



# **Aquatic Life Use Support for Southwest Ohio River Tributaries, 2014.**

**Butler, Hamilton, Brown, and Clermont Counties, Ohio**



Division of Surface Water  
June 1st, 2016

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Based on OHIO EPA Technical Report EAS/2016-06-01

Prepared by:

Ohio Environmental Protection Agency  
Division of Surface Water  
Lazarus Government Center  
50 W. Town Street, Suite 700  
Columbus, Ohio 43215

Ohio Environmental Protection Agency  
Division of Surface Water  
Groveport Field Office  
4675 Homer Ohio Lane  
Groveport, Ohio 43125

and

Ohio Environmental Protection Agency  
Southwest District Office  
401 East Fifth Street  
Dayton, Ohio 45402

Mail to:

P.O. Box 1049, Columbus, Ohio 43216-1049

John R. Kasich, Governor, State of Ohio  
Craig W. Butler, Director, Ohio Environmental Protection Agency

## **Executive Summary**

As a result of previous biological surveys, nine streams are listed in the Ohio Water Quality Standards with the Warmwater Habitat (WWH) aquatic life use designation; one stream (Rapid Run) is listed as a Limited Resource Water. The WWH use was confirmed based on the 2014 survey results for eleven streams with previously unverified aquatic life use designations. Additionally, the WWH use is recommended for the unnamed tributary to Tenmile Creek (RM 3.58). Streams for which the WWH use was confirmed or recommended possessed habitat, chemical and hydrologic characteristics capable of maintaining healthy fish and macroinvertebrate communities in the absence of significant human impact. Aquatic life use attainment status is presented in Table 1

Table 1 Aquatic life use attainment status for stations sampled in the Southwest Ohio River Tributaries study area based on data collected June-October, 2014. The Index of Biotic Integrity (IBI), Modified Index of well-being (MIwb), and Invertebrate Community Index (ICI) are scores based on the performance of the biotic community. The Qualitative Habitat Evaluation Index (QHEI) is a measure of the ability of the physical habitat of the stream to support a biotic community. If biological impairment has occurred, the cause(s) and source(s) of the impairment are noted. NA = not applicable.

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	MIwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
Fivemile Creek (10-001-000) WWH existing										
@ Five Mile Rd.	302685	2.37	3.40	32*		MG <sup>ns</sup>	57.50	PARTIAL	Flow alteration, Other (total toxics)	Urban runoff/ Storm sewers
Eightmile Creek (10-002-000) WWH existing										
@ U.S. Rt. 52	609010	0.18	3.90	50		VG	62.00	FULL		
Tenmile Creek (10-003-000) WWH existing										
Dst. Pond Run Rd.	302687	3.61	5.70	52		G	63.30	FULL		
@ U.S. Rt. 52	609050	1.17	12.60	46		VG	73.80	FULL		
Trib. to Tenmile Creek (3.58) (10-003-001) WWH recommended										
@ St. Rt 749	302686	0.01	3.50	50		VG	56.80	FULL		
Ninemile Creek (10-004-000) WWH existing										
@ Locust Corner Rd.	X01W01	0.79	8.10	54		VG	80.00	FULL		
Twelvemile Creek (10-006-000) WWH existing										
@ Laurel-Lindale Rd.	X01W13	6.44	6.8	32*		MG <sup>ns</sup>	71.00	PARTIAL	Intermittent /interstitial flow	General natural conditions
@ Fagins Run Rd Dst Fagins Run	302534	2.08	18.3	50		VG	77.80	FULL		

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	MIwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
Little Indian Creek (10-010-000) WWH existing										
Adj. Laurel Moscow Rd.	302692	0.85	4.90	48		G	73.50	FULL		
Boat Run (10-011-000) WWH existing										
@ U.S. Rt. 52	302688	0.20	3.60	48		MG <sup>ns</sup>	67.80	FULL		
Big Indian Creek (10-012-000) WWH existing										
@ Braun Rd, Upst. Beech Run	302691	8.70	5.40	32*		MG <sup>ns</sup>	65.50	PARTIAL	Intermittent /interstitial flow	General natural conditions
@ St. Rt. 222	302689	6.90	10.80	40		G	59.80	FULL		
@ St. Rt. 743	X01W04	4.89	27.4	38 <sup>ns</sup>	8.27 <sup>n</sup> <sub>s</sub>	MG <sup>ns</sup>	58.30	FULL		
@ St. Rt. 756	609080	1.71	37.70	44	8.49	G	60.80	FULL		
North Fork Indian Creek (10-016-000) WWH existing										
@ Laurel - Point Isabel Rd.	X01W06	0.93	10.90	42		VG	57.00	FULL		
Maple Creek (10-021-000) WWH existing										
@ Maple Creek Rd.	302693	1.62	7.70	52		MG <sup>ns</sup>	68.00	FULL		
Bear Creek (10-023-000) WWH existing										
@ Chilo Cemetery- Mckendree Chapel Rd.	X01W11	5.30	4.80	40		G	64.30	FULL		
Adj. Bear Creek Rd.	X01W12	2.43	7.70	52		G	63.00	FULL		
Crooked Run (10-024-000) WWH existing										
Crooked Run At Chilo @ Old Carntown Rd.	302694	0.70	0.90			<u>P</u> *		(NON)	Impounded (Ohio River backwater)	General natural conditions

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	MIwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
Bullskin Creek (10-027-000) WWH existing										
@ Dunbar Rd.	X01W07	4.38	27.7	40	7.24*	MG <sup>ns</sup>	62.00	PARTIAL	Intermittent/interstitial flow, Nutrient enrichment-biological indicators	Natural, Agriculture
@ Felicity Cedron Rural Rd.	X01W08	2.96	48.00	36 <sup>ns</sup>	8.73	VG	68.00	FULL		
East Branch Bullskin Creek (10-030-000) WWH existing										
@ Lang Rd.	302696	4.70	15.80	36 <sup>ns</sup>		VG	62.00	FULL		
@ Dunbar Rd.	302695	0.40	15.8	44		VG	61.50	FULL		
Middle Branch Bullskin Creek (10-031-000) WWH existing										
Upst. Bullskin Rd.	302697	0.05	5.4	40		G	49.00	FULL		
West Branch Bullskin Creek (10-032-000) WWH existing										
@ Mt. Zion Rd.	302698	4.65	5.70			MG <sup>ns</sup>		FULL		
@ Richey Rd.	X01W09	0.59	25.00	42	8.53	G	61.50	FULL		
Mill Creek( 23-001-000) WWH existing										
@ Liberty-Fairfield Rd.	Q01S19	26.35	3.90	48		F*	64.00	PARTIAL	Nutrient enrichment-biological indicators, Other (total toxics)	Urban runoff/ Storm sewers

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	Mlwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
@ St. Rt. 747	Q01W08	22.06	20.60	35*	8.10 <sup>n</sup> <sub>s</sub>	48	55.50	PARTIAL	Nutrient enrichment- biological indicators, Other (total toxics)	Urban runoff/ Storm sewers
@ Crescentville Rd.	Q01W05	18.69	27.00	31*	6.00*	40	69.80	PARTIAL	Nutrient enrichment- biological indicators, Other (total toxics)	Urban runoff/ Storm sewers
Upst. Confl E. Fk. Mill Creek	Q01W03	17.96	32.50	32*	6.43*	46	62.80	PARTIAL	Nutrient enrichment- biological indicators, Other (total toxics)	Urban runoff/ Storm sewers
@ Kemper Rd.	Q01S17	17.61	44.80	31*	6.87*	42	66.30	PARTIAL	Nutrient enrichment- biological indicators, Other (total toxics)	Municipal Point Source
@ Sharon Rd.	600400	16.57	50.50	31*	6.28*	46	70.50	PARTIAL	Nutrient enrichment- biological indicators, Other (total toxics)	SSO, Municipal Point Source

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	MIwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
Town Run (23-001-014) WWH existing										
@ Chester Rd.	Q01S02	0.67	2.1	34*		<u>P</u> *	61.80	NON	Organic enrichment-biological indicators	Municipal point Source
East Fork Mill Creek (23-006-000) WWH existing										
@ West Chester Rd.	Q01G01	3.17	5.00	46		MG <sup>ns</sup>	64.30	FULL		
@ Allen Rd.	600460	1.85	8.10	40		MG <sup>ns</sup>	51.30	FULL		
Upst. Butler Co. Upper Mill Creek WWTP	301418	1.15	9	38 <sup>ns</sup>		G	50.80	(FULL)		
@ Crescentville Rd.	Q01P01	0.76	9.20	28*		44		PARTIAL	Nutrient enrichment-biological indicators, Other (total toxics)	Municipal point Source
@ Mouth	Q01S24	0.01	9.70	31*		36	60.80	PARTIAL	Nutrient enrichment-biological indicators, Other (total toxics)	Municipal point Source
Muddy Creek (23-007-000) WWH existing										
@ Ebenezer Rd.	Q01K23	5.40	7.60	24*		<u>P</u> *	44.80	NON	Nutrients, Other (total toxics)	CSO, Unsewered areas
@ Hillside Rd.	609040	1.96	12.10	32*		MG <sup>ns</sup>	55.30	PARTIAL	Nutrients, Other (total toxics)	CSO, Unsewered areas

Stream/ Location	Station Code	River Mile <sup>a</sup>	Drainage (mi <sup>2</sup> )	IBI	MIwb <sup>b</sup>	ICI <sup>c</sup>	QHEI	Status	Cause	Sources
Rapid Run (23-008-000) LRW existing										
@ Bender Rd.	Q01K24	1.15	5.80	28		F	62.30	FULL		

- a- River Mile (RM) represents the Point of Record (POR) for the station, and may not be the actual sampling RM.
- b- MIwb is not applicable to headwater streams with drainage areas  $\leq 20$  mi<sup>2</sup>.
- c- A narrative evaluation of the qualitative sample based on attributes such as EPT taxa richness, number of sensitive taxa, and community composition was used when quantitative data was not available or considered unreliable. VP=Very Poor, P=Poor, LF=Low Fair, F=Fair, MG=Marginally Good, G=Good, VG=Very Good, E=Exceptional
- ns- Nonsignificant departure from biocriteria ( $\leq 4$  IBI or ICI units, or  $\leq 0.5$  MIwb units).
- \*- Indicates significant departure from applicable biocriteria ( $>4$  IBI or ICI units, or  $>0.5$  MIwb units). Underlined scores are in the Poor or Very Poor range.

Biological Criteria Eastern Corn Belt Plains				
Index – Site Type	EWB	WWH	MWH	
IBI – Headwaters	50	40	24	
IBI – Wading	50	40	24	
IBI – Boat	48	42	24	
MIwb – Wading	9.4	8.3	6.2	
MIwb – Boat	9.6	8.5	5.8	
ICI	46	36	22	

Biological Criteria Interior Plateau				
Index – Site Type	EWB	WWH	MWH	LRW
IBI – Headwaters	50	40	24	18
IBI – Wading	50	40	24	18
IBI – Boat	48	38	24	16
MIwb – Wading	9.4	8.1	6.2	4.5
MIwb – Boat	9.6	8.7	5.8	5.0
ICI	46	30	22	8

## Beneficial Use Designations and Recommendations

The streams in the Southwest Ohio River Tributaries study area currently listed in the Ohio Water Quality Standards (WQS) are assigned the Warmwater Habitat (WWH) aquatic life use designation with the exception of Rapid Run which is designated Limited Resource Water (LRW). Aquatic life use designations had been previously verified for nine streams (Table 3). Sampling of the remainder represented the initial assessment of these streams by Ohio EPA using approved protocols to assess aquatic life use designations and evaluate biological community condition. The study area involved fourteen HUC 12 watershed assessment units and included streams such as the upper reaches of Mill Creek (Butler County) and several direct tributaries of the Ohio River located in Hamilton, Clermont, and Brown counties.

Twelve streams in the study area were evaluated for unverified or undesignated aquatic life and recreation use status in 2014 (Table 2). Significant findings include the following:

- The WWH aquatic life use should be assigned to all previously unverified WWH streams including Fivemile Creek, Eightmile Creek, Boat Run, Little Indian Creek, North Fork Indian Creek, Maple Creek, Crooked Run, East Branch Bullskin Creek, West Branch Bullskin Creek, Middle Branch Bullskin Creek, and Muddy Creek.
- Biological and habitat assessments confirmed the WWH use designation is appropriate for the unnamed tributary to Tenmile Creek (RM 3.58).
- All sampled streams, with the exception of Rapid Run, should retain the Primary Contact Recreation use. Rapid Run should retain the Secondary Contact Recreation use. The Agricultural Water Supply and Industrial Water Supply uses apply to all the study area streams.
- Crooked Run is a small stream that is currently listed as a State Resource Water within the Crooked Run Nature Preserve. It is recommended that the State Resource Water use designation be replaced with a General High Quality Water antidegradation classification in keeping with OAC Chapter 3745-1-05 (B)(25).

Qualitative Habitat Evaluation Index (QHEI) scores and macrohabitat features of river and streams contained within the Southwest Ohio River Tributaries study area are presented in Table 3

Table 2. Waterbody use designation recommendations for the Southwest Ohio River Tributaries study area. Designations based on the 1978 and 1985 Ohio Water Quality Standards appear as asterisks (\*). A plus sign (+) indicates a confirmation of an existing use and a triangle (▲) denotes a new recommended use based on the findings of this report.

Water Body Segment	Use Designations												Comments
	Aquatic Life Habitat						Water Supply			Recreation			
	S R W	W W H	E W H	M W H	S S H	C W H	L R W	P W S	A W S	I W S	B W	P C R	
Fivemile creek		*/+						*/+	*/+		*/+		
Eightmile creek		*/+						*/+	*/+		*/+		
Ninemile creek		+						+	+		+		
Tenmile creek		+						+	+		+		
Unnamed tributary at Tennile Creek RM 3.58		▲						▲	▲		▲		
Pond run		*						*	*		*		
Twelvemile creek		+						+	+		+		
Fagin run		*						*	*		*		
Ferguson run		*						*	*		*		
Briggs run		*						*	*		*		
Little Indian creek		*/+						*/+	*/+		*/+		
Boat run		*/+						*/+	*/+		*/+		
Indian creek		+						+	+		+		
Dry run		*						*	*		*		
Colclaser run		*						*	*		*		
Sugar creek		*						*	*		*		
North fork		*/+						*/+	*/+		*/+		
Stony fork		*						*	*		*		
Bee run		*						*	*		*		
Little Indian creek		*						*	*		*		
Ray run		*						*	*		*		
Maple creek		*/+						*/+	*/+		*/+		

Water Body Segment	Use Designations												Comments
	Aquatic Life Habitat							Water Supply			Recreation		
	SRW	WWH	EWH	MWH	SSH	CWH	LRW	PWS	AWS	IWS	BW	PCR	
Vinegar run		*							*	*		*	
Bear creek		+							+	+		+	
Crooked run - within Crooked run preserve	o	*/+							*/+	*/+		*/+	
- all other segments		*/+							*/+	*/+		*/+	
Patterson run		*							*	*		*	
Ryan run		*							*	*		*	
Bullskin creek - Clermont-Brown county line to the Ohio river		+							+	+		+	
- all other segments		+							+			+	
Big run		*							*	*		*	
Slickaway run		*							*	*		*	
East branch		*/+							*/+	*/+		*/+	
Middle branch		*/+							*/+	*/+		*/+	
West branch		*/+							*/+	*/+		*/+	
Painter fork		*							*	*		*	
Muddy Creek		*/+							*/+	*/+		*/+	
Rapid run (Ohio river RM 500.74)							+		+	+			+
Mill creek - headwaters to I-275 (RM 17.9)		+							+	+		+	
- I-275 to Center Hill rd. (RM 7.9)		+							+	+		+	
Town run (Mill creek RM 16.93)		+							+	+		+	
East fork (Mill creek RM 17.95) - headwaters to Butler county		+							+	+		+	
upper Mill creek WWTP (RM 1.07)													
- upper Mill creek WWTP to the mouth		+							+	+		+	

SRW = state resource water; WWH = warmwater habitat; EWH = exceptional warmwater habitat; MWH = modified warmwater habitat; SSH = seasonal salmonid habitat; CWH = coldwater habitat; LRW = limited resource water; PWS = public water supply; AWS = agricultural water supply; IWS = industrial water supply; BW = bathing water; PCR = primary contact recreation; SCR = secondary contact recreation.



River Mile	Gradient QHEI (ft/mi)	WWH Attributes								MWH Attributes																																
		Not Channelized or Recovered Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Development	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low/Normal Embeddedness	Max Depth > 40cm	Low/Normal Riffle Embeddedness	WWH Attributes	High Influence					Moderate Influence																									
Key QHEI Components		Channelized/No Recovery	Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth < 40cm	Hi-influence Modified Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Hardpan Substrate Origin	Fair/Poor Development	Low Sinuosity	Only 1 or 2 Cover Types	Intermittent/Poor Pools	No Fast Current	High/Moderate Embeddedness	High/Mod. Riffle Embeddedness	No Riffle	M.I. Modified Attributes	MWH H.I. + 1/MWH+1 Ratio	MWH M.I. + 1/MWH+1 Ratio																				
<b>10-012-000 BIG INDIAN CREEK</b>																																										
<b>Year 2014</b>																																										
8.7	65.5	20.83	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	4	0.17	0.83
6.9	59.8	43.47	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	6	0.14	1.00	
4.9	58.3	46.51	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	4	0.11	0.56	
1.7	60.8	10.47	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	4	0.33	0.83	
<b>10-016-000 NORTH FORK INDIAN CREEK</b>																																										
<b>Year 2014</b>																																										
0.9	57.0	57.14	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	5	0.13	0.75	
<b>10-021-000 MAPLE CREEK</b>																																										
<b>Year 2014</b>																																										
1.7	68.0	40.00	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	3	0.13	0.50	
<b>10-023-000 BEAR CREEK</b>																																										
<b>Year 2014</b>																																										
5.3	64.3	43.50	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	3	0.13	0.50	
2.4	63.0	37.03	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	5	0.14	0.86	
<b>10-023-001 Trib To Bear Creek (6.85)</b>																																										
<b>Year 2014</b>																																										
0.6	59.0	105.30	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	4	0.25	0.63	
<b>10-027-000 BULLSKIN CREEK</b>																																										
<b>Year 2014</b>																																										
4.4	62.0	47.61	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	2	0.25	0.38	
3.0	68.0	28.57	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	3	0.14	0.57	
<b>10-030-000 EAST BRANCH BULLSKIN CREEK</b>																																										
<b>Year 2014</b>																																										
4.7	62.0	19.00	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	8	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	6	0.11	0.78	
0.4	61.5	74.07	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	4	0.13	0.63
<b>10-031-000 MIDDLE BRANCH BULLSKIN CREEK</b>																																										
<b>Year 2014</b>																																										
0.1	49.0	80.00	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	6	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	6	0.29	1.00	

River Mile	Gradient QHEI (ft/mi)	WWH Attributes								MWH Attributes																								
		Not Channelized or Recovered Boulder/Cobble/Gravel Substrates	Silt Free Substrates	Good/Excellent Development	Moderate/High Sinuosity	Extensive/Moderate Cover	Fast Current/Eddies	Low/Normal Embeddedness	Max Depth > 40cm	Low/Normal Riffle Embeddedness	WWH Attributes	High Influence					Moderate Influence																	
											Channelized/No Recovery	Silt/Muck Substrates	No Sinuosity	Sparse/No Cover	Max Depth < 40cm	HI-influence Modified Attributes	Recovering Channel	Heavy/Moderate Silt Cover	Sand Substrates (Boat)	Hardpan Substrate Origin	Fair/Poor Development	Low Sinuosity	Only 1 or 2 Cover Types	Intermittent/Poor Pools	No Fast Current	High/Moderate Embeddedness	High/Mod. Riffle Embeddedness	No Riffle	M.I. Modified Attributes	MWH H.I. + 1/WWH + 1 Ratio	MWH M.I. + 1/WWH + 1 Ratio			
<b>10-032-000 WEST BRANCH BULLSKIN CREEK</b>																																		
<b>Year 2014</b>																																		
0.6	61.5	34.48	■	■	■	■	■	■	■	8	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	4	0.11	0.56
<b>23-001-000 MILL CREEK</b>																																		
<b>Year 2014</b>																																		
26.4	64.0	31.25	■	■	■	■	■	■	■	8	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	5	0.11	0.67	
22.0	55.5	3.61	■	■	■	■	■	■	■	3	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	7	0.50	2.00	
18.7	69.8	6.67	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	■	4	0.13	0.63	
18.1	62.8	6.67	■	■	■	■	■	■	■	7	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	■	■	6	0.25	0.88		
17.6	66.3	6.67	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	4	0.13	0.63		
16.6	70.5	5.10	■	■	■	■	■	■	■	6	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	4	0.14	0.71			
<b>23-001-014 TOWN RUN (16.91) DST. GLENDALE AVE. AT GLENDALE</b>																																		
<b>Year 2014</b>																																		
0.7	61.8	10.53	■	■	■	■	■	■	■	7	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	6	0.13	0.88		
<b>23-006-000 EAST FORK MILL CREEK</b>																																		
<b>Year 2014</b>																																		
3.1	64.3	38.46	■	■	■	■	■	■	■	6	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	7	0.14	1.14		
1.9	51.3	7.87	■	■	■	■	■	■	■	4	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	■	■	7	0.40	1.60		
1.2	50.8	7.87	■	■	■	■	■	■	■	2	■	■	■	■	■	2	■	■	■	■	■	■	■	■	■	■	■	■	■	7	1.00	2.67		
0.8	63.0	8.40	■	■	■	■	■	■	■	4	■	■	■	■	■	0	■	■	■	■	■	■	■	■	■	■	■	■	■	5	0.20	1.20		
0.1	60.8	8.40	■	■	■	■	■	■	■	7	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	■	■	7	0.25	1.00		
<b>23-007-000 MUDDY CREEK</b>																																		
<b>Year 2014</b>																																		
5.5	44.8	50.00	■	■	■	■	■	■	■	1	■	■	■	■	■	2	■	■	■	■	■	■	■	■	■	■	■	■	■	6	1.50	3.50		
2.0	55.3	25.00	■	■	■	■	■	■	■	2	■	■	■	■	■	2	■	■	■	■	■	■	■	■	■	■	■	■	■	5	1.00	2.00		
<b>23-008-000 RAPID RUN</b>																																		
<b>Year 2014</b>																																		
0.7	62.3	76.92	■	■	■	■	■	■	■	9	■	■	■	■	■	1	■	■	■	■	■	■	■	■	■	■	■	■	3	0.20	0.40			