL_5231	1994.177
SL_5237	1360.755
SL_5250	2324.362
SL_5254	5669.770
SL_5257	962.676
SL_5261	3106.699
SL_5262	6222.110
SL_5264	1134.154
SL_5272	2989.703
SL_5273	1924.868
SL_5283	508.550
SL_5333	1649.182
SL_5340	2480.169
SL_5342	1029.261
SL_5412	3740.776
SL_5417	2833.962
SL_5430	2475.079
SL_5431	418.176
SL_5438	1535.926
SL_5448	278.784

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
SL_1590	622.200	34%
SL_1601	1985.900	34%
SL_1617	1710.000	34%
SL_192	2057.200	34%
SL_324	811.000	34%
SL_4469	4399.900	34%
SL_5000	187.500	34%
SL_5009	670.200	34%
SL_5024	463.400	34%
SL_5028	2111.200	34%
SL_5032	1100.500	34%
SL_5033	740.500	34%
SL_5040	175.700	34%
SL_5045	407.500	34%
SL_5046	232.600	34%
SL_5049	1064.800	34%
SL_5074	1070.900	34%
SL_5081	2970.300	34%
SL_5127	1712.600	34%
SL_5129	1764.200	34%
SL_5143	1798.800	34%
SL_5159	399.900	34%
SL_5198	1324.400	34%
SL_5213	963.600	34%
SL_5231	678.000	34%
SL_5237	462.700	34%
SL_5250	790.300	34%
SL_5254	1927.700	34%
SL_5257	327.300	34%
SL_5261	1056.300	34%
SL_5262	2115.500	34%
SL_5264	385.600	34%
SL_5272	1016.500	34%
SL_5273	654.500	34%
SL_5283	172.900	34%
SL_5333	560.700	34%
SL_5340	843.300	34%
SL_5342	350.000	34%
SL_5412	1271.900	34%
SL_5417	963.600	34%
SL_5430	841.500	34%
SL_5431	142.200	34%
SL_5438	522.200	34%
SL_5448	94.800	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
SL_1590	4.649
SL_1601	3.668
SL_1617	4.86
SL_192	2.607
SL_324	5.16
SL_4469	2.708
SL_5000	1.807
SL_5009	1.344
SL_5024	2.823
SL_5028	4.394
SL_5032	7.149
SL_5033	5.075
SL_5040	4.75
SL_5045	2.707
SL_5046	1.083
SL_5049	2.958
SL_5074	3.902
SL_5081	2.972
SL_5127	2.343
SL_5129	4.022
SL_5143	1.76
SL_5159	4.21
SL_5198	3.645
SL_5213	2.788
SL_5231	4.076
SL_5237	3.662
SL_5250	3.963
SL_5254	3.579
SL_5257	2.235
SL_5261	3.828
SL_5262	2.341
SL_5264	2.864
SL_5272	3.666
SL_5273	4.998
SL_5283	5.297
SL_5333	1.888
SL_5340	4.542
SL_5342	2.975
SL_5412	5.183
SL_5417	3.572
SL_5430	4.214
SL_5431	2.182
SL_5438	4.275
SL_5448	0.551

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
SL_1590	3.487	-25%
SL_1601	2.751	-25%
SL_1617	3.645	-25%
SL_192	1.955	-25%
SL_324	3.870	-25%
SL_4469	2.031	-25%
SL_5000	1.355	-25%
SL_5009	1.008	-25%
SL_5024	2.117	-25%
SL_5028	3.296	-25%
SL_5032	5.362	-25%
SL_5033	3.806	-25%
SL_5040	3.563	-25%
SL_5045	2.030	-25%
SL_5046	0.812	-25%
SL_5049	2.219	-25%
SL_5074	2.927	-25%
SL_5081	2.229	-25%
SL_5127	1.757	-25%
SL_5129	3.017	-25%
SL_5143	1.320	-25%
SL_5159	3.158	-25%
SL_5198	2.734	-25%
SL_5213	2.091	-25%
SL_5231	3.057	-25%
SL_5237	2.747	-25%
SL_5250	2.972	-25%
SL_5254	2.684	-25%
SL_5257	1.676	-25%
SL_5261	2.871	-25%
SL_5262	1.756	-25%
SL_5264	2.148	-25%
SL_5272	2.750	-25%
SL_5273	3.749	-25%
SL_5283	3.973	-25%
SL_5333	1.416	-25%
SL_5340	3.407	-25%
SL_5342	2.231	-25%
SL_5412	3.887	-25%
SL_5417	2.679	-25%
SL_5430	3.161	-25%
SL_5431	1.637	-25%
SL_5438	3.206	-25%
SL_5448	0.413	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
SL_5480	0.285
SL_5508	0.271
SL_5521	0.311
SL_5538	0.308
SL_5549	0.384
SL_5601	0.224
SL_5605	0.344
SL_5608	0.356
SL_5800	0.354
SL_5805	0.336
SL_5816	0.214
SL_5838	0.329
SL_600	0.298
SL_6034	0.284
SL_800125	0.290
SL_800131	0.215
SL_800149	0.256
SL_99139	0.322
SL_999062	0.345
SL_999063	0.296
SL_999064	0.281
SL_999065	0.210
SL_999066	0.377
SL_999067	0.258
SL_999068	0.249
SL_999069	0.248
SL_999070	0.260
SL_999071	0.296
SL_999072	0.294
SL_999073	0.297
SL_999074	0.364
SL_999075	0.298
SL_999078	0.299
SL_999079	0.312
SL_999080	0.291
SL_999082	0.334
SL_999083	0.320
SL_999085	0.322
SL_999087	0.292
SL_999088	0.358
SL_999089	0.338
SL_999091	0.255
SL_999092	0.211
SL_999093	0.267

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
SL_5480	0.385	35%
SL_5508	0.366	35%
SL_5521	0.420	35%
SL_5538	0.416	35%
SL_5549	0.518	35%
SL_5601	0.302	35%
SL_5605	0.464	35%
SL_5608	0.481	35%
SL_5800	0.478	35%
SL_5805	0.454	35%
SL_5816	0.289	35%
SL_5838	0.444	35%
SL_600	0.402	35%
SL_6034	0.383	35%
SL_800125	0.392	35%
SL_800131	0.290	35%
SL_800149	0.346	35%
SL_99139	0.435	35%
SL_999062	0.466	35%
SL_999063	0.400	35%
SL_999064	0.379	35%
SL_999065	0.284	35%
SL_999066	0.509	35%
SL_999067	0.348	35%
SL_999068	0.336	35%
SL_999069	0.335	35%
SL_999070	0.351	35%
SL_999071	0.400	35%
SL_999072	0.397	35%
SL_999073	0.401	35%
SL_999074	0.491	35%
SL_999075	0.402	35%
SL_999078	0.404	35%
SL_999079	0.421	35%
SL_999080	0.393	35%
SL_999082	0.451	35%
SL_999083	0.432	35%
SL_999085	0.435	35%
SL_999087	0.394	35%
SL_999088	0.483	35%
SL_999089	0.456	35%
SL_999091	0.344	35%
SL_999092	0.285	35%
SL_999093	0.360	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
SL_5480	1931.886
SL_5508	5197.733
SL_5521	1433.560
SL_5538	1252.350
SL_5549	6842.405
SL_5601	277.200
SL_5605	2350.062
SL_5608	275.880
SL_5800	2694.622
SL_5805	3025.678
SL_5816	1934.935
SL_5838	2102.641
SL_600	1710.889
SL_6034	3491.253
SL_800125	3445.367
SL_800131	1813.680
SL_800149	1962.814
SL_99139	5189.738
SL_999062	2631.444
SL_999063	1202.256
SL_999064	815.100
SL_999065	519.469
SL_999066	14826.082
SL_999067	2107.433
SL_999068	1970.219
SL_999069	732.244
SL_999070	4074.312
SL_999071	1724.105
SL_999072	2336.123
SL_999073	6602.825
SL_999074	1013.641
SL_999075	1258.884
SL_999078	4929.622
SL_999079	2361.920
SL_999080	1506.717
SL_999082	4278.028
SL_999083	1688.821
SL_999085	2487.004
SL_999087	14255.881
SL_999088	3907.768
SL_999089	940.437
SL_999091	4684.442
SL_999092	1830.801
SL_999093	6323.130

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
SL_5480	656.800	34%
SL_5508	1767.200	34%
SL_5521	487.400	34%
SL_5538	425.800	34%
SL_5549	2326.400	34%
SL_5601	94.200	34%
SL_5605	799.000	34%
SL_5608	93.800	34%
SL_5800	916.200	34%
SL_5805	1028.700	34%
SL_5816	657.900	34%
SL_5838	714.900	34%
SL_600	581.700	34%
SL_6034	1187.000	34%
SL_800125	1171.400	34%
SL_800131	616.700	34%
SL_800149	667.400	34%
SL_99139	1764.500	34%
SL_999062	894.700	34%
SL_999063	408.800	34%
SL_999064	277.100	34%
SL_999065	176.600	34%
SL_999066	5040.900	34%
SL_999067	716.500	34%
SL_999068	669.900	34%
SL_999069	248.900	34%
SL_999070	1385.300	34%
SL_999071	586.200	34%
SL_999072	794.300	34%
SL_999073	2245.000	34%
SL_999074	344.600	34%
SL_999075	428.000	34%
SL_999078	1676.100	34%
SL_999079	803.000	34%
SL_999080	512.300	34%
SL_999082	1454.500	34%
SL_999083	574.200	34%
SL_999085	845.600	34%
SL_999087	4847.000	34%
SL_999088	1328.700	34%
SL_999089	319.700	34%
SL_999091	1592.700	34%
SL_999092	622.500	34%
SL_999093	2149.900	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
SL_5480	4.106
SL_5508	3.915
SL_5521	5.124
SL_5538	2.9
SL_5549	5.206
SL_5601	0.938
SL_5605	5.255
SL_5608	2.605
SL_5800	4.532
SL_5805	7.22
SL_5816	0.59
SL_5838	4.372
SL_600	2.978
SL_6034	2.708
SL_800125	4.815
SL_800131	4.729
SL_800149	5.654
SL_99139	3.905
SL_999062	4.712
SL_999063	2.782
SL_999064	3.135
SL_999065	3.246
SL_999066	4.302
SL_999067	2.993
SL_999068	4.011
SL_999069	3.486
SL_999070	3.18
SL_999071	5.076
SL_999072	3.587
SL_999073	4.523
SL_999074	3.683
SL_999075	4.193
SL_999078	4.24
SL_999079	4.899
SL_999080	3.951
SL_999082	3.434
SL_999083	4.266
SL_999085	4.64
SL_999087	3.859
SL_999088	5.97
SL_999089	5.708
SL_999091	3.983
SL_999092	2.42
SL_999093	3.409

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
SL_5480	3.080	-25%
SL_5508	2.936	-25%
SL_5521	3.843	-25%
SL_5538	2.175	-25%
SL_5549	3.905	-25%
SL_5601	0.704	-25%
SL_5605	3.941	-25%
SL_5608	1.954	-25%
SL_5800	3.399	-25%
SL_5805	5.415	-25%
SL_5816	0.443	-25%
SL_5838	3.279	-25%
SL_600	2.234	-25%
SL_6034	2.031	-25%
SL_800125	3.611	-25%
SL_800131	3.547	-25%
SL_800149	4.241	-25%
SL_99139	2.929	-25%
SL_999062	3.534	-25%
SL_999063	2.087	-25%
SL_999064	2.351	-25%
SL_999065	2.435	-25%
SL_999066	3.227	-25%
SL_999067	2.245	-25%
SL_999068	3.008	-25%
SL_999069	2.615	-25%
SL_999070	2.385	-25%
SL_999071	3.807	-25%
SL_999072	2.690	-25%
SL_999073	3.392	-25%
SL_999074	2.762	-25%
SL_999075	3.145	-25%
SL_999078	3.180	-25%
SL_999079	3.674	-25%
SL_999080	2.963	-25%
SL_999082	2.576	-25%
SL_999083	3.200	-25%
SL_999085	3.480	-25%
SL_999087	2.894	-25%
SL_999088	4.478	-25%
SL_999089	4.281	-25%
SL_999091	2.987	-25%
SL_999092	1.815	-25%
SL_999093	2.557	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas		Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model			Original Subcatchment Width Calculated from Subcatchment Area and Length		Final Calibrated Subcatchment Width used in InfoSWMM Model			Original Subcatchment Slope Calculated from Longest Flow Paths and TIN		Final Calibrated Subcatchment Slope used in InfoSWMM Model		
Subcatchment ID	Manning's N for Pervious Portion	Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)	Subcatchment ID	Subcatchment Width (ft)	Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)	Subcatchment ID	Subcatchment Slope (%)	Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
SL_999094	0.288	SL_999094	0.389	35%	SL_999094	1726.463	SL_999094	587.000	34%	SL_999094	5.906	SL_999094	4.430	-25%
SL_999095	0.283	SL_999095	0.382	35%	SL_999095	6706.586	SL_999095	2280.200	34%	SL_999095	3.002	SL_999095	2.252	-25%
SL_999096	0.323	SL_999096	0.436	35%	SL_999096	1040.666	SL_999096	353.800	34%	SL_999096	2.644	SL_999096	1.983	-25%
SL_999097	0.310	SL_999097	0.419	35%	SL_999097	3632.610	SL_999097	1235.100	34%	SL_999097	3.424	SL_999097	2.568	-25%
SL_999098	0.300	SL_999098	0.405	35%	SL_999098	3689.968	SL_999098	1254.600	34%	SL_999098	3.46	SL_999098	2.595	-25%
SL_999099	0.211	SL_999099	0.285	35%	SL_999099	1372.140	SL_999099	466.500	34%	SL_999099	1.719	SL_999099	1.289	-25%
SL_999100	0.216	SL_999100	0.292	35%	SL_999100	2562.120	SL_999100	871.100	34%	SL_999100	2.469	SL_999100	1.852	-25%
SL_999101	0.290	SL_999101	0.392	35%	SL_999101	4109.450	SL_999101	1397.200	34%	SL_999101	3.477	SL_999101	2.608	-25%
SL_999102	0.295	SL_999102	0.398	35%	SL_999102	3748.338	SL_999102	1274.400	34%	SL_999102	3.506	SL_999102	2.630	-25%
SL_999104	0.249	SL_999104	0.336	35%	SL_999104	8853.291	SL_999104	3010.100	34%	SL_999104	3.21	SL_999104	2.408	-25%
SL_999115	0.259	SL_999115	0.350	35%	SL_999115	3831.206	SL_999115	1302.600	34%	SL_999115	3.679	SL_999115	2.759	-25%
SL_999117	0.317	SL_999117	0.428	35%	SL_999117	1059.441	SL_999117	360.200	34%	SL_999117	2.424	SL_999117	1.818	-25%
SL_999120	0.260	SL_999120	0.351	35%	SL_999120	2252.275	SL_999120	765.800	34%	SL_999120	2.943	SL_999120	2.207	-25%
SL_999121	0.309	SL_999121	0.417	35%	SL_999121	468.706	SL_999121	159.400	34%	SL_999121	6.156	SL_999121	4.617	-25%
SL_999122	0.293	SL_999122	0.396	35%	SL_999122	4045.955	SL_999122	1375.600	34%	SL_999122	4.245	SL_999122	3.184	-25%
SL_999123	0.150	SL_999123	0.203	36%	SL_999123	338.163	SL_999123	115.000	34%	SL_999123	0.645	SL_999123	0.484	-25%
SL_999124	0.326	SL_999124	0.440	35%	SL_999124	3803.635	SL_999124	1293.200	34%	SL_999124	4.469	SL_999124	3.352	-25%
SL_999125	0.150	SL_999125	0.203	35%	SL_999125	1196.448	SL_999125	406.800	34%	SL_999125	2.391	SL_999125	1.793	-25%
SL_999128	0.281	SL_999128	0.379	35%	SL_999128	57747.056	SL_999128	19634.000	34%	SL_999128	1.891	SL_999128	1.418	-25%
SL_999133	0.210	SL_999133	0.284	35%	SL_999133	12941.676	SL_999133	4400.200	34%	SL_999133	0.713	SL_999133	0.535	-25%
SL_999134	0.166	SL_999134	0.224	35%	SL_999134	12015.590	SL_999134	4085.300	34%	SL_999134	0.577	SL_999134	0.433	-25%
SL_999166	0.254	SL_999166	0.343	35%	SL_999166	1290.525	SL_999166	438.800	34%	SL_999166	3.797	SL_999166	2.848	-25%
SL_S1017	0.275	SL_S1017	0.371	35%	SL_S1017	10382.870	SL_S1017	3530.200	34%	SL_S1017	2.439	SL_S1017	1.829	-25%
SL_SC1132	0.309	SL_SC1132	0.417	35%	SL_SC1132	439.230	SL_SC1132	149.300	34%	SL_SC1132	2.38	SL_SC1132	1.785	-25%
SL_SC1144	0.226	SL_SC1144	0.305	35%	SL_SC1144	1058.036	SL_SC1144	359.700	34%	SL_SC1144	2.329	SL_SC1144	1.747	-25%
SL_SC1321	0.288	SL_SC1321	0.389	35%	SL_SC1321	458.251	SL_SC1321	155.800	34%	SL_SC1321	2.477	SL_SC1321	1.858	-25%
SL_SC1609	0.271	SL_SC1609	0.366	35%	SL_SC1609	2036.806	SL_SC1609	692.500	34%	SL_SC1609	2.952	SL_SC1609	2.214	-25%
W_101213	0.211	W_101213	0.285	35%	W_101213	1981.053	W_101213	673.600	34%	W_101213	3.373	W_101213	2.530	-25%
W_101216	0.257	W_101216	0.347	35%	W_101216	863.328	W_101216	293.500	34%	W_101216	1.908	W_101216	1.431	-25%
W_101219	0.184	W_101219	0.248	35%	W_101219	539.522	W_101219	183.400	34%	W_101219	1.261	W_101219	0.946	-25%
W_101396	0.312	W_101396	0.421	35%	W_101396	617.760	W_101396	210.100	34%	W_101396	0.79	W_101396	0.593	-25%
W_101524	0.177	W_101524	0.239	35%	W_101524	6802.714	W_101524	2312.900	34%	W_101524	0.924	W_101524	0.693	-25%
W_101740	0.253	W_101740	0.342	35%	W_101740	5126.576	W_101740	1743.000	34%	W_101740	4.945	W_101740	3.709	-25%
W_101891	0.216	W_101891	0.292	35%	W_101891	5663.671	W_101891	1925.700	34%	W_101891	1.133	W_101891	0.850	-25%
W_101908	0.271	W_101908	0.366	35%	W_101908	1269.815	W_101908	431.700	34%	W_101908	0.553	W_101908	0.415	-25%
W_101910	0.207	W_101910	0.279	34%	W_101910	1264.645	W_101910	430.000	34%	W_101910	0.624	W_101910	0.468	-25%
W_101912	0.266	W_101912	0.359	35%	W_101912	9146.663	W_101912	3109.900	34%	W_101912	4.435	W_101912	3.326	-25%
W_101918	0.203	W_101918	0.274	35%	W_101918	739.239	W_101918	251.300	34%	W_101918	0.844	W_101918	0.633	-25%
W_101924	0.202	W_101924	0.273	35%	W_101924	881.409	W_101924	299.700	34%	W_101924	1.594	W_101924	1.196	-25%
W_101933	0.239	W_101933	0.323	35%	W_101933	6884.017	W_101933	2340.600	34%	W_101933	2.458	W_101933	1.844	-25%
W_101935	0.256	W_101935	0.346	35%	W_101935	3780.040	W_101935	1285.200	34%	W_101935	3.183	W_101935	2.387	-25%
W_101938	0.375	W_101938	0.506	35%	W_101938	7562.452	W_101938	2571.300	34%	W_101938	6.11	W_101938	4.583	-25%
W_101942	0.309	W_101942	0.417	35%	W_101942	2322.619	W_101942	789.700	34%	W_101942	5.632	W_101942	4.224	-25%
W_101945	0.372	W_101945	0.502	35%	W_101945	732.244	W_101945	248.900	34%	W_101945	7.303	W_101945	5.477	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
W_101948	0.278
W_101952	0.235
W_101954	0.164
W_101956	0.152
W_102062	0.201
W_102063	0.366
W_102070	0.345
W_102073	0.234
W_102078	0.343
W_102082	0.344
W_102094	0.348
W_102095	0.358
W_102121	0.364
W_102124	0.314
W_102165	0.400
W_102166	0.307
W_102171	0.395
W_102187	0.351
W_102213	0.343
W_102214	0.152
W_102216	0.268
W_102306	0.318
W_102577	0.316
W_102588	0.150
W_102853	0.346
W_102873	0.372
W_102876	0.338
W_102880	0.284
W_102939	0.358
W_102973	0.353
W_102990.1	0.359
W_102990.2	0.367
W_150090	0.345
W_150130	0.287
W_150150	0.331
W_150177	0.327
W_150202	0.380
W_150234	0.339
W_5745	0.330
W_5803	0.390
W_800194	0.381
W_999000	0.316
W_999002	0.310
W_999005	0.326

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
W_101948	0.375	35%
W_101952	0.317	35%
W_101954	0.221	35%
W_101956	0.205	35%
W_102062	0.271	35%
W_102063	0.494	35%
W_102070	0.466	35%
W_102073	0.316	35%
W_102078	0.463	35%
W_102082	0.464	35%
W_102094	0.470	35%
W_102095	0.483	35%
W_102121	0.491	35%
W_102124	0.424	35%
W_102165	0.540	35%
W_102166	0.414	35%
W_102171	0.533	35%
W_102187	0.474	35%
W_102213	0.463	35%
W_102214	0.205	35%
W_102216	0.362	35%
W_102306	0.429	35%
W_102577	0.427	35%
W_102588	0.203	35%
W_102853	0.467	35%
W_102873	0.502	35%
W_102876	0.456	35%
W_102880	0.383	35%
W_102939	0.483	35%
W_102973	0.477	35%
W_102990.1	0.485	35%
W_102990.2	0.495	35%
W_150090	0.466	35%
W_150130	0.387	35%
W_150150	0.447	35%
W_150177	0.441	35%
W_150202	0.513	35%
W_150234	0.458	35%
W_5745	0.446	35%
W_5803	0.527	35%
W_800194	0.514	35%
W_999000	0.427	35%
W_999002	0.419	35%
W_999005	0.440	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
W_101948	3052.249
W_101952	4651.803
W_101954	897.336
W_101956	444.070
W_102062	798.600
W_102063	5334.793
W_102070	6017.378
W_102073	550.942
W_102078	7457.088
W_102082	2477.112
W_102094	4274.978
W_102095	873.814
W_102121	28662.480
W_102124	1889.882
W_102165	514.879
W_102166	2087.069
W_102171	1653.605
W_102187	9289.170
W_102213	2307.067
W_102214	1066.113
W_102216	810.700
W_102306	3720.703
W_102577	5941.064
W_102588	467.544
W_102853	49969.418
W_102873	704.880
W_102876	1808.611
W_102880	677.160
W_102939	1780.733
W_102973	1208.479
W_102990.1	3713.054
W_102990.2	2167.546
W_150090	10428.264
W_150130	1980.238
W_150150	16657.828
W_150177	1896.602
W_150202	5790.866
W_150234	25509.607
W_5745	21799.166
W_5803	1163.488
W_800194	3069.238
W_999000	924.142
W_999002	872.942
W_999005	500.695

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
W_101948	1037.700	34%
W_101952	1581.600	34%
W_101954	305.100	34%
W_101956	151.000	34%
W_102062	271.500	34%
W_102063	1813.800	34%
W_102070	2045.900	34%
W_102073	187.300	34%
W_102078	2535.400	34%
W_102082	842.200	34%
W_102094	1453.500	34%
W_102095	297.100	34%
W_102121	9745.300	34%
W_102124	642.600	34%
W_102165	175.100	34%
W_102166	709.600	34%
W_102171	562.200	34%
W_102187	3158.300	34%
W_102213	784.400	34%
W_102214	362.500	34%
W_102216	275.600	34%
W_102306	1265.000	34%
W_102577	2020.000	34%
W_102588	159.000	34%
W_102853	16989.600	34%
W_102873	239.700	34%
W_102876	614.900	34%
W_102880	230.200	34%
W_102939	605.400	34%
W_102973	410.900	34%
W_102990.1	1262.500	34%
W_102990.2	737.000	34%
W_150090	3545.600	34%
W_150130	673.300	34%
W_150150	5663.700	34%
W_150177	644.800	34%
W_150202	1968.900	34%
W_150234	8673.300	34%
W_5745	7411.700	34%
W_5803	395.600	34%
W_800194	1043.500	34%
W_999000	314.200	34%
W_999002	296.800	34%
W_999005	170.200	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
W_101948	4.198
W_101952	1.809
W_101954	1.402
W_101956	0.593
W_102062	4.08
W_102063	6.69
W_102070	5.742
W_102073	0.66
W_102078	5.667
W_102082	4.581
W_102094	6.788
W_102095	5.683
W_102121	5.777
W_102124	6.656
W_102165	5.473
W_102166	3.217
W_102171	4.771
W_102187	4.674
W_102213	5.694
W_102214	1.874
W_102216	2.49
W_102306	4.665
W_102577	4.215
W_102588	2.81
W_102853	4.85
W_102873	6.339
W_102876	4.293
W_102880	5.663
W_102939	4.059
W_102973	5.126
W_102990.1	5.49
W_102990.2	4.585
W_150090	6.027
W_150130	5.619
W_150150	4.772
W_150177	7.803
W_150202	5.495
W_150234	6.054
W_5745	6.363
W_5803	8.307
W_800194	5.048
W_999000	2.612
W_999002	6.657
W_999005	6.167

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
W_101948	3.149	-25%
W_101952	1.357	-25%
W_101954	1.052	-25%
W_101956	0.445	-25%
W_102062	3.060	-25%
W_102063	5.018	-25%
W_102070	4.307	-25%
W_102073	0.495	-25%
W_102078	4.250	-25%
W_102082	3.436	-25%
W_102094	5.091	-25%
W_102095	4.262	-25%
W_102121	4.333	-25%
W_102124	4.992	-25%
W_102165	4.105	-25%
W_102166	2.413	-25%
W_102171	3.578	-25%
W_102187	3.506	-25%
W_102213	4.271	-25%
W_102214	1.406	-25%
W_102216	1.868	-25%
W_102306	3.499	-25%
W_102577	3.161	-25%
W_102588	2.108	-25%
W_102853	3.638	-25%
W_102873	4.754	-25%
W_102876	3.220	-25%
W_102880	4.247	-25%
W_102939	3.044	-25%
W_102973	3.845	-25%
W_102990.1	4.118	-25%
W_102990.2	3.439	-25%
W_150090	4.520	-25%
W_150130	4.214	-25%
W_150150	3.579	-25%
W_150177	5.852	-25%
W_150202	4.121	-25%
W_150234	4.541	-25%
W_5745	4.772	-25%
W_5803	6.230	-25%
W_800194	3.786	-25%
W_999000	1.959	-25%
W_999002	4.993	-25%
W_999005	4.625	-25%

Drainage Master Plan - Windermere Study Area

Table 2.2.2

Comparison of Final Calibrated Hydrologic Model Parameters with Initial Calculated Values

Original Manning's N for Pervious Areas

Subcatchment ID	Manning's N for Pervious Portion
W_999010	0.158
W_999012	0.284
W_999013	0.383
W_999014	0.374
W_999015	0.372
W_999017	0.342
W_999019	0.227
W_999022	0.284
W_999025	0.313
W_999028	0.192
W_999029	0.202
W_999142	0.300
W_999146	0.305
W_999153	0.345
W_999157	0.370
W_999158	0.324
W_999163	0.313

Final Calibrated Manning's N for Pervious Areas used in InfoSWMM Model

Subcatchment ID	Calibrated Manning's N for Pervious Portion	Comparison with Original Manning's N for Pervious Portion (%)
W_999010	0.213	35%
W_999012	0.383	35%
W_999013	0.517	35%
W_999014	0.505	35%
W_999015	0.502	35%
W_999017	0.462	35%
W_999019	0.306	35%
W_999022	0.383	35%
W_999025	0.423	35%
W_999028	0.259	35%
W_999029	0.273	35%
W_999142	0.405	35%
W_999146	0.412	35%
W_999153	0.466	35%
W_999157	0.500	35%
W_999158	0.437	35%
W_999163	0.423	35%

Original Subcatchment Width Calculated from Subcatchment Area and Length

Subcatchment ID	Subcatchment Width (ft)
W_999010	438.951
W_999012	11921.936
W_999013	8672.360
W_999014	8129.603
W_999015	2900.660
W_999017	4835.160
W_999019	1998.979
W_999022	31554.428
W_999025	2999.542
W_999028	710.028
W_999029	3204.709
W_999142	371.131
W_999146	4935.784
W_999153	4648.723
W_999157	1454.904
W_999158	4248.407
W_999163	2894.562

Final Calibrated Subcatchment Width used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Width (ft)	Comparison with Original Subcatchment Width (%)
W_999010	149.300	34%
W_999012	4053.400	34%
W_999013	2948.600	34%
W_999014	2764.100	34%
W_999015	986.200	34%
W_999017	1644.000	34%
W_999019	679.700	34%
W_999022	10728.500	34%
W_999025	1019.800	34%
W_999028	241.400	34%
W_999029	1089.600	34%
W_999142	126.200	34%
W_999146	1678.200	34%
W_999153	1580.600	34%
W_999157	494.700	34%
W_999158	1444.500	34%
W_999163	984.200	34%

Original Subcatchment Slope Calculated from Longest Flow Paths and TIN

Subcatchment ID	Subcatchment Slope (%)
W_999010	3.316
W_999012	5.2
W_999013	6.967
W_999014	8.29
W_999015	6.217
W_999017	4.22
W_999019	2.296
W_999022	1.067
W_999025	1.157
W_999028	0.942
W_999029	1.461
W_999142	4.165
W_999146	5.714
W_999153	5.52
W_999157	3.734
W_999158	2.787
W_999163	2.972

Final Calibrated Subcatchment Slope used in InfoSWMM Model

Subcatchment ID	Calibrated Subcatchment Slope (%)	Comparison with Original Subcatchment Slope (%)
W_999010	2.487	-25%
W_999012	3.900	-25%
W_999013	5.225	-25%
W_999014	6.218	-25%
W_999015	4.663	-25%
W_999017	3.165	-25%
W_999019	1.722	-25%
W_999022	0.800	-25%
W_999025	0.868	-25%
W_999028	0.707	-25%
W_999029	1.096	-25%
W_999142	3.124	-25%
W_999146	4.286	-25%
W_999153	4.140	-25%
W_999157	2.801	-25%
W_999158	2.090	-25%
W_999163	2.229	-25%

Rainfall Data - Gage No. EM28443 - Fire Station No. 46 - SW Corner of Scenic Hwy & Walnut Rd.

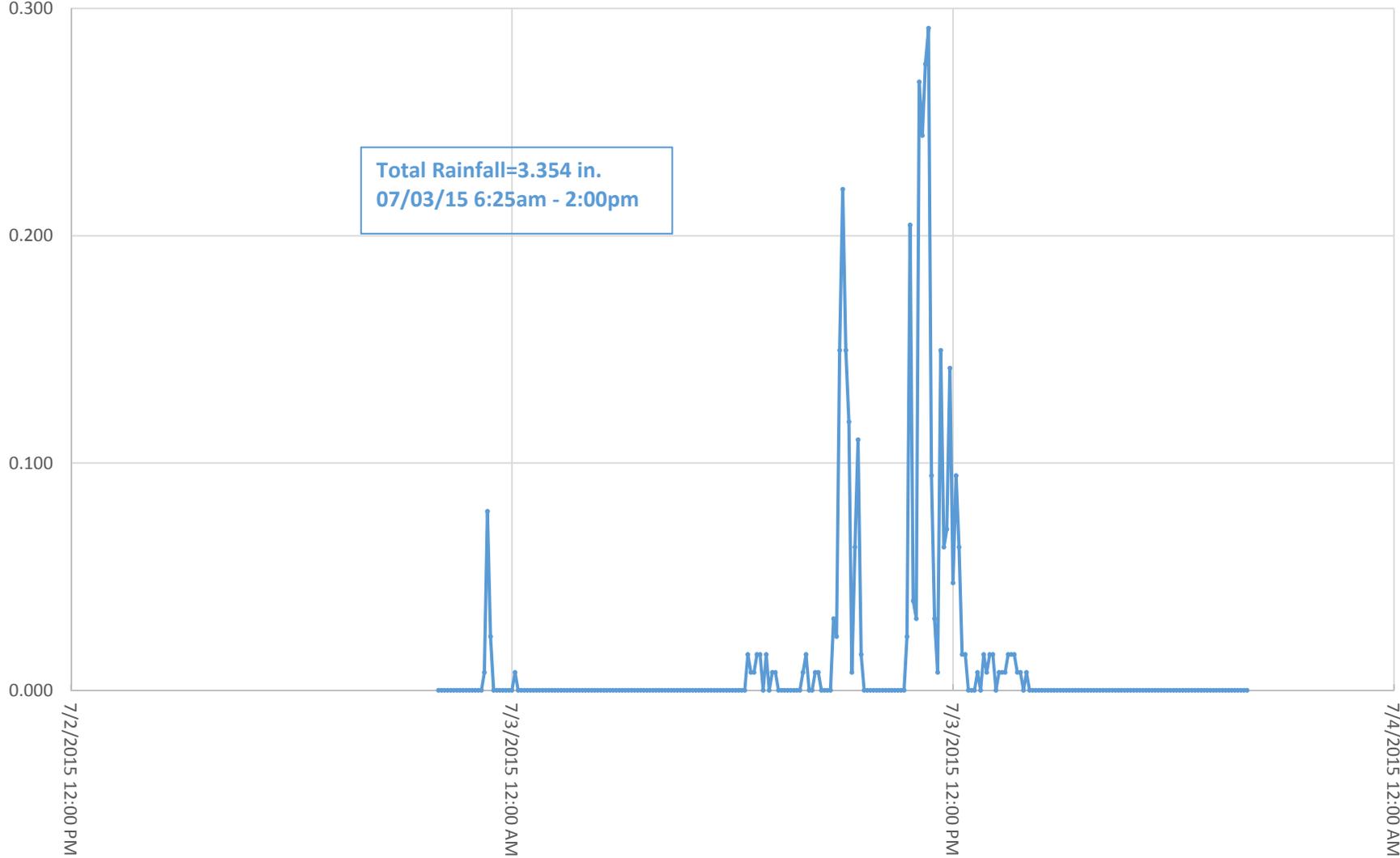


Exhibit 3.1

Crest Stage Gage at James Park (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Desc.</u>
102338	340078.9	789154.4	244.18	BASE_WALL
102339	340079	789154.2	244.52	BOTTOM_TUBE
102340	340079	789153.9	253.41	TOP_TUBE

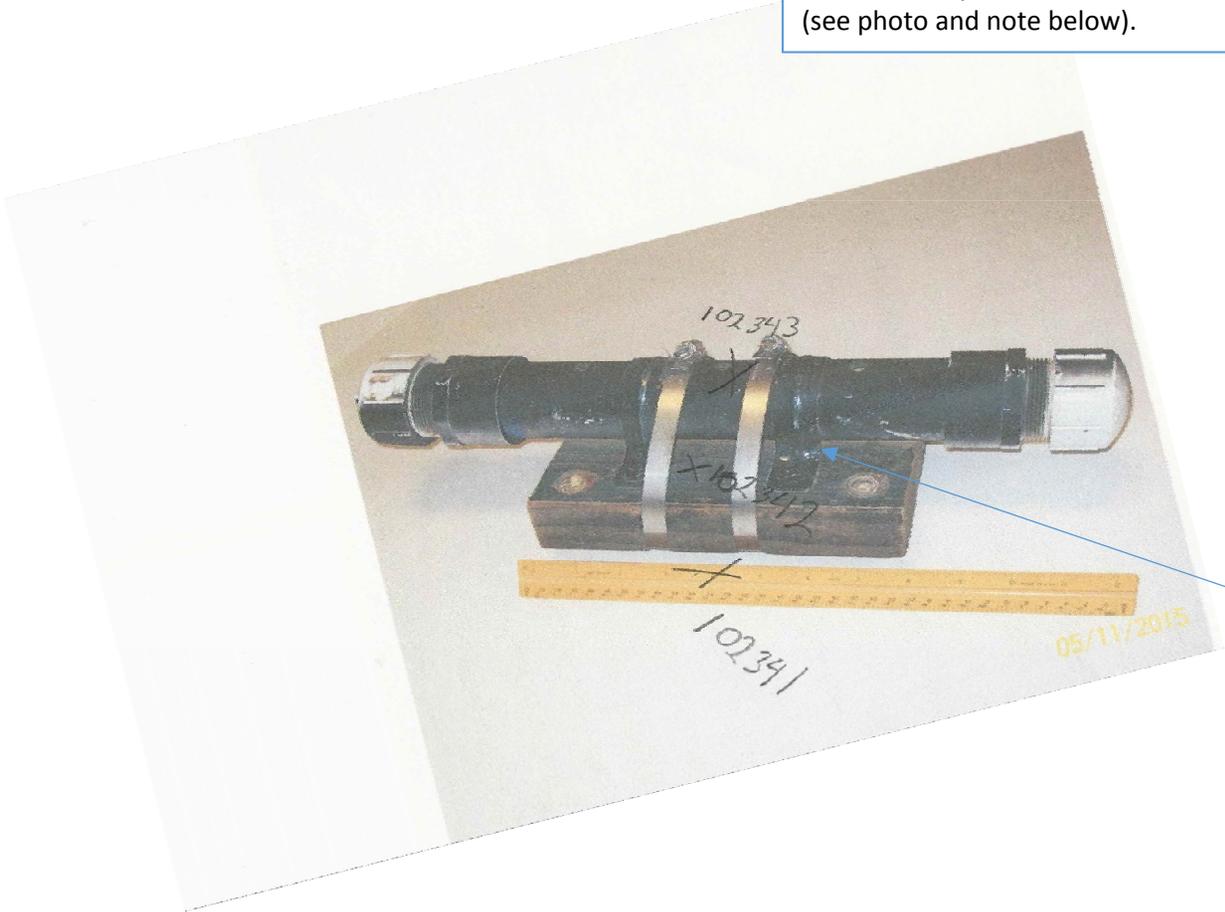


Exhibit 3.1

James Park Pressure Transducer (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Gage Base Elev.</u>	<u>Desc.</u>
102341	340084.8	789161.3	243.89		FL_CHANN
102342	340084.9	789161.1	244.03	244.051	TOP_BLOCK
102343	340084.9	789161.1	244.18		TOP_TUBE

Need to add 0.25 inch (0.021 ft) to this elevation to establish the pressure transducer's "Base" elevation (see photo and note below).



Bottom of inside of tube is considered the "Base" Elev. for the gage data. According to Univ. of Memphis email, the transducer (which is inside of the PVC tube) sits 0.25 inch above the wood block.

Exhibit 3.1

Crest Stage Gage at James Park (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Desc.</u>
102338	340078.939	789154.379	244.18	BASE_WALL
102339	340078.965	789154.181	244.52	BOTTOM_TUBE
102340	340079.029	789153.878	253.41	TOP_TUBE

Note: Measurements at Crest Stage Gage were taken every 2 weeks, but actual date of the peak stage is not known. Refer to Pressure Transducer Data for actual date/time of peak occurrence.

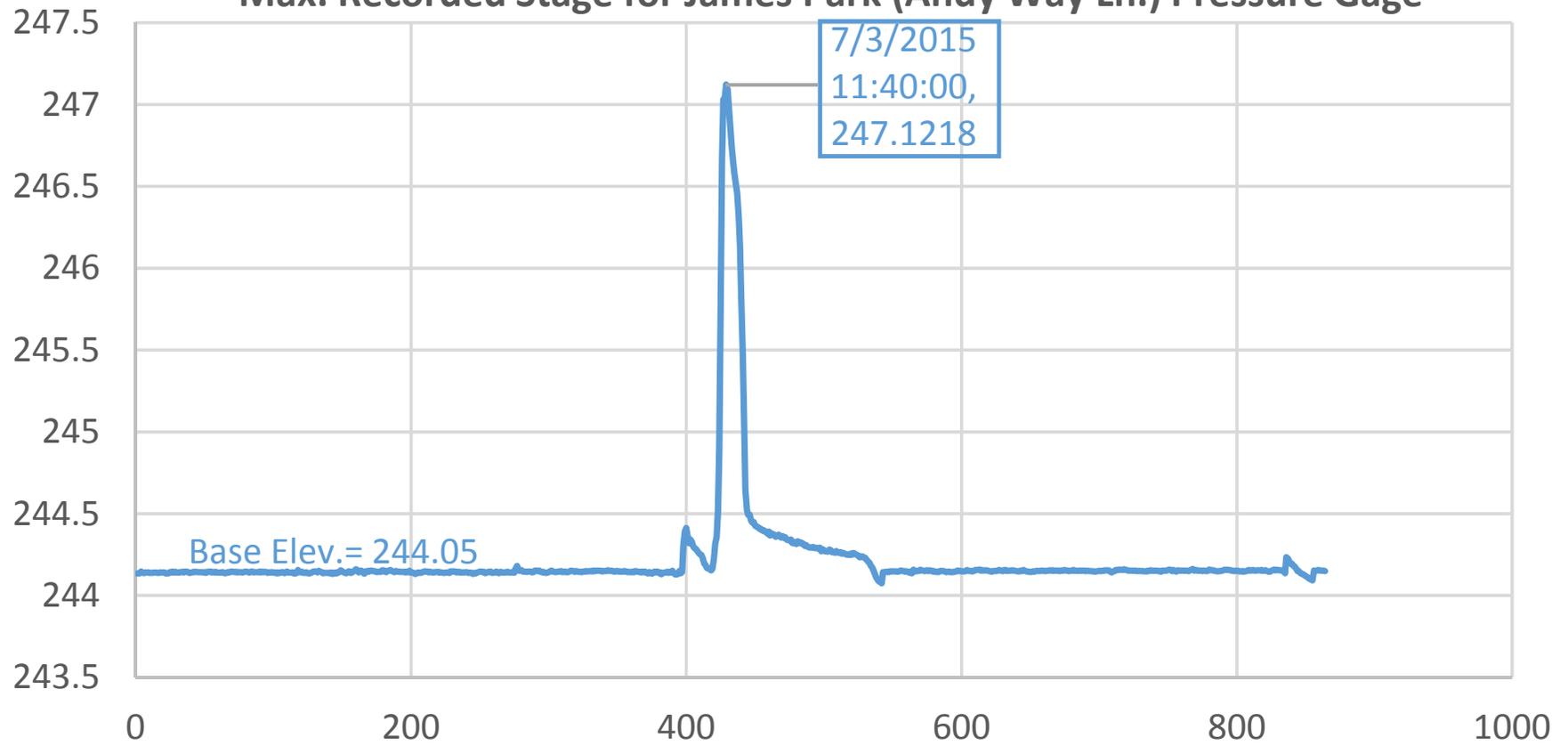
Basin	Location	Calculated "Base Elev." (See previous Tab)	Max. Recorded Measurement (ft.)	Max. Stage Within 2-Week Period (ft.)
Windermere	James Park	244.52	2.41	246.93

2-Week Period Measurement Date	Crest Stage Gage Measurement (ft.)
6/3/2015	0
6/16/2015	0
6/29/2015	0
7/13/2015	2.41
7/29/2015	2.38
8/12/2015	N/A-vandalism
8/28/2015	0.3
9/11/2015	0
9/24/2015	0
10/8/2015	0
10/23/2015	0
11/6/2015	0.8
11/19/2015	0

Pressure Transducer data does not show an event to match this peak within this 2-week period.

Use this data to calibrate model		
Max. Elev. (from Pressure Transducer Data)	Date of Max. Elev. Recorded by Pressure Transducer	
247.12	7/3/2015	11:40 AM

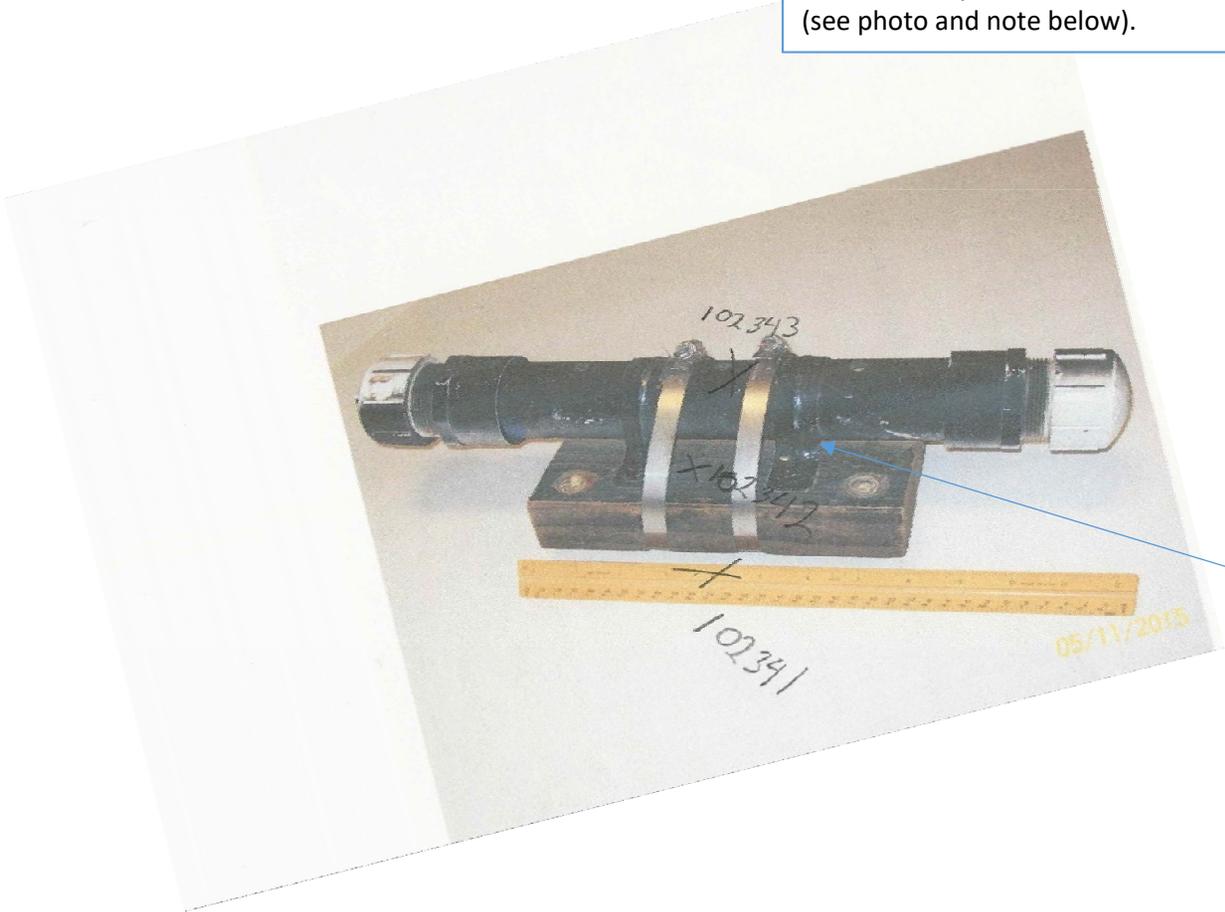
July 3, 2015 Event
Max. Recorded Stage for James Park (Andy Way Ln.) Pressure Gage



James Park Pressure Transducer (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Gage Base Elev.</u>	<u>Desc.</u>
102341	340084.8	789161.3	243.89		FL_CHANN
102342	340084.9	789161.1	244.03	244.051	TOP_BLOCK
102343	340084.9	789161.1	244.18		TOP_TUBE

Need to add 0.25 inch (0.021 ft) to this elevation to establish the pressure transducer's "Base" elevation (see photo and note below).



Bottom of inside of tube is considered the "Base" Elev. for the gage data. According to Univ. of Memphis, the transducer (which is inside of the PVC tube) sits 0.25 inch

Exhibit 3.2

Crest Stage Gage at James Park (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Desc.</u>
102338	340078.9	789154.4	244.18	BASE_WALL
102339	340079	789154.2	244.52	BOTTOM_TUBE ("Base" Elevation)
102340	340079	789153.9	253.41	TOP_TUBE

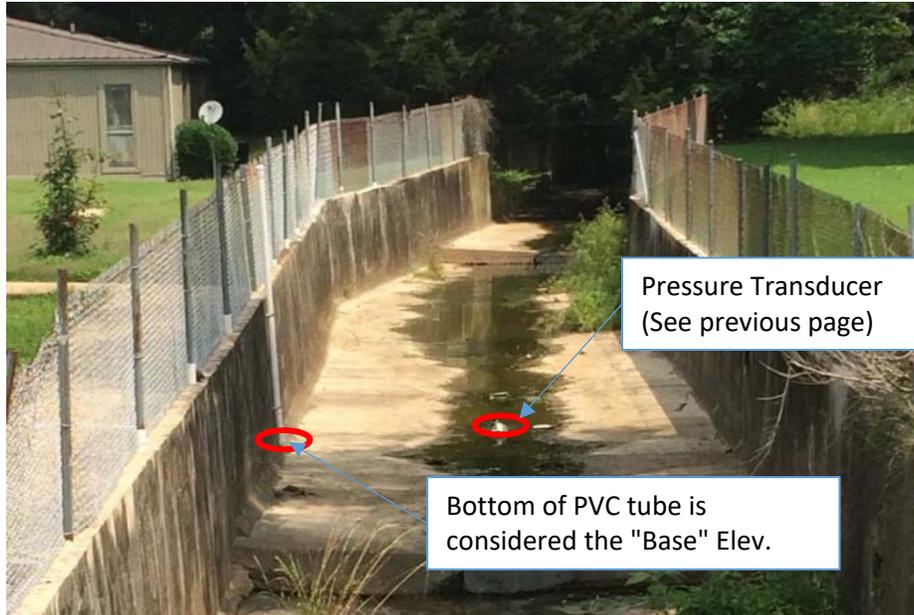


Exhibit 3.2

Crest Stage Gage at James Park (just north of Andy Way Lane) - Survey Data from THY, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Desc.</u>
102338	340078.939	789154.379	244.18	BASE_WALL
102339	340078.965	789154.181	244.52	BOTTOM_TUBE
102340	340079.029	789153.878	253.41	TOP_TUBE

Note: Measurements at Crest Stage Gage were taken every 2 weeks, but actual date of the peak stage is not known. Refer to Pressure Transducer Data for actual date/time of peak occurrence.

Basin	Location	Calculated "Base Elev." (See previous Tab)	Max. Recorded Measurement (ft.)	Max. Stage Within 2-Week Period (ft.)
Windermere	James Park	244.52	2.41	246.93

2-Week Period Measurement Date	Crest Stage Gage Measurement (ft.)
6/3/2015	0
6/16/2015	0
6/29/2015	0
7/13/2015	2.41
7/29/2015	2.38
8/12/2015	N/A-vandalism
8/28/2015	0.3
9/11/2015	0
9/24/2015	0
10/8/2015	0
10/23/2015	0
11/6/2015	0.8
11/19/2015	0

Rain gage shows an event to match this peak within this 2-week period. Pressure Transducer data shows a decent reading on

Neither rain gage nor pressure transducer data show an event to match this peak within this 2-week period. Assume bogus

Rain gage shows an event in this period. Pressure Transducer data shows a small reading on 11-17-15 at 11:55 PM.

Use this data to calibrate model		
Max. Elev. (from Pressure Transducer Data)	Date of Max. Elev. Recorded by Pressure Transducer	
247.12	7/3/2015	11:40 AM

Use this data to verify model		
Max. Elev. (from Pressure Transducer Data)	Date of Max. Elev. Recorded by Pressure Transducer	
244.55	11/17/2015	11:55 PM

Sky Lake Pressure Transducer (south/downstream face of James Road box culvert) - Survey Data from Neel-Schaffer, Inc.

<u>Pt.</u>	<u>Y</u>	<u>X</u>	<u>Elev.</u>	<u>Gage Base Elev.</u>	<u>Desc.</u>
301	339423.3	783351.5	225.66	225.681	

NOTE:
One survey point. Pt. No. 301,, Elev. 225.66, "CUL(20'X7)"

Need to add 0.25 inch (0.021 ft) to this elevation to establish the pressure transducer's "Base" elevation (see photo and note below).



CUL(20'X7)'

Bottom of inside of tube is considered the "Base" Elev. for the gage data. According to Univ. of Memphis, the transducer (which is inside of the PVC tube) sits 0.25 inch

Crest Stage Gage at Sky Lake (downstream side of James Road box culvert) - Survey Data from Neel-Schaffer, Inc

Pt. Y X Elev. Desc.

301 339423.3 783351.5 225.681 ("Base" Elevation)



NOTE:
One survey point. Pt. No. 301,, Elev. 225.66, "CUL(20'X7)""
Added 0.25 inch (0.021 ft.) to Pt. No. 301 to obtain base elev.

Drainage Master Plan - Windermere Study Area
Table 3.4
InfoSWMM Model Calibration and Verification Summary

CALIBRATION MODEL RUN - JULY 3, 2015 STORM EVENT

Location Description	Measured Stage (Ft. NAVD88)	Type	Adjacent Model Node ID	Maximum HGL (Ft. NAVD88)	Difference (Maximum HGL - Measured Stage) (Ft.)
James Park Watershed - Just North of Andy Way Lane	247.12	Gage Reading	102	246.13	-0.99
Sky Lake Watershed - downstream side of James Road box culvert	229.05	Gage Reading	301	230.07	1.02¹

Notes:

1. *Adjusting runoff and/or hydraulic parameters and coefficients, either watershed-wide or local to the James Road gage location did not improve results in either the calibration or the verification run. Therefore, it is believed that either the gage readings may be unreliable for the July event at the James Road gage, or the watershed experienced an unequal distribution of rainfall during the event. The model is considered to be "calibrated" and acceptable for frequency storm*

RUNOFF QUANTITIY REPORT - JULY 3, 2015 EVENT		
Item	Volume (acre-ft)	Depth (in)
Total Precipitation	925.063	3.359
Evaporation Loss	0	0
Infiltration Loss	516.25	1.875
Surface Runoff	406.423	1.476
Final Surface Storage	2.401	0.009
Continuity Error (%)	-0.001	-0.001

FLOW ROUTING CONTINUITY REPORT - JULY 3, 2015 EVENT		
Item	Mass Volume (acre-ft)	Storage Volume (MG)
Dry Weather Inflow	0	0
Wet Weather Inflow	406.33	132.399
Groundwater Inflow	0	0
RDII Inflow	0	0
External Inflow	0	0
External Outflow	360.531	117.476
Internal Outflow	0	0
Evaporation Loss	0	0
Exfiltration Loss	0	0
Initial Stored Volume	0	0
Final Stored Volume	46.256	15.072
Continuity Error (%)	-0.112	-0.112

NOTE: Red text is not to be corrected

Drainage Master Plan - Windermere Study Area
Table 3.4
InfoSWMM Model Calibration and Verification Summary

VERIFICATION MODEL RUN - NOVEMBER 16-18, 2015 STORM EVENT

Location Description	Measured Stage (Ft. NAVD88)	Type	Adjacent Model Node ID	Maximum HGL (Ft. NAVD88)	Difference (Maximum HGL - Measured Stage) (Ft.)
James Park Watershed - Just North of Andy Way Lane	244.55	Gage Reading	102	245.48	0.93
Sky Lake Watershed - downstream side of James Road box culvert	228.02	Gage Reading	301	229.59	1.57¹

Notes:

1. Adjusting runoff and/or hydraulic parameters and coefficients, either watershed-wide or local to the James Road gage location did not improve results in either the calibration or the verification run. Therefore, it is believed that either the gage readings may be unreliable for the November event at the James Road gage, or the watershed experienced an unequal distribution of rainfall during the event. The model is considered to be "calibrated" and acceptable for frequency storm analysis.

RUNOFF QUNATITIY REPORT - NOVEMBER 16-18, 2015 EVENT

Item	Volume (acre-ft)	Depth (in)
Total Precipitation	991.985	3.602
Evaporation Loss	0	0
Infiltration Loss	584.109	2.121
Surface Runoff	405.477	1.472
Final Surface Storage	2.401	0.009
Continuity Error (%)	0	0

FLOW ROUTING CONTINUITY REPORT - NOVEMBER 16-18, 2015 EVENT

Item	Mass Volume (acre-ft)	Storage Volume (MG)
Dry Weather Inflow	0	0
Wet Weather Inflow	405.457	132.114
Groundwater Inflow	0	0
RDII Inflow	0	0
External Inflow	0	0
External Outflow	359.116	117.015
Internal Outflow	0	0
Evaporation Loss	0	0
Exfiltration Loss	0	0
Initial Stored Volume	0	0
Final Stored Volume	46.732	15.227
Continuity Error (%)	-0.096	-0.096

NOTE: Red text is not to be corrected

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.1
 InfoSWMM Model Frequency Flood Results Table
 (Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)													
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED
5033	FFE 1	2926 Invergarry Road	245.60	241.17	100	245.63	245.60	245.06	245.05	245.62	245.65	245.46	245.63	245.63	245.51	245.63	245.33	245.63	244.95
					50	245.26	245.24	243.14	243.10	245.25	245.28	245.11	245.27	245.26	245.16	245.26	245.11	245.26	242.98
					25	244.74	243.28	242.49	242.47	244.69	244.76	243.12	244.75	244.73	243.19	244.73	244.74	244.73	242.45
					10	242.50	242.46	241.77	241.76	242.48	242.50	242.44	242.52	242.50	242.43	242.50	242.50	242.50	241.62
					5	242.08	242.05	240.87	240.87	242.07	242.08	241.98	242.09	242.08	242.05	242.08	242.08	242.08	240.76
					2	241.09	241.05	239.82	239.81	241.08	241.08	241.00	241.09	241.09	241.06	241.09	241.09	241.09	239.77
5033	FFE 2	2934 Invergarry Road	245.10	241.17	100	245.63	245.60	245.06	245.05	245.62	245.65	245.46	245.63	245.63	245.51	245.63	245.33	245.63	244.95
					50	245.26	245.24	243.14	243.10	245.25	245.28	245.11	245.27	245.26	245.16	245.26	245.11	245.26	242.98
					25	244.74	243.28	242.49	242.47	244.69	244.76	243.12	244.75	244.73	243.19	244.73	244.74	244.73	242.45
					10	242.50	242.46	241.77	241.76	242.48	242.50	242.44	242.52	242.50	242.43	242.50	242.50	242.50	241.62
					5	242.08	242.05	240.87	240.87	242.07	242.08	241.98	242.09	242.08	242.05	242.08	242.08	242.08	240.76
					2	241.09	241.05	239.82	239.81	241.08	241.08	241.00	241.09	241.09	241.06	241.09	241.09	241.09	239.77
6034	FFE 3	2927 Invergarry Road	244.10	240.15	100	244.31	244.28	243.81	243.81	244.30	244.33	244.11	244.31	244.31	244.18	244.31	244.01	244.31	243.79
					50	243.91	243.89	241.34	241.34	243.90	243.92	243.83	243.91	243.91	243.84	243.91	243.82	243.91	241.24
					25	243.75	241.31	241.28	241.28	243.74	243.75	241.49	243.75	243.75	241.41	243.75	243.75	243.75	241.27
					10	241.26	241.24	240.75	240.74	241.25	241.26	241.24	241.26	241.26	241.21	241.26	241.25	241.25	240.61
					5	240.99	240.98	239.91	239.91	240.99	240.99	240.92	240.99	240.99	240.98	240.99	240.99	240.99	239.81
					2	240.11	240.07	238.92	238.91	240.10	240.10	240.02	240.11	240.11	240.08	240.11	240.11	240.11	238.86
1021	FFE 4	3152 Whitney Road	268.60	268.30	100	268.82	268.82	268.76	268.76	268.82	268.79	268.82	268.82	268.82	268.82	268.82	268.82	268.82	268.79
					50	268.76	268.76	268.72	268.72	268.76	268.66	268.76	268.76	268.76	268.76	268.76	268.76	268.76	268.71
					25	268.65	268.64	268.63	268.63	268.65	268.55	268.64	268.64	268.65	268.64	268.65	268.65	268.65	268.60
					10	268.57	268.57	268.57	268.57	268.57	268.46	268.57	268.57	268.57	268.57	268.57	268.57	268.57	268.48
					5	268.52	268.52	268.52	268.52	268.52	268.40	268.52	268.52	268.52	268.52	268.52	268.52	268.52	268.40
					2	268.41	268.41	268.41	268.41	268.41	268.29	268.41	268.41	268.41	268.41	268.41	268.41	268.41	268.29
999251	FFE 5	2772 William Tell Cove	278.88	278.00	100	278.96	278.96	278.96	278.96	278.96	278.96	278.96	278.96	278.84	278.78	278.96	278.96	278.96	278.78
					50	278.85	278.85	278.85	278.85	278.85	278.85	278.85	278.85	278.85	278.76	278.70	278.85	278.85	278.70
					25	278.76	278.76	278.76	278.76	278.76	278.76	278.76	278.76	278.76	278.68	278.58	278.76	278.76	278.58
					10	278.65	278.65	278.65	278.65	278.65	278.65	278.65	278.65	278.65	278.53	278.37	278.65	278.65	278.37
					5	278.53	278.53	278.53	278.53	278.53	278.53	278.53	278.53	278.53	278.35	278.00	278.53	278.53	278.00
					2	278.01	278.01	278.01	278.01	278.01	278.01	278.01	278.01	278.01	278.00	278.00	278.01	278.01	278.01
S1022	FFE 6	2552 Monette Ave.	288.29	280.89	100	288.61	288.61	290.90	289.29	288.61	290.90	288.61	288.61	290.24	288.60	286.35	286.76	288.61	286.36
					50	289.28	289.66	289.58	289.55	289.44	289.09	289.50	289.57	289.34	289.69	288.19	286.89	289.80	287.86
					25	290.24	288.73	289.81	288.73	290.73	288.73	290.90	288.73	290.90	290.90	286.26	287.24	290.90	285.83
					10	288.36	288.44	290.35	288.39	288.36	290.36	288.37	288.36	288.77	290.19	281.36	289.90	288.36	281.36
					5	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	280.92	285.24	290.90	280.90
					2	284.56	285.49	286.72	284.61	285.40	285.62	284.58	284.60	286.70	284.66	280.69	281.37	284.69	280.67
S1022	FFE 7	2562 Monette Ave.	284.60	280.89	100	288.61	288.61	290.90	289.29	288.61	290.90	288.61	288.61	290.24	288.60	286.35	286.76	288.61	286.36
					50	289.28	289.66	289.58	289.55	289.44	289.09	289.50	289.57	289.34	289.69	288.19	286.89	289.80	287.86
					25	290.24	288.73	289.81	288.73	290.73	288.73	290.90	288.73	290.90	290.90	286.26	287.24	290.90	285.83
					10	288.36	288.44	290.35	288.39	288.36	290.36	288.37	288.36	288.77	290.19	281.36	289.90	288.36	281.36
					5	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	280.92	285.24	290.90	280.90
					2	284.56	285.49	286.72	284.61	285.40	285.62	284.58	284.60	286.70	284.66	280.69	281.37	284.69	280.67

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.1

InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)														
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED	
S1022	FFE 8	2559 Monette Cove	286.50	280.89	100	288.61	288.61	290.90	289.29	288.61	290.90	288.61	288.61	290.24	288.60	286.35	286.76	288.61	286.36	
					50	289.28	289.66	289.58	289.55	289.44	289.09	289.50	289.57	289.34	289.69	288.19	286.89	289.80	287.86	
					25	290.24	288.73	289.81	288.73	290.73	288.73	290.90	288.73	290.90	290.90	286.26	287.24	290.90	285.83	
					10	288.36	288.44	290.35	288.39	288.36	290.36	288.37	288.36	288.77	290.19	281.36	289.90	288.36	281.36	
					5	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	290.90	280.92	285.24	290.90	280.90	
					2	284.56	285.49	286.72	284.61	285.40	285.62	284.58	284.60	286.70	284.66	280.69	281.37	284.69	280.67	
1586	FFE 9	2511 Clearpark Drive	275.50	273.78	100	275.90	275.90	275.90	275.90	275.90	275.90	275.90	275.90	275.90	275.90	275.90	274.74	275.90	275.30	
					50	275.44	275.44	275.44	275.44	275.44	275.44	275.44	275.44	275.44	275.44	274.37	275.44	274.85		
					25	275.01	275.01	275.01	275.01	275.01	275.01	275.01	275.01	275.01	275.01	274.15	275.01	274.41		
					10	274.45	274.45	274.45	274.45	274.45	274.45	274.45	274.45	274.45	274.45	273.78	274.45	274.15		
					5	274.20	274.20	274.20	274.20	274.20	274.20	274.20	274.20	274.20	274.20	272.66	274.20	273.75		
					2	273.94	273.94	273.94	273.94	273.94	273.94	273.94	273.94	273.94	273.94	271.57	273.94	271.20		
999166	Road Section 1 (road overtopping elevation at Loch Nevin Park)	Laurencekirk Rd.@ Lochnevin Park	246.66	247.03	100	247.57	247.57	247.34	246.92	247.57	247.58	247.53	247.57	247.57	247.54	247.57	247.57	247.57	246.90	
					50	247.49	247.49	247.25	246.83	247.49	247.50	247.46	247.49	247.49	247.47	247.49	247.49	247.49	246.74	
					25	247.40	247.39	247.13	246.64	247.39	247.40	247.37	247.40	247.40	247.38	247.40	247.40	247.40	246.61	
					10	247.27	247.26	246.94	246.44	247.26	247.27	247.25	247.27	247.27	247.26	247.27	247.27	247.27	246.40	
					5	247.16	247.16	246.75	246.01	247.16	247.16	247.14	247.16	247.16	247.15	247.16	247.16	247.16	245.92	
					2	247.01	247.01	246.06	245.43	247.01	247.01	247.00	247.01	247.01	247.01	247.01	247.01	247.01	245.40	
5033	Road Section 2 (road overtopping elevation at Invergarry Rd)	2934 Invergarry Road	245.09	241.17	100	245.63	245.60	245.06	245.05	245.62	245.65	245.46	245.63	245.51	245.63	245.33	245.63	244.95		
					50	245.26	245.24	243.14	243.10	245.25	245.28	245.11	245.27	245.26	245.16	245.26	245.11	245.26	242.98	
					25	244.74	243.28	242.49	242.47	244.69	244.76	243.12	244.75	244.73	243.19	244.73	244.74	244.73	242.45	
					10	242.50	242.46	241.77	241.76	242.48	242.50	242.44	242.52	242.50	242.43	242.50	242.50	242.50	241.62	
					5	242.08	242.05	240.87	240.87	242.07	242.08	241.98	242.09	242.08	242.05	242.08	242.08	242.08	240.76	
					2	241.09	241.05	239.82	239.81	241.08	241.08	241.00	241.09	241.09	241.06	241.09	241.09	241.09	239.77	
5250	Road Section 3 (road overtopping elevation at Scotland Rd)	3002 Scotland Road	261.77	262.58	100	263.00	263.00	262.99	262.99	262.99	263.00	263.00	263.00	263.00	263.00	263.00	263.00	263.00	262.99	
					50	262.99	262.99	262.98	262.98	262.96	262.99	262.99	262.99	262.99	262.99	262.99	262.99	262.99	262.96	
					25	262.99	262.98	262.98	262.98	262.53	262.99	262.99	262.99	262.99	262.99	262.99	262.99	262.99	262.53	
					10	262.94	262.94	262.98	262.98	261.23	262.94	262.94	262.94	262.94	262.94	262.94	262.94	262.94	261.23	
					5	262.73	262.73	262.77	262.77	259.55	262.73	262.73	262.73	262.73	262.73	262.73	262.73	262.73	259.55	
					2	262.63	262.63	262.70	262.70	258.93	262.63	262.63	262.63	262.63	262.63	262.63	262.63	262.63	258.93	
5261	Road Section 4 (road overtopping elevation at Dumbarton Rd)	2998 Dumbarton Road	260.02	261.59	100	262.06	262.06	263.03	263.03	262.01	262.06	262.06	262.06	262.06	262.05	262.06	262.06	262.28	261.97	
					50	262.04	262.04	262.77	262.77	261.48	262.05	262.04	262.04	262.04	262.04	262.04	262.04	262.04	262.04	261.48
					25	262.04	262.04	262.54	262.54	260.52	262.04	262.03	262.04	262.03	262.03	262.03	262.03	262.03	262.03	260.53
					10	261.77	261.77	262.33	262.33	259.29	261.77	261.77	261.77	261.77	261.77	261.77	261.77	261.77	259.30	
					5	261.68	261.68	262.13	262.13	258.21	261.68	261.68	261.68	261.68	261.68	261.68	261.68	261.68	258.21	
					2	261.60	261.60	261.95	261.95	257.53	261.60	261.60	261.60	261.60	261.60	261.60	261.60	261.60	257.53	
999181	Road Section 5 (street elevation at Whitney Road)+	Whitney Rd & Dumbarton	263.70	264.01	100	264.92	264.88	264.90	264.89	264.93	264.65	264.81	264.81	264.92	264.82	264.92	264.93	264.92	264.60	
					50	264.80	264.78	264.83	264.78	264.80	264.43	264.75	264.70	264.80	264.76	264.80	264.80	264.80	264.80	264.48
					25	264.68	264.67	264.68	264.68	264.68	264.18	264.63	264.61	264.68	264.65	264.68	264.68	264.68	264.68	264.28
					10	264.57	264.56	264.56	264.55	264.57	263.88	264.50	264.54	264.57	264.53	264.57	264.57	264.57	263.82	
					5	264.44	264.44	264.44	264.44	264.44	263.70	264.42	264.46	264.44	264.44	264.44	264.44	264.44	263.70	
					2	264.27	264.27	264.27	264.27	264.27	263.70	264.20	264.28	264.27	264.24	264.27	264.27	264.27	263.70	

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.1

InfoSWMM Model Frequency Flood Results Table

(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)																	
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED				
1041	Road Section 6 (road overtopping elevation at Whitney Road)	3090 Whitney Road	261.49	260.88	100	263.99	263.93	264.94	264.90	263.99	263.05	263.82	263.96	263.99	263.84	263.99	263.99	263.99	263.99	263.74			
					50	263.82	263.78	264.73	264.45	263.82	262.31	263.73	263.78	263.82	263.75	263.82	263.82	263.82	263.82	263.82	263.60		
					25	263.64	263.63	264.02	264.00	263.64	261.55	263.57	263.65	263.64	263.59	263.64	263.64	263.64	263.64	263.64	263.64	263.35	
					10	263.45	263.44	263.54	263.51	263.45	261.13	263.20	263.51	263.45	263.37	263.45	263.45	263.45	263.45	263.45	263.45	262.57	
					5	262.88	262.86	262.87	262.85	262.88	260.89	262.45	263.18	262.88	262.78	262.88	262.89	262.88	262.89	262.88	262.88	261.89	
					2	261.79	261.80	261.80	261.79	261.80	260.39	260.96	261.89	261.80	261.51	261.80	261.81	261.80	261.80	261.80	261.80	260.83	
DUMBARTON1	Road Section 7 (street elevation at Dumbarton Rd)+	3096 Castlebay Road	272.10	272.10	100	273.57	273.51	273.58	273.52	273.57	273.57	272.10	273.55	273.57	273.08	273.57	273.57	273.57	273.57	272.10			
					50	273.42	273.35	273.43	273.36	273.42	273.41	272.10	273.38	273.42	272.57	273.42	273.42	273.42	273.42	273.42	273.42	272.10	
					25	273.19	273.10	273.21	273.11	273.19	273.18	272.10	273.11	273.19	272.10	273.19	273.20	273.19	273.19	273.19	273.19	272.10	
					10	272.44	272.21	272.47	272.24	272.44	272.30	272.10	272.10	272.10	272.44	272.10	272.44	272.44	272.44	272.44	272.44	272.10	
					5	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10
					2	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10	272.10
1304	Road Section 8 (road overtopping elevation at Seaforth Dr)	Seaforth Drive	284.59	277.38	100	285.23	285.23	285.23	285.23	285.23	285.23	285.23	285.23	285.23	284.56	284.40	285.23	285.23	285.23	285.23	284.40		
					50	284.89	284.89	284.89	284.89	284.89	284.89	284.89	284.89	284.89	283.06	282.91	284.89	284.89	284.89	284.89	284.89	282.91	
					25	283.76	283.76	283.76	283.76	283.76	283.76	283.76	283.76	283.76	282.33	282.15	283.76	283.76	283.76	283.76	283.76	282.15	
					10	282.58	282.58	282.58	282.58	282.58	282.58	282.58	282.58	282.58	281.34	281.07	282.58	282.58	282.58	282.58	282.58	281.07	
					5	281.77	281.77	281.77	281.77	281.77	281.77	281.77	281.77	281.77	280.52	280.00	281.77	281.77	281.77	281.77	281.77	281.77	279.99
					2	280.21	280.21	280.21	280.21	280.21	280.21	280.21	280.21	280.21	279.13	277.45	280.21	280.21	280.21	280.21	280.21	280.21	277.45
SC1342	Road Section 9 (road overtopping elevation at William Tell CV)	2772 William Tell Cove	277.00	276.15	100	277.46	277.46	277.46	277.46	277.46	277.46	277.46	277.46	277.33	277.32	277.46	277.46	277.46	277.46	277.32			
					50	277.35	277.35	277.35	277.35	277.35	277.35	277.35	277.35	277.27	277.25	277.35	277.35	277.35	277.35	277.35	277.35	277.25	
					25	277.27	277.27	277.27	277.27	277.27	277.27	277.27	277.27	277.27	277.19	277.21	277.27	277.27	277.27	277.27	277.27	277.27	277.21
					10	277.18	277.18	277.18	277.18	277.18	277.18	277.18	277.18	277.18	277.13	276.96	277.18	277.18	277.18	277.18	277.18	277.18	276.95
					5	277.16	277.16	277.16	277.16	277.16	277.16	277.16	277.16	277.16	276.92	276.15	277.16	277.16	277.16	277.16	277.16	277.16	276.15
					2	276.16	276.16	276.16	276.16	276.16	276.16	276.16	276.16	276.16	276.15	276.15	276.16	276.16	276.16	276.16	276.16	276.16	276.15
5127	Road Section 10 (road overtopping elevation at William Tell Dr)	William Tell Dr & Cove	276.80	273.31	100	277.90	277.90	277.90	277.90	277.90	277.90	277.90	277.90	277.87	277.09	277.90	277.90	277.90	277.90	277.09			
					50	277.75	277.75	277.75	277.75	277.75	277.75	277.75	277.75	277.72	276.85	277.75	277.75	277.75	277.75	277.75	277.75	276.85	
					25	277.59	277.59	277.59	277.59	277.59	277.59	277.59	277.59	277.56	276.45	277.59	277.59	277.59	277.59	277.59	277.59	276.45	
					10	277.34	277.34	277.34	277.34	277.34	277.34	277.34	277.34	277.26	275.76	277.34	277.34	277.34	277.34	277.34	277.34	275.76	
					5	277.01	277.01	277.01	277.01	277.01	277.01	277.01	277.01	276.81	274.77	277.01	277.01	277.01	277.01	277.01	277.01	274.77	
					2	275.66	275.66	275.66	275.66	275.66	275.66	275.66	275.66	275.66	275.00	271.78	275.66	275.66	275.66	275.66	275.66	271.78	
999173	Road Section 11 (road overtopping elevation at William Tell Dr)	2755 William Tell Drive	276.50	275.36	100	276.61	276.61	276.61	276.61	276.61	276.61	276.61	276.61	276.52	276.34	276.61	276.61	276.61	276.61	276.34			
					50	276.51	276.51	276.51	276.51	276.51	276.51	276.51	276.51	276.43	276.25	276.51	276.51	276.51	276.51	276.51	276.25		
					25	276.41	276.41	276.41	276.41	276.41	276.41	276.41	276.41	276.33	276.09	276.41	276.41	276.41	276.41	276.41	276.09		
					10	276.27	276.27	276.27	276.27	276.27	276.27	276.27	276.27	276.09	275.77	276.27	276.27	276.27	276.27	276.27	276.27	275.77	
					5	275.88	275.88	275.88	275.88	275.88	275.88	275.88	275.88	275.74	275.36	275.88	275.88	275.88	275.88	275.88	275.88	275.36	
					2	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	275.36	
1317	Road Section 12 (road overtopping elevation at William Tell Dr)	William Tell Drive & Dalewood	273.43	268.30	100	274.25	274.25	274.25	274.25	274.25	274.25	274.25	274.25	274.15	273.91	274.25	274.25	274.25	274.25	273.91			
					50	274.11	274.11	274.11	274.11	274.11	274.11	274.11	274.11	274.01	273.61	274.11	274.11	274.11	274.11	274.11	273.58		
					25	273.95	273.95	273.95	273.95	273.95	273.95	273.95	273.95	273.80	273.54	273.95	273.95	273.95	273.95	273.95	273.62		
					10	273.18	273.43	273.18	273.18	273.18	273.18	273.18	273.43	273.18	273.43	273.18	273.18	273.18	273.18	273.18	273.43	271.71	
					5	272.95	272.51	272.52	272.51	272.51	273.34	273.30	272.50	270.44	270.66	273.13	272.76	272.51	272.51	272.51	270.66		
					2	269.44	269.44	269.44	269.44	269.44	269.44	269.44	269.44	269.44	269.24	269.33	269.44	269.44	269.44	269.44	269.44	269.33	

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

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InfoSWMM Model Frequency Flood Results Table

(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)															
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED		
9991017	Road Section 13 (road overtopping elevation at Monette Ave)	Monette Ave. & Trezevant	289.43	285.08	100	290.41	290.41	290.41	290.41	290.41	290.41	290.41	290.41	290.41	290.41	289.92	290.41	290.41	289.92		
					50	290.36	290.36	290.36	290.36	290.36	290.36	290.36	290.36	290.36	290.36	290.36	290.36	289.30	290.36	290.36	289.30
					25	290.30	290.30	290.30	290.30	290.30	290.30	290.30	290.30	290.30	290.30	290.30	290.30	286.48	290.30	290.30	286.48
					10	290.16	290.16	290.16	290.16	290.16	290.16	290.16	290.16	290.16	290.16	290.16	290.16	286.14	290.16	290.16	286.14
					5	289.91	289.91	289.91	289.91	289.91	289.91	289.91	289.91	289.91	289.91	289.91	289.91	285.77	289.91	289.91	285.77
					2	287.12	287.12	287.12	287.12	287.12	287.12	287.12	287.12	287.12	287.12	287.12	287.12	285.30	287.12	287.12	285.30
999102	Road Section 14 (road overtopping elevation at Monette Ave)	2570 Monette Ave.	279.40	274.64	100	280.50	280.50	280.50	280.50	280.50	280.50	280.50	280.50	280.50	280.50	280.49	280.50	280.50	280.49		
					50	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.39	280.38	280.39	280.39	280.38
					25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.25	280.23	280.25	280.25	280.23
					10	279.98	279.98	279.98	279.98	279.98	279.98	279.98	279.98	279.98	279.98	279.98	279.98	278.95	279.98	279.98	278.94
					5	276.68	276.69	276.69	276.69	276.69	276.69	276.69	276.69	276.69	276.69	276.69	276.69	276.08	276.68	276.69	276.08
					2	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.14	275.15	275.15	275.14	275.15
1042	Road Section 15 (road overtopping elevation at Monette Ave)	Monette Ave. & Gattling	276.92	270.99	100	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71	278.71		
					50	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.42	278.41	278.42	278.20
					25	278.04	278.04	278.04	278.04	278.04	278.04	278.04	278.04	278.04	278.04	278.04	278.04	277.77	278.03	278.04	277.77
					10	277.30	277.30	277.30	277.30	277.30	277.30	277.30	277.30	277.30	277.30	277.30	277.30	274.72	277.30	277.30	274.71
					5	273.85	273.85	273.85	273.85	273.85	273.85	273.85	273.85	273.85	273.85	273.85	273.85	271.45	273.85	273.85	271.45
					2	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19	271.19
1061	Road Section 16 (road overtopping elevation at Range Line Road)	Range Line Road & Monette	274.55	264.96	100	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07		
					50	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	275.88	276.07	276.07	275.88
					25	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	276.07	274.08	276.07	276.07	274.08
					10	273.52	273.52	273.51	273.51	273.52	273.52	273.52	273.52	273.51	273.52	273.52	270.48	273.52	273.52	270.48	
					5	271.08	271.08	271.08	271.08	271.08	271.08	271.08	271.08	271.08	271.08	271.08	267.32	271.08	271.08	267.31	
					2	266.01	266.01	266.01	266.01	266.01	266.01	266.01	266.01	266.01	266.00	266.01	265.55	266.05	266.01	265.55	
5333	Road Section 17 (road overtopping elevation at Whitney Rd)	Whitney Road	267.98	262.79	100	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73		
					50	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73
					25	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	269.73	268.69	269.73	269.73	268.69	
					10	268.99	268.99	268.99	268.99	268.99	268.99	268.99	268.99	268.99	268.99	268.99	266.86	268.99	268.99	266.86	
					5	267.93	267.93	267.93	267.93	267.93	267.93	267.93	267.93	267.93	267.93	267.93	264.88	267.93	267.93	264.87	
					2	264.44	264.44	264.44	264.44	264.44	264.44	264.44	264.44	264.44	264.43	264.44	262.51	264.46	264.44	262.51	
1590	Road Section 18 (road overtopping elevation at Clearpark Dr)	Clearpark Drive	273.69	274.38	100	276.04	276.04	276.04	276.04	276.04	276.04	276.04	276.04	276.04	276.04	276.04	275.30	276.04	275.58		
					50	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.63	275.13	275.63	275.28	
					25	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.29	275.01	275.29	275.06	
					10	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.97	274.80	274.97	274.89	
					5	274.82	274.82	274.82	274.82	274.82	274.82	274.82	274.82	274.82	274.82	274.82	274.82	273.91	274.82	274.66	
					2	274.61	274.61	274.61	274.61	274.61	274.61	274.61	274.61	274.61	274.61	274.61	272.49	274.61	272.50		
999174	Road Section 19 (road overtopping elevation at Capewood Dr)+	2552 Capewood Drive	267.26	267.26	100	268.54	268.54	268.54	268.54	268.54	268.54	268.54	268.54	268.54	268.54	268.54	267.63	268.54	268.11		
					50	268.42	268.42	268.43	268.43	268.42	268.42	268.42	268.42	268.42	268.42	268.42	268.42	267.35	268.42	267.29	
					25	267.92	267.92	267.93	267.93	267.92	267.92	267.92	267.92	267.92	267.92	267.92	267.92	267.26	267.92	267.26	
					10	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.28	267.26	267.28	267.26	
					5	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	
					2	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	267.26	

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.1

InfoSWMM Model Frequency Flood Results Table

(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)																	
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED				
999239	Road Section 20 (road overtopping elevation at Capewood Dr)+	2566 Capewood Drive	267.01	267.01	100	267.47	267.47	267.47	267.47	267.47	267.47	267.47	267.47	267.47	267.47	267.47	267.12	267.47	267.28				
					50	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.40	267.03	267.40	267.01	
					25	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.23	267.01	267.23	267.01
					10	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01
					5	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01
					2	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01	267.01
999078	Road Section 20 (road overtopping elevation at Capewood Dr)+	2904 Invergarry Road	243.68	244.07	100	245.69	245.69	247.78	247.78	245.69	245.69	245.69	245.69	245.69	245.69	245.69	245.69	245.51	244.91	244.88			
					50	245.45	245.45	247.34	247.34	245.45	245.45	245.45	245.45	245.45	245.45	245.45	245.45	245.45	245.31	244.77	244.66		
					25	245.22	245.21	246.89	246.89	245.22	245.22	245.21	245.22	245.22	245.21	245.22	245.21	245.22	245.10	243.95	243.63		
					10	244.97	244.97	246.38	246.38	244.97	244.97	244.97	244.97	244.97	244.97	244.97	244.97	244.97	244.82	242.26	242.34		
					5	244.86	244.86	246.10	246.10	244.86	244.86	244.86	244.86	244.86	244.86	244.86	244.86	244.86	244.57	241.63	241.66		
					2	244.57	244.57	245.83	245.83	244.57	244.57	244.57	244.57	244.57	244.57	244.57	244.57	244.57	244.08	241.08	241.08		
324	REF 1	Railroad	258.00	239.12	100	243.82	243.77	242.50	242.49	243.81	243.85	243.46	243.83	243.82	243.59	243.82	243.26	243.82	242.29				
					50	242.96	242.89	241.91	241.86	242.94	242.99	242.61	242.97	242.96	242.71	242.96	242.69	242.95	241.84				
					25	242.08	242.11	241.03	241.00	242.09	242.08	241.86	242.08	242.08	241.96	242.08	242.08	242.08	242.08	240.90			
					10	241.01	240.96	239.75	239.74	240.98	241.02	240.89	241.05	241.01	240.92	241.01	241.01	241.01	241.01	239.60			
					5	240.11	240.07	238.91	238.91	240.09	240.11	239.97	240.12	240.11	240.06	240.11	240.11	240.11	240.11	238.81			
					2	239.09	239.05	238.02	238.02	239.08	239.08	239.00	239.09	239.09	239.06	239.09	239.09	239.09	239.09	238.02			
5521	REF 2	System Outfall	260.21	254.73	100	256.05	256.03	256.38	256.38	256.04	256.06	255.94	256.05	256.05	255.97	256.05	256.05	256.05	256.34				
					50	255.85	255.83	256.24	256.24	255.84	255.86	255.76	255.85	255.85	255.78	255.85	255.85	255.85	255.85	256.19			
					25	255.62	255.60	256.05	256.04	255.61	255.63	255.55	255.63	255.62	255.57	255.62	255.62	255.62	255.62	256.00			
					10	255.31	255.29	255.75	255.75	255.30	255.31	255.26	255.32	255.31	255.28	255.31	255.31	255.31	255.31	255.71			
					5	255.04	255.03	255.50	255.50	255.04	255.04	255.00	255.04	255.04	255.03	255.04	255.04	255.04	255.04	255.47			
					2	254.78	254.78	255.15	255.15	254.80	254.78	254.78	254.78	254.78	254.78	254.78	254.78	254.78	254.78	255.13			
5074	REF 3	Whitney Rd Outfall	262.48	259.60	100	261.66	261.50	261.16	261.14	261.66	261.57	261.28	261.56	261.66	261.32	261.66	261.66	261.66	261.25				
					50	261.23	261.16	261.09	261.03	261.23	261.20	261.05	261.17	261.23	261.09	261.23	261.23	261.23	261.23	260.97			
					25	260.86	260.84	260.79	260.78	260.86	260.79	260.71	260.90	260.86	260.77	260.86	260.86	260.86	260.86	260.57			
					10	260.49	260.48	260.44	260.42	260.49	260.54	260.31	260.60	260.49	260.38	260.49	260.50	260.49	260.49	260.33			
					5	260.22	260.21	260.21	260.21	260.22	260.38	260.10	260.29	260.22	260.19	260.22	260.22	260.22	260.22	260.11			
					2	259.89	259.89	259.90	259.89	259.90	260.03	259.63	259.93	259.90	259.80	259.90	259.90	259.90	259.90	259.71			
1059	REF 4	Dumbarton Outfall	266.64	262.94	100	268.34	268.26	268.39	268.37	268.34	268.29	266.94	267.57	268.34	267.00	268.34	268.34	268.34	267.03				
					50	268.05	267.90	268.26	268.10	268.05	267.84	266.76	267.16	268.05	266.86	268.05	268.06	268.05	268.05	266.85			
					25	267.36	267.04	267.59	267.24	267.36	266.61	266.53	266.00	267.36	266.62	267.36	267.37	267.36	267.36	266.49			
					10	266.44	266.41	266.50	266.43	266.44	265.39	265.98	265.48	266.44	266.22	266.44	266.44	266.44	266.44	265.80			
					5	265.89	265.83	265.90	265.83	265.89	264.82	264.88	264.81	265.89	265.68	265.89	265.90	265.89	265.89	264.47			
					2	264.57	264.56	264.59	264.56	264.59	263.57	262.36	263.11	264.59	263.62	264.59	264.63	264.59	264.59	262.55			
4469	REF 5	Loch Nevin Lake	256.50	254.71	100	256.03	256.02	256.37	256.37	256.03	256.05	255.92	256.03	256.03	255.96	256.03	256.04	256.03	256.34				
					50	255.84	255.82	256.24	256.23	255.83	255.85	255.75	255.84	255.84	255.77	255.84	255.84	255.84	255.84	256.19			
					25	255.61	255.59	256.04	256.03	255.60	255.61	255.54	255.62	255.61	255.56	255.61	255.61	255.61	255.61	255.99			
					10	255.29	255.28	255.75	255.74	255.29	255.29	255.24	255.30	255.29	255.27	255.29	255.29	255.29	255.29	255.70			
					5	255.03	255.01	255.49	255.49	255.02	255.02	254.98	255.03	255.03	255.01	255.03	255.03	255.03	255.03	255.46			
					2	254.67	254.65	255.14	255.14	254.67	254.67	254.64	254.67	254.67	254.66	254.67	254.67	254.67	254.67	255.12			

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.1

InfoSWMM Model Frequency Flood Results Table (Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)																		
						EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED					
1327	REF 6	Dalewood Outfall	270.21	264.60	100	268.05	268.05	268.05	268.05	268.05	268.05	268.05	268.05	267.73	267.74	268.05	268.05	268.05	267.74					
					50	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.41	267.18			
					25	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.99	266.82		
					10	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.33	266.15	266.21	266.33	266.33	266.33	266.21	
					5	265.78	265.78	265.78	265.78	265.78	265.78	265.78	265.78	265.79	265.79	265.78	265.78	265.66	265.72	265.79	265.78	265.78	265.78	265.72
					2	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.97	264.93	264.93	264.97	264.97	264.97	264.97	264.93
1365	REF 7	Baywood Dr Outfall	266.88	259.80	100	260.37	260.37	260.37	260.37	260.37	260.37	260.37	260.37	260.37	260.37	260.37	260.58	260.37	260.37	260.58				
					50	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.36	260.57	
					25	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.34	260.52	260.34	260.34	260.52	
					10	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.30	260.42	260.30	260.30	260.42	
					5	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.25	260.28	260.25	260.25	260.28	
					2	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	259.99	260.02	259.99	259.99	260.02	
99139	REF 8	Sky Lake Forebay	262.00	259.06	100	259.80	259.80	259.80	259.80	259.80	259.80	259.80	259.80	259.80	259.80	259.92	259.80	259.80	259.92					
					50	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.74	259.83	259.74	259.74	259.83			
					25	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.66	259.69	259.66	259.66	259.69			
					10	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.48	259.48	259.47	259.49	259.49	259.47	
					5	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	259.32	
					2	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	259.12	
1303	REF 9	Rangeline Rd	262.11	257.78	100	259.61	259.61	259.51	259.51	259.61	259.62	259.61	259.62	259.61	259.62	259.61	260.03	259.61	260.03					
					50	259.42	259.42	259.37	259.37	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.76	259.42			
					25	259.22	259.22	259.19	259.19	259.22	259.22	259.22	259.22	259.22	259.22	259.22	259.22	259.22	259.21	259.40	259.22			
					10	258.95	258.95	258.96	258.96	258.95	258.95	258.95	258.95	258.95	258.95	258.95	258.95	258.95	258.95	258.90	258.95			
					5	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.54	258.49	258.54				
					2	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.05	258.07	258.05			
9991415	REF 10	Sky Lake	259.50	254.79	100	256.49	256.49	256.49	256.49	256.49	256.49	256.49	256.49	256.49	256.49	256.53	256.50	256.49	256.53					
					50	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.22	256.25	256.23	256.22				
					25	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.93	255.94	255.93	255.93				
					10	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54	255.54				
					5	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24	255.24				
					2	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86	254.86				

LENGEND
###.## Blue cells indicate max. water surface elevation is within 0.50 feet of critical elevation, but does not exceed the critical elevation
###.## Red cells indicate max. water surface elevation exceeds the critical elevation.
 + Locations so designated represent curb & gutter locations.

Drainage Master Plan Windermere Study Area - Sky Lake Watershed

Table 4.1.2 Roadway Level of Service Table (Existing Conditions Vs. Alternatives)

Road Name	Level of Service (LOS) - Recurrence Interval Storm Event for which the Road is Operational	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS	LOS
SCENARIO	EXISTING CONDITIONS	Loch Nevin Alt. 1	Loch Nevin Alt. 2	Loch Nevin Alt. 3	SL-2 Alt. 1	SL-3 Alt. 1	SL-4 Alt. 1	SL-4 Alt. 2	SL-7 Alt. 1	SL-7 Alt. 3	SL-8 Alt. 2	SL-9 Alt. 1	SL-10 Alt. 1	RECOMMENDED
Laurencekirk Rd.@ Lochnevin Park	< 2-Year	< 2-Year	~5-Year	25-Year	< 2-Year	~50-Year								
2934 Invergarry Road	25-Year	25-Year	100-Year	100-Year	25-Year	25-Year	~50-Year	25-Year	25-Year	~50-Year	25-Year	~50-Year	25-Year	100-Year
3002 Scotland Road	< 2-Year	< 2-Year	< 2-Year	< 2-Year	10-Year	< 2-Year	10-Year							
2998 Dumbarton Road	< 2-Year	< 2-Year	< 2-Year	< 2-Year	10-Year	< 2-Year	10-Year							
Whitney Rd & Dumbarton	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	5-Year	< 2-Year	5-Year						
3090 Whitney Road	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	~25-Year	2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	2-Year
3096 Castlebay Road	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	100-Year	10-Year	5-Year	25-Year	5-Year	5-Year	5-Year	100-Year
Seaforth Drive	25-Year	25-Year	25-Year	25-Year	25-Year	25-Year	25-Year	25-Year	100-Year	100-Year	25-Year	25-Year	25-Year	100-Year
2772 William Tell Cove	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	5-Year	10-Year	2-Year	2-Year	2-Year	10-Year
William Tell Dr & Cove	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	~5-Year	~50-Year	2-Year	2-Year	2-Year	~50-Year
2755 William Tell Drive	~50-Year	~50-Year	~50-Year	~50-Year	~50-Year	~50-Year	~50-Year	~50-Year	100-Year	100-Year	~50-Year	~50-Year	~50-Year	100-Year
William Tell Drive & Dalewood	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year
Monette Ave. & Trezevant	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	2-Year	50-Year	2-Year	2-Year	50-Year
2570 Monette Ave.	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	10-Year	5-Year	5-Year	10-Year
Monette Ave. & Gattling	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	10-Year	5-Year	5-Year	10-Year
Range Line Road & Monette	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	25-Year	10-Year	10-Year	25-Year
Whitney Road	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	10-Year	5-Year	5-Year	10-Year
Clearpark Drive	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	2-Year	< 2-Year	2-Year
2552 Capewood Drive	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~50-Year	~10-Year	~50-Year
2566 Capewood Drive	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	~50-Year	10-Year	50-Year
2904 Invergarry Road	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	10-Year	25-Year

LEGEND

- Green cells indicate improvement in LOS.
- Pink cells indicate reduction in LOS.
- ~xx-Year Indicates road crossing flooded by less than 0.1' at the specified frequency

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

InfoSWMM Model Frequency Flood Results Table (Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)														
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED		
999038	FFE 1	3478 Rolling Woods Cove	290.07	287.42	100	290.07	289.69	289.38	290.07	290.07	290.07	290.07	290.07	290.07	290.07	290.07	290.07	289.69		
					50	289.99	288.82	289.02	289.99	289.99	289.99	289.99	289.99	289.99	289.99	289.99	289.99	289.99	288.82	
					25	289.90	287.42	288.52	289.90	289.90	289.90	289.90	289.90	289.90	289.90	289.90	289.90	289.90	289.90	287.47
					10	289.68	286.53	288.54	289.68	289.68	289.68	289.68	289.68	289.68	289.68	289.68	289.68	289.68	289.68	286.53
					5	289.28	286.46	288.09	289.28	289.28	289.28	289.28	289.28	289.28	289.28	289.28	289.28	289.28	289.28	286.46
					2	287.62	286.40	287.59	287.62	287.62	287.62	287.62	287.62	287.62	287.62	287.62	287.62	287.62	287.62	286.40
999249	FFE 2	3475 Scenic Highway	259.50	259.41	100	259.59	259.58	259.59	259.55	259.24	259.59	259.59	259.59	259.59	259.59	259.59	259.59	259.59	259.53	
					50	259.56	259.55	259.56	259.51	259.15	259.56	259.56	259.56	259.56	259.56	259.56	259.56	259.56	259.56	259.51
					25	259.54	259.54	259.54	259.46	259.04	259.54	259.54	259.54	259.54	259.54	259.54	259.54	259.54	259.54	259.47
					10	259.51	259.51	259.51	259.37	259.00	259.51	259.51	259.51	259.51	259.51	259.51	259.51	259.51	259.51	259.37
					5	259.49	259.49	259.49	259.35	259.00	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.49	259.35
					2	259.42	259.42	259.42	259.27	259.00	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.42	259.30
239	FFE 3	3517 Andy Way	249.70	248.00	100	250.05	249.59	250.09	249.79	250.04	250.05	250.05	250.05	250.05	250.05	250.05	250.05	250.05	249.31	
					50	249.68	249.30	249.75	249.39	249.68	249.68	249.68	249.68	249.68	249.68	249.68	249.68	249.68	249.68	249.09
					25	249.34	249.00	249.40	249.05	249.35	249.34	249.34	249.34	249.34	249.34	249.34	249.34	249.34	249.34	248.67
					10	248.93	248.70	248.97	248.50	248.92	248.93	248.93	248.93	248.93	248.93	248.93	248.93	248.93	248.93	248.11
					5	248.39	248.33	248.38	247.87	248.55	248.39	248.39	248.39	248.39	248.38	248.38	248.39	248.39	248.39	247.67
					2	248.23	248.19	248.23	247.35	248.23	248.23	248.23	248.23	248.23	248.23	248.23	248.23	248.23	248.23	247.29
999213	FFE 4	3378 Jewell Road	246.15	246.08	100	246.49	246.49	246.49	246.49	246.77	246.35	246.49	246.49	246.49	246.49	246.49	246.49	246.49	246.35	
					50	246.40	246.40	246.40	246.40	246.73	246.31	246.40	246.40	246.40	246.40	246.40	246.40	246.40	246.40	246.31
					25	246.28	246.28	246.28	246.28	246.68	246.25	246.28	246.28	246.28	246.28	246.28	246.28	246.28	246.28	246.25
					10	246.18	246.18	246.18	246.18	246.61	246.17	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.17
					5	246.15	246.15	246.15	246.15	246.59	246.14	246.15	246.15	246.15	246.15	246.15	246.15	246.15	246.15	246.14
					2	246.12	246.12	246.12	246.12	246.56	246.11	246.12	246.12	246.12	246.12	246.12	246.12	246.12	246.12	246.11
800291	FFE 5	3500 James Road	241.50	239.12	100	243.88	243.47	243.98	243.42	243.87	243.87	243.88	243.88	243.88	243.88	243.88	243.88	243.88	242.82	
					50	243.37	242.91	243.44	242.72	243.37	243.37	243.37	243.37	243.37	243.37	243.37	243.37	243.37	243.37	241.69
					25	242.70	241.66	242.81	241.20	242.69	242.70	242.70	242.70	242.70	242.70	242.70	242.70	242.70	242.70	240.16
					10	240.78	240.21	240.94	240.24	240.68	240.78	240.78	240.78	240.78	240.78	240.78	240.78	240.78	240.78	239.85
					5	240.21	240.21	240.21	239.36	240.21	240.21	240.21	240.21	240.21	240.21	240.21	240.21	240.21	240.21	239.29
					2	239.80	239.74	239.80	238.67	239.82	239.80	239.80	239.80	239.80	239.80	239.80	239.80	239.80	239.80	238.57
100239	FFE 6	2622 Walnut Road	235.50	232.91	100	237.06	237.06	237.06	237.07	237.06	237.06	237.06	237.06	237.06	237.06	237.06	237.06	237.06	237.06	
					50	236.90	236.88	236.91	236.90	236.88	236.90	236.90	236.92	236.92	236.89	236.90	236.88	236.88	236.89	
					25	236.16	236.16	236.16	236.16	236.16	236.15	236.15	236.15	236.16	236.15	236.15	236.15	236.15	236.15	
					10	235.18	235.18	235.18	235.18	235.18	235.17	235.18	235.18	235.18	235.18	235.18	235.18	235.18	235.17	
					5	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	234.23	
					2	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	233.39	

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)																
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED				
100585	FFE 7	2586 Walnut Road	236.20	234.54	100	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59	238.59			
					50	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	238.53	
					25	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42	238.42
					10	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81
					5	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16	236.16
					2	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58	234.58
999232	FFE 8	Scenic Hills Baptist Church	255.97	255.00	100	256.09	256.09	256.09	256.09	256.09	256.09	255.61	256.09	256.09	256.09	256.09	256.09	256.09	256.09	255.61		
					50	255.94	255.94	255.94	255.94	255.94	255.94	255.45	255.94	255.94	255.94	255.94	255.94	255.94	255.94	255.94	255.45	
					25	255.84	255.84	255.84	255.84	255.84	255.83	255.83	255.33	255.84	255.84	255.84	255.84	255.84	255.84	255.84	255.33	
					10	255.67	255.67	255.67	255.67	255.70	255.70	255.00	255.67	255.67	255.67	255.67	255.67	255.67	255.67	255.67	255.67	255.00
					5	255.37	255.37	255.37	255.37	255.44	255.44	255.00	255.37	255.37	255.37	255.37	255.37	255.37	255.37	255.37	255.37	255.00
					2	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00	255.00
800431	Road Section 1 (road overtopping elevation at Rolling Woods Cv)	3478 Rollin Woods CV	287.73	285.77	100	289.81	288.96	286.84	289.81	289.81	289.81	289.81	289.81	289.81	289.81	289.81	289.81	289.81	289.81	288.96		
					50	289.72	286.56	286.56	289.72	289.72	289.72	289.72	289.72	289.72	289.72	289.72	289.72	289.72	289.72	289.72	286.56	
					25	289.59	285.80	286.25	289.59	289.59	289.59	289.59	289.59	289.59	289.59	289.59	289.59	289.59	289.59	289.59	285.80	
					10	289.04	284.55	286.25	289.04	289.04	289.04	289.04	289.04	289.04	289.04	289.04	289.04	289.04	289.04	289.04	284.55	
					5	287.55	284.50	285.47	287.55	287.55	287.55	287.55	287.55	287.55	287.55	287.55	287.55	287.55	287.55	287.55	284.50	
					2	285.89	284.42	285.16	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	285.89	284.42
100840	Road Section 2 (road overtopping elevation at Rolling Woods Cv)	3488 Rolling Woods Cv	288.52	288.52	100	289.69	288.94	288.63	289.69	289.69	289.69	289.69	289.69	289.69	289.69	289.69	289.69	289.69	289.69	288.94		
					50	289.63	288.52	288.52	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	288.52	
					25	289.53	288.52	288.52	289.53	289.53	289.53	289.53	289.53	289.53	289.53	289.53	289.53	289.53	289.53	289.53	288.52	
					10	289.02	288.52	288.52	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	289.02	288.52
					5	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52
					2	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52	288.52
100819	Road Section 3 (road overtopping elevation at Rolling Woods Dr/Rolling Woods Cv)	3475 Rolling Woods Dr	287.35	286.57	100	288.23	286.67	286.59	288.23	288.23	288.23	288.23	288.23	288.23	288.23	288.23	288.23	288.23	288.23	286.67		
					50	288.09	286.57	286.57	288.09	288.09	288.09	288.09	288.09	288.09	288.09	288.09	288.09	288.09	288.09	288.09	286.57	
					25	287.87	286.57	286.57	287.87	287.87	287.87	287.87	287.87	287.87	287.87	287.87	287.87	287.87	287.87	287.87	286.57	
					10	286.71	286.57	286.57	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.71	286.57
					5	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57
					2	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57	286.57
6005	Road Section 4 (road overtopping elevation at Rolling Woods Dr/Scenic Hwy)	3534 Scenic Highway	265.70	266.08	100	267.15	267.15	267.15	267.07	267.14	267.15	267.15	267.15	267.15	267.15	267.15	267.15	267.15	267.15	266.89		
					50	267.12	267.12	267.12	266.68	267.12	267.12	267.12	267.12	267.12	267.12	267.12	267.12	267.12	267.12	267.12	266.71	
					25	267.03	267.03	267.03	266.20	267.02	267.03	267.03	267.03	267.03	267.03	267.03	267.03	267.03	267.03	267.03	266.23	
					10	266.80	266.80	266.80	265.75	266.79	266.80	266.80	266.80	266.80	266.80	266.80	266.80	266.80	266.80	266.80	266.80	265.78
					5	266.57	266.57	266.57	265.29	266.48	266.57	266.57	266.57	266.57	266.57	266.49	266.49	266.49	266.57	266.57	266.57	265.36
					2	266.13	266.13	266.13	262.81	266.12	266.13	266.13	266.13	266.13	266.13	266.13	266.13	266.13	266.13	266.13	266.13	263.23

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)														
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED		
6008	Road Section 5 (road overtopping elevation at Scenic Highway)	Rolling Woods Drive / Scenic Hwy	265.23	263.44	100	264.45	264.45	264.45	264.21	264.40	264.45	264.45	264.45	264.45	264.45	264.45	264.45	264.14		
					50	264.38	264.38	264.38	264.03	264.32	264.38	264.38	264.38	264.38	264.38	264.38	264.38	264.38	264.04	
					25	264.21	264.21	264.21	263.59	264.15	264.21	264.21	264.21	264.21	264.21	264.21	264.21	264.21	264.21	263.62
					10	264.07	264.07	264.07	263.26	264.00	264.07	264.07	264.07	264.07	264.07	264.07	264.07	264.07	264.07	263.28
					5	263.92	263.92	263.92	263.01	263.78	263.92	263.92	263.92	263.92	263.92	263.92	263.92	263.92	263.92	263.04
					2	263.51	263.51	263.51	262.08	263.35	263.51	263.51	263.51	263.51	263.51	263.50	263.51	263.51	263.51	262.27
100593	Road Section 6 (road overtopping elevation at Jewell Road)	3378 Jewell Road	245.84	244.90	100	246.46	246.46	246.46	246.46	246.48	246.30	246.46	246.46	246.46	246.46	246.46	246.46	246.30		
					50	246.38	246.38	246.38	246.38	246.37	246.16	246.38	246.38	246.38	246.38	246.38	246.38	246.38	246.16	
					25	246.27	246.27	246.27	246.27	246.26	246.00	246.27	246.27	246.27	246.27	246.27	246.27	246.27	246.27	246.00
					10	246.14	246.14	246.14	246.14	246.14	245.79	246.14	246.14	246.14	246.14	246.14	246.14	246.14	246.14	245.79
					5	246.06	246.06	246.06	246.06	246.06	245.58	246.06	246.06	246.06	246.06	246.06	246.06	246.06	246.06	245.58
					2	245.90	245.90	245.90	245.90	245.91	245.23	245.90	245.90	245.90	245.90	245.90	245.90	245.90	245.90	245.23
100520	Road Section 7 (road overtopping elevation at New Allen Road)	2932 New Allen Road	259.10	257.56	100	260.61	260.61	260.61	260.61	260.72	260.72	259.64	260.61	260.61	260.61	260.61	260.61	259.64		
					50	260.40	260.40	260.40	260.40	260.46	260.46	258.83	260.40	260.40	260.40	260.40	260.40	260.40	258.83	
					25	260.17	260.17	260.17	260.17	260.40	260.41	257.96	260.17	260.17	260.17	260.17	260.17	260.17	260.17	257.96
					10	259.86	259.86	259.86	259.86	260.22	260.22	257.24	259.85	259.86	259.86	259.86	259.85	259.86	259.86	257.24
					5	259.10	259.05	259.06	259.08	260.07	260.07	256.66	259.05	259.06	259.06	259.10	259.06	259.05	259.05	256.66
					2	258.40	258.40	258.40	258.40	258.40	258.40	255.73	258.40	258.40	258.40	258.40	258.40	258.40	258.40	255.73
100518	Road Section 8 (road overtopping elevation at 2910 New Allen Road)	2910 New Allen Road	257.57	254.24	100	258.02	258.02	258.02	258.02	257.97	257.97	257.79	258.02	258.02	258.02	258.02	258.02	257.79		
					50	258.00	258.00	258.00	258.00	257.94	257.94	257.70	258.00	258.00	258.00	258.00	258.00	258.00	257.70	
					25	257.92	257.91	257.92	257.92	257.88	257.87	257.62	257.92	257.91	257.92	257.92	257.92	257.92	257.62	
					10	257.78	257.78	257.78	257.78	257.73	257.73	257.16	257.78	257.78	257.78	257.78	257.78	257.78	257.16	
					5	257.65	257.65	257.65	257.65	257.61	257.61	256.38	257.65	257.65	257.65	257.65	257.65	257.65	256.38	
					2	255.87	255.87	255.87	255.87	255.87	255.87	255.07	255.87	255.87	255.87	255.87	255.87	255.87	255.87	
999193	Road Section 9 (road overtopping elevation at New Allen & Scenic Hwy)	New Allen & Scenic Hwy	257.47	257.47	100	258.35	258.35	258.35	258.35	258.43	258.43	257.73	258.35	258.35	258.35	258.35	258.35	257.72		
					50	258.09	258.09	258.09	258.09	258.14	258.14	257.47	258.09	258.09	258.09	258.09	258.09	258.09	257.47	
					25	257.93	257.93	257.93	257.93	257.96	257.96	257.47	257.93	257.93	257.93	257.93	257.93	257.93	257.47	
					10	257.78	257.78	257.78	257.78	257.86	257.86	257.47	257.78	257.78	257.78	257.78	257.78	257.78	257.47	
					5	257.47	257.47	257.47	257.47	257.75	257.75	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	
					2	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	257.47	
100066	Road Section 10 (road overtopping elevation at Scotland Rd & Scenic Hwy)	2847 Scotland Rd	255.35	252.75	100	255.80	255.80	255.80	255.80	255.80	255.80	255.80	254.70	255.80	255.80	255.80	255.80	254.80		
					50	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	255.71	253.45	
					25	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	255.59	253.36	
					10	255.35	255.35	255.35	255.35	255.35	255.35	255.35	255.35	253.19	255.35	255.35	255.35	255.35	253.19	
					5	253.25	253.22	253.24	253.25	253.13	253.12	253.25	253.07	253.24	253.23	253.23	253.25	253.22	253.07	
					2	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	252.79	

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)												
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED
100074	Road Section 11 (road overtopping elevation at Scotland Rd & Scenic Hwy)	Scotland Rd & Scenic Hwy	254.86	251.76	100	255.39	255.39	255.39	255.39	255.39	255.39	255.39	254.02	255.39	255.39	255.39	255.39	254.11
					50	255.31	255.31	255.31	255.31	255.31	255.31	255.31	255.31	255.31	255.31	255.31	255.31	252.35
					25	255.21	255.21	255.21	255.21	255.21	255.21	255.21	255.21	255.21	255.21	255.21	255.21	251.92
					10	255.06	255.06	255.06	255.06	255.06	255.06	255.06	255.06	255.06	255.06	255.06	255.06	251.80
					5	253.20	253.17	253.19	253.21	253.07	253.07	253.20	251.71	253.19	253.19	253.20	253.18	251.71
					2	251.94	251.94	251.94	251.94	251.94	251.94	251.94	251.57	251.94	251.94	251.94	251.94	251.57
750	Road Section 12 (road overtopping elevation at 3160 Scenic Hwy)	3160 Scenic Hwy	252.63	249.23	100	253.56	253.56	253.56	253.56	253.56	253.55	253.53	252.81	253.56	253.56	253.53	253.56	252.90
					50	253.45	253.45	253.45	253.45	253.45	253.45	253.46	251.58	253.45	253.45	253.45	253.45	251.75
					25	253.36	253.36	253.36	253.36	253.36	253.36	253.37	249.64	253.36	253.36	253.36	253.36	249.64
					10	253.20	253.20	253.20	253.20	253.20	253.20	253.21	249.52	253.20	253.20	253.20	253.20	249.52
					5	251.23	251.22	251.24	251.23	251.03	251.03	251.17	249.43	251.23	251.25	251.24	251.23	249.43
					2	249.41	249.41	249.41	249.41	249.41	249.41	249.41	249.30	249.41	249.41	249.41	249.41	249.30
100087	Road Section 13 (road overtopping elevation at Scenic Hwy & Dundee)	3186 Scenic Hwy	252.60	250.96	100	255.77	255.72	255.77	255.77	255.76	255.73	255.50	255.21	255.80	255.76	255.50	255.78	255.14
					50	255.15	255.15	255.50	255.23	255.15	255.23	255.16	254.28	255.50	255.15	255.23	255.15	254.41
					25	254.95	254.98	254.87	254.95	254.79	254.92	254.98	252.57	254.97	254.88	254.88	254.89	252.54
					10	254.14	254.14	254.14	254.14	254.14	254.14	254.16	251.89	254.14	254.14	254.14	254.14	251.89
					5	251.62	251.62	251.62	251.61	251.62	251.62	251.62	251.62	251.62	251.62	251.62	251.62	251.62
					2	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29	251.29
100085	Road Section 14 (road overtopping elevation at Scenic Hwy & Dundee)	Scenic Hwy & Dundee	254.00	249.61	100	255.65	255.65	255.61	255.66	255.84	255.63	255.21	254.95	255.63	255.84	255.20	255.70	254.98
					50	255.01	255.04	255.02	255.01	255.04	255.01	255.05	254.23	255.04	255.05	255.01	255.04	254.38
					25	254.80	254.77	254.76	254.80	254.75	254.77	254.81	251.82	254.76	254.76	254.75	254.78	251.79
					10	254.07	254.07	254.07	254.07	254.06	254.06	254.09	250.93	254.07	254.07	254.07	254.07	250.93
					5	251.30	251.26	251.27	251.30	251.09	251.08	251.32	250.54	251.28	251.30	251.31	251.29	250.54
					2	249.90	249.90	249.90	249.90	249.90	249.90	249.91	250.08	249.90	249.90	249.90	249.90	250.08
999198	Road Section 15 (road overtopping elevation at Scotland Rd)	2786 Scotland Rd	246.00	246.00	100	246.35	246.35	246.35	246.35	246.35	246.35	246.35	246.00	246.35	246.35	246.35	246.35	246.00
					50	246.26	246.26	246.26	246.26	246.26	246.26	246.26	246.00	246.26	246.26	246.26	246.26	246.00
					25	246.10	246.10	246.10	246.10	246.10	246.10	246.10	246.00	246.10	246.10	246.10	246.10	246.00
					10	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00
					5	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00
					2	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00	246.00
800158	Road Section 16 (road overtopping elevation at 3062 James Rd)	3062 James Rd	241.83	241.62	100	243.97	243.97	243.97	243.97	243.97	243.97	243.97	243.97	240.06	243.96	243.97	243.99	240.06
					50	243.80	243.80	243.80	243.80	243.80	243.80	243.80	243.80	239.83	243.78	243.79	243.84	239.83
					25	243.58	243.59	243.59	243.58	243.58	243.58	243.58	243.58	239.64	243.55	243.56	243.65	239.64
					10	243.18	243.18	243.18	243.18	243.18	243.18	243.18	243.18	239.39	243.11	243.11	243.26	239.39
					5	242.73	242.73	242.73	242.73	242.73	242.73	242.73	242.73	239.22	242.71	242.71	242.74	239.22
					2	242.52	242.52	242.52	242.52	242.52	242.52	242.52	242.52	239.06	242.52	242.52	242.52	239.06

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)												
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED
800154	Road Section 17 (road overtopping elevation at 3053 James Rd)	3053 James Rd	241.87	241.24	100	244.26	244.26	244.26	244.26	244.26	244.26	244.26	244.26	239.99	244.24	244.25	244.31	239.99
					50	244.02	244.02	244.02	244.02	244.02	244.02	244.02	244.02	239.78	244.00	244.01	244.05	239.78
					25	243.82	243.82	243.82	243.82	243.82	243.82	243.82	243.82	239.60	243.80	243.81	243.85	239.60
					10	243.61	243.61	243.61	243.61	243.61	243.61	243.61	243.61	239.37	243.59	243.59	243.63	239.37
					5	242.95	242.95	242.95	242.95	242.95	242.95	242.95	242.95	239.22	242.80	242.80	243.01	239.22
					2	242.22	242.22	242.22	242.22	242.22	242.22	242.22	242.22	239.00	242.22	242.22	242.22	239.00
999210	Road Section 18 (road overtopping elevation at 3053 James Rd)+	3053 James Rd	243.00	243.00	100	243.97	243.97	243.97	243.97	243.97	243.97	243.97	243.97	243.00	243.96	243.96	243.99	243.00
					50	243.80	243.80	243.80	243.80	243.80	243.80	243.80	243.80	243.00	243.78	243.79	243.84	243.00
					25	243.61	243.61	243.61	243.61	243.61	243.61	243.61	243.61	243.00	243.59	243.60	243.65	243.00
					10	243.50	243.50	243.50	243.50	243.50	243.50	243.50	243.50	243.00	243.50	243.50	243.51	243.00
					5	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00
					2	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00	243.00
999207	Road Section 19 (road overtopping elevation at James Road Underpass)+	James Road Underpass	228.50	229.38	100	232.83	232.76	232.76	232.83	232.90	232.83	232.83	232.83	231.90	231.91	232.14	232.82	231.78
					50	232.04	232.03	232.03	232.04	232.04	232.04	232.04	232.04	231.37	230.88	231.49	232.06	231.31
					25	231.45	231.49	231.49	231.45	231.45	231.45	231.45	231.45	231.09	230.26	231.10	231.50	231.03
					10	230.82	230.82	230.82	230.82	230.82	230.82	230.82	230.82	230.72	229.62	230.69	230.83	230.66
					5	230.45	230.45	230.45	230.45	230.45	230.45	230.45	230.45	230.38	229.02	230.41	230.44	230.34
					2	229.89	229.89	229.89	229.89	229.89	229.89	229.89	229.89	229.76	227.81	229.86	229.89	229.74
100578	Road Section 20 (road overtopping elevation at 2982 Scenic Hwy)	2982 Scenic Hwy	246.90	242.90	100	248.67	248.48	248.48	248.67	248.67	248.67	248.67	248.67	248.48	248.67	246.55	245.64	245.88
					50	248.49	248.39	248.39	248.49	248.49	248.49	248.49	248.49	248.36	248.48	246.05	244.50	245.46
					25	248.21	248.28	248.28	248.21	248.22	248.22	248.21	248.22	247.93	248.21	245.33	243.75	244.83
					10	247.13	247.31	247.31	247.13	247.13	247.13	247.13	247.13	246.18	247.05	244.24	243.65	244.01
					5	244.78	244.78	244.78	244.78	244.78	244.78	244.78	244.78	244.84	244.84	243.50	243.57	243.50
					2	243.26	243.26	243.26	243.26	243.26	243.26	243.26	243.26	243.26	243.26	243.17	243.02	243.17
100581	REF 1	Scenic Hill Accelerated School	263.58	260.15	100	265.06	264.28	265.11	265.06	265.06	265.06	265.06	265.06	265.06	265.06	265.06	265.06	264.28
					50	264.71	263.87	264.78	264.71	264.71	264.71	264.71	264.71	264.71	264.71	264.71	264.71	263.87
					25	264.30	262.00	264.36	264.30	264.30	264.30	264.30	264.30	264.30	264.30	264.30	264.30	262.00
					10	262.94	260.64	262.74	262.94	262.96	262.94	262.94	262.94	262.94	262.94	262.94	262.94	260.64
					5	261.05	260.16	261.04	261.05	261.05	261.05	261.05	261.05	261.05	261.05	261.05	261.05	260.16
					2	260.18	260.05	260.18	260.18	260.18	260.18	260.18	260.18	260.18	260.18	260.18	260.18	260.05
11158	REF 2	Scenic Hwy Outfall	260.80	252.33	100	252.67	252.65	252.67	252.67	252.71	252.67	252.67	252.67	252.67	252.67	252.67	252.67	252.65
					50	252.66	252.64	252.66	252.66	252.70	252.66	252.66	252.66	252.66	252.66	252.66	252.66	252.64
					25	252.65	252.55	252.65	252.65	252.69	252.65	252.65	252.65	252.65	252.65	252.65	252.65	252.55
					10	252.61	252.43	252.60	252.61	252.64	252.61	252.61	252.61	252.61	252.61	252.61	252.61	252.42
					5	252.44	252.40	252.44	252.44	252.48	252.44	252.44	252.44	252.44	252.44	252.44	252.44	252.38
					2	252.37	252.35	252.37	252.35	252.42	252.37	252.37	252.37	252.37	252.37	252.37	252.37	252.33

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.1

**InfoSWMM Model Frequency Flood Results Table
(Existing Conditions Vs. Alternatives)**

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (July 3, 2015) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)													
						EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED	
279	REF 3	Andy Way Drive	250.19	244.55	100	247.46	246.85	247.51	247.11	247.46	247.46	247.46	247.46	247.46	247.46	247.46	247.46	246.44	
					50	246.96	246.42	247.05	246.53	246.96	246.96	246.96	246.96	246.96	246.96	246.96	246.96	246.96	246.08
					25	246.45	245.94	246.55	246.00	246.47	246.45	246.45	246.45	246.45	246.45	246.45	246.45	246.45	245.41
					10	245.81	245.48	245.87	245.19	245.79	245.81	245.81	245.81	245.81	245.81	245.81	245.81	245.81	244.73
					5	245.06	245.01	245.05	244.48	245.26	245.06	245.06	245.06	245.06	245.05	245.05	245.06	245.06	244.29
					2	244.86	244.82	244.86	244.05	244.87	244.86	244.86	244.86	244.86	244.86	244.86	244.86	244.86	244.00
5841	REF 4	Jewell Rd Outfall	245.64	244.83	100	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	245.75	
					50	245.66	245.66	245.66	245.66	245.66	245.67	245.66	245.66	245.66	245.66	245.66	245.66	245.67	
					25	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	245.56	
					10	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	245.49	
					5	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	245.42	
					2	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	245.19	
11191	REF 5	James Road	242.87	239.45	100	242.19	242.19	242.19	242.19	242.17	242.18	242.19	242.19	242.19	242.19	242.19	242.19	242.18	
					50	241.85	241.85	241.85	241.85	241.83	241.84	241.85	241.85	241.85	241.85	241.85	241.85	241.84	
					25	241.41	241.41	241.41	241.41	241.40	241.40	241.41	241.41	241.41	241.41	241.41	241.41	241.40	
					10	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	240.89	
					5	240.53	240.53	240.53	240.53	240.53	240.53	240.53	240.53	240.53	240.53	240.53	240.53		
					2	240.34	240.34	240.34	240.34	240.34	240.33	240.34	240.34	240.34	240.34	240.34	240.34		

LEGEND

- ###.## Blue cells indicate max. water surface elevation is within 0.50 feet of critical elevation, but does not exceed the critical elevation.
- ###.## Red cells indicate max. water surface elevation exceeds the critical elevation.
- + Locations so designated represent curb & gutter locations.

Drainage Master Plan Windermere Study Area - James Park Watershed

Table 4.2.2 Roadway Level of Service Table (Existing Conditions Vs. Alternatives)

Road Name	Level of Service (LOS) - Recurrence Interval Storm Event for which the Road is Operational	LOS	LOS	LOS	LOS								
SCENARIO	EXISTING CONDITIONS	JP-1 Alt. 1	JP-1 Alt. 2	JP-2 Alt. 1	JP-2 Alt. 2	JP-4 Alt. 1	JP-5 Alt. 1	JP-6 Alt. 1	JP-9 Alt. 1	JP-10 Alt. 1	JP-11 Alt. 1	JP-11 Alt. 2	RECOMMENDED
3478 Rolling Woods CV	5-Year	50-Year	100-Year	5-Year	5-Year	5-Year	50-Year						
3488 Rolling Woods Drive	5-Year	50-Year	50-Year	5-Year	5-Year	5-Year	50-Year						
3475 Rolling Woods Drive	10-Year	100-Year	100-Year	10-Year	10-Year	10-Year	100-Year						
3534 Scenic Highway	< 2-Year	< 2-Year	< 2-Year	~10-Year	< 2-Year	< 2-Year	< 2-Year	~10-Year					
Rolling Woods Drive / Scenic Hwy	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year	100-Year
3378 Jewell Road	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	10-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	10-Year
2932 New Allen Road	5-Year	5-Year	5-Year	5-Year	2-Year	2-Year	50-Year	5-Year	5-Year	5-Year	5-Year	5-Year	50-Year
2910 New Allen Road	~5-Year	~5-Year	~5-Year	~5-Year	~5-Year	~5-Year	~25-Year	~5-Year	~5-Year	~5-Year	~5-Year	~5-Year	~25-Year
New Allen & Scenic Hwy	5-Year	5-Year	5-Year	5-Year	2-Year	2-Year	50-Year	5-Year	5-Year	5-Year	5-Year	5-Year	50-Year
2847 Scotland Rd	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	100-Year	10-Year	10-Year	10-Year	10-Year	100-Year
Scotland Rd & Scenic Hwy	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	100-Year	5-Year	5-Year	5-Year	5-Year	100-Year
3160 Scenic Hwy	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	50-Year	5-Year	5-Year	5-Year	5-Year	50-Year
3186 Scenic Hwy	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	25-Year	5-Year	5-Year	5-Year	5-Year	25-Year
Scenic Hwy & Dundee	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	~10-Year	25-Year	~10-Year	~10-Year	~10-Year	~10-Year	25-Year
2786 Scotland Rd	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	10-Year	100-Year	10-Year	10-Year	10-Year	10-Year	100-Year
3062 James Rd	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	100-Year	< 2-Year	< 2-Year	< 2-Year	100-Year
3053 James Rd	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	100-Year	< 2-Year	< 2-Year	< 2-Year	100-Year
3053 James Rd	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	100-Year	5-Year	5-Year	5-Year	100-Year
James Road Underpass	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	< 2-Year	2-Year	< 2-Year	< 2-Year	< 2-Year
2982 Scenic Hwy	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	5-Year	10-Year	5-Year	100-Year	100-Year	100-Year

LEGEND

	Green cells indicate improvement in LOS.
	Pink cells indicate reduction in LOS.
~xx-Year	Indicates road crossing flooded by less than 0.1' at the specified frequency

Drainage Master Plan Windermere Study Area - Windermere Watershed

Table 4.3.1 InfoSWMM Model Frequency Flood Results Table (Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (Sept. 11, 2014) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)				
						EXISTING CONDITIONS	W-2 Alt. 1	W-3 Alt. 1	W-3 Alt. 2	RECOMMENDED
102973	Road Section 1 (road overtopping elevation at Lakewood Dr)	Lakewood Dr	291.14	288.88	100	291.53	291.20	291.53	291.53	291.20
					50	291.43	291.20	291.43	291.43	291.20
					25	291.32	289.63	291.32	291.32	289.63
					10	291.19	288.80	291.19	291.19	288.80
					5	291.19	287.93	291.19	291.19	287.93
					2	290.19	287.36	290.19	290.19	287.36
101938_STOR	Road Section 2 (road overtopping elevation at Sweet Tree Dr)	3740 Sweet Tree Dr.	265.00	265.19	100	265.54	265.54	265.51	265.37	265.51
					50	265.51	265.51	265.48	265.31	265.48
					25	265.47	265.47	265.37	265.20	265.37
					10	265.37	265.37	265.13	264.91	265.13
					5	265.32	265.32	264.28	263.89	264.28
					2	265.22	265.22	263.34	263.06	263.34
999218	Road Section 3 (road overtopping elevation at Sweet Tree Dr)+	3756 Sweet Tree Dr.	261.10	261.52	100	261.83	261.83	261.80	261.69	261.80
					50	261.79	261.79	261.75	261.61	261.75
					25	261.75	261.75	261.67	261.52	261.67
					10	261.69	261.69	261.43	261.10	261.43
					5	261.62	261.62	261.10	261.10	261.10
					2	261.55	261.55	261.10	261.10	261.10
101942	Road Section 4 (road overtopping elevation at Sweet Tree Dr)	3786 Sweet Tree Dr.	255.78	253.13	100	256.10	256.10	256.09	255.90	256.09
					50	256.06	256.06	256.03	253.80	256.03
					25	256.00	256.00	255.88	253.30	255.88
					10	254.53	254.53	253.33	253.01	253.33
					5	253.63	253.63	253.19	252.88	253.19
					2	253.25	253.25	253.10	252.77	253.10

Drainage Master Plan Windermere Study Area - Windermere Watershed

Table 4.3.1 InfoSWMM Model Frequency Flood Results Table (Existing Conditions Vs. Alternatives)

Junction ID	Location Description	Address	Critical WSEL (FFE or Min. Top of Road) (ft)	Calibration Event (Sept. 11, 2014) WSEL (ft)	Storm Recurrence Interval (yr)	Modeled Water Surface Elev. (ft)				
						EXISTING CONDITIONS	W-2 Alt. 1	W-3 Alt. 1	W-3 Alt. 2	RECOMMENDED
999219	Road Section 5 (road overtopping elevation at Sweet Tree Dr)+	Sweet Tree Dr. & Woodhills	249.00	249.00	100	249.35	249.35	249.35	249.08	249.35
					50	249.34	249.34	249.31	249.00	249.31
					25	249.27	249.27	249.08	249.00	249.08
					10	249.00	249.00	249.00	249.00	249.00
					5	249.00	249.00	249.00	249.00	249.00
					2	249.00	249.00	249.00	249.00	249.00
102853	REF 1	Lake Windermere	287.33	282.80	100	283.78	283.77	283.78	283.78	283.77
					50	283.59	283.59	283.59	283.59	283.59
					25	283.39	283.39	283.39	283.39	283.39
					10	283.14	283.14	283.14	283.14	283.14
					5	282.94	282.94	282.94	282.94	282.94
					2	282.67	282.67	282.67	282.67	282.67
102311	REF 2	Woodhills Dr Outlet	254.61	244.28	100	245.73	245.74	245.77	245.46	245.76
					50	245.60	245.60	245.53	245.45	245.53
					25	245.48	245.48	245.44	245.43	245.44
					10	245.42	245.42	245.42	245.42	245.42
					5	245.40	245.40	245.41	245.40	245.41
					2	245.19	245.19	245.11	245.19	245.11

LEGEND

- ###.## Blue cells indicate max. water surface elevation is within 0.50 feet of critical elevation, but does not exceed the critical elevation.
- ###.## Red cells indicate max. water surface elevation exceeds the critical elevation.
- +
- Locations so designated represent curb & gutter locations.

Drainage Master Plan Windermere Study Area - Windermere Watershed

Table 4.3.2 Roadway Level of Service Table (Existing Conditions Vs. Alternatives)

Road Name	Level of Service (LOS) - Recurrence Interval Storm Event for which the Road is Operational	LOS	LOS	LOS	LOS
SCENARIO	EXISTING CONDITIONS	W-2 Alt. 1	W-3 Alt. 1	W-3 Alt. 2	RECOMMENDED
Lakewood Dr	~5-Year	~50-Year	~5-Year	~5-Year	~50-Year
3740 Sweet Tree Dr.	< 2-Year	< 2-Year	5-Year	10-Year	5-Year
3756 Sweet Tree Dr.	< 2-Year	< 2-Year	5-Year	10-Year	5-Year
3786 Sweet Tree Dr.	10-Year	10-Year	~25-Year	50-Year	~25-Year
Sweet Tree Dr. & Woodhills	10-Year	10-Year	~25-Year	100-Year	~25-Year

LEGEND

~xx-Year

Green cells indicate improvement in LOS.

Pink cells indicate reduction in LOS.

Indicates road crossing flooded by less than 0.1' at the specified frequency.