Municipality/Organization: Town of Weston

EPA NPDES Permit Number: MAR041068

MaDEP Transmittal Number: W-035252

Annual Report Number
& Reporting Period: No. 12: March 2014-March 2015

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Stephen R. Fogg, P.E.

Title: Town Engineer

Telephone #: 781-786-5115

Email: fogg.s@westonmass.org

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	Ono S. Varde Cle
Printed Name:	Donna VanderClock
Title:	Town Manager
Date:	April 29, 2015

Municipality/Organization: Town of Weston

EPA NPDES Permit Number: MAR041068

MaDEP Transmittal Number: W-035252

Annual Report Number

& Reporting Period: No. 12: March 2014-March 2015

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Stephen R. Fogg, P.E. Title: Town Engineer

Telephone #: 781-786-5115 Email: fogg.s@westonmass.org

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:	
Drinted Nones	Danna VandarClash
Printed Name:	Donna VanderClock
Title:	Town Manager
Date:	April 29, 2015

Part II. Self-Assessment

The Town of Weston has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

BMP 1-7, Progress has been made, but Outreach to Private Ways, has only been partially completed. The Town Engineer has been in communications with the Weston Roads Trust, which owns and manages several miles of private ways and their associated drainage systems.

BMP 2, Public Involvement and participation has increased from previous years, but additional public awareness and involvement would be preferred. Despite this, the passing of the Town of Weston Stormwater & Erosion Control By-law and Stormwater & Erosion Control Regulations has raised awareness levels in the building community, and for residents doing major home additions or other improvements that involve the creation of new impervious area.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12 (2014-2015) (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 13 (2015-2016)
1-1	Flyer to residents	WCC(Weston Conservation Commission), BOH, and SWPA(Stormwater Permitting Authority)	Distribute to 75% of residents	Placed Flyers, postcards, &information on display at Town Hall and DPW And Town Web Pages	Additional flyers on Stormwater, Conservation & Wetlands, and Health Dept. Information
Revised	Septic Info flyer to residents	ВОН	On Town website	Completed	Continue distribution of new flyers to all residents
1-2	Lesson Plan for Fifth Graders	WCC and SRF	Lesson plan taught	Lesson plan continuing in schools.	Lesson Plan to continue for 4 th and
Revised	Plan to be taught in 4 th grade			Completed lesson and activity for 4 th and 5 th graders (360 students) on "Exploring Stormwater".	5 th graders.
1-3 Revised	Media Campaign	WCC and SRF	Media packet given to press	Written Articles in newspaper about workshops held.	Stormwater education article in local media spots.
1.4	Til.	ane o nea	D' - 'I	-	-
1-4	Flyer to Businesses	SRF & RES	Distribute to 50% of businesses	Mailed 165 letters/flyers March 2013	Additional updates, memos, flyers to be sent.
Revised			Distribute to 100 % of businesses	No additional letters.	
1-5	Video	WCC and SRF	Show video at public meeting	Power point presentation at Spring Workshop	Continue workshop annually
Revised	"Stormwater Matters Outreach and Participation Campaign"	SUASCO	Implement stormwater advertising campaign	Ad campaign displayed at informational meetings in spring 2011	Provide information to public including post cards, pamphlets, etc. available at Town buildings.
1-6	High School Students involvement in stormwater outreach	SRF	Submit reports to school and to Town Engineer	Intern Students prepared ideas and plans for stormwater outreach	Continue with student involvement in stormwater outreach with new students

1a. Additions

1-7	Outreach to Private Ways	DPW	Develop and send correspondence to road trusts and private way owners about stormwater issues	Continued updates of road conditions to Roads Trust.	Follow up as necessary
Revised		DPW	Private roads monitored as part of and during construction of Stormwater Management Permits projects.	Continued 2-Way Communication with Roads Trusts.	Continue to monitor roads and alert road trusts of conditions.
1-8	Illicit Discharge Detection and Elimination By- Law	DPW, Stormwater Working Group	Hold public meeting to describe proposed bylaw and regulations	Completed in previous year	Revisit residential discharges to Town drainage systems.
1-9	Public Presentations	Conservation Agent	Make presentation to community groups about stormwater	Two-Part Presentation to Env. Science students at school.	Continue as opportunities arise; possible library presentation
Revised	Public workshop	BOH, WCC, SWPA, Bldg. Dept., Fire Dept.	Information workshop & presentation to Town residents	Home improvement workshop presented to public. Approx. 50 residents attended. Will air on local access cable	Continue annually
1-10	Proposed by-law	Stormwater Working Group	Hold informational meetings and hearings on proposed stormwater and erosion control by-law	By-law adopted at 2011 Annual Town Meeting, May, 2011	Continued outreach and education around new by-law
Revised	Amend/Update By-law		Revise some language in By- law	Amended By-Law, Approved at Town Meeting, May 2014	Update to Stormwater Regulations
1-11	Stormwater talk to High School	SRF & WCC	High School biology class learned about stormwater pollution.	Class visited DPW for tour, and presentation on Stormwater to Environmental class, September & October, 2014	Class to visit at least annually.
1-12	Science Fair with science demonstrations	SWPA, WCC	Students to learn about stormwater runoff and pollution	Science Fair held at Elementary School	Continue Science fair annually

1-13	Information	ВОН	Educate public on	Information booths set	Continue annually
	provided to		maintenance of	up at Spring Fling and at	
	Town residents		wastewater	Antique Car show	
			systems	events	

2. Public Involvement and Participation

BMP	BMP	Responsible	Measurable	Progress on Goal(s) -	Planned Activities –
ID#	Description	Dept./Person	Goal(s)	Permit Year 12	Permit Year 13
		Name		(2014-2015) (Reliance on non-	(2015-2016)
				municipal partners	
				indicated, if any)	
2-1	Traveling	WCC and	Continuously on	Stormwater Display	Use display as
	Display	SWPA	display at Town	setup at DPW with	opportunity arises.
			buildings & events	flyers, pamphlets, and	Display at Town
Revised			Continuous display	postcards.	Hall and/or other
			at DPW, except		common area in
			when traveling		Town.
2-2	Poster contest	SUASCO	Hold contest	Contest held in	None
	(5 th grade)	WCC and		previous years.	
n · 1		SRF			
Revised					
2-3	Summit Event	SUASCO	Hold local	None	None
		WCC and	stormwater summit		
		SRF	meeting		
Revised					
2-4	Photo contest	SUASCO	Hold contest	None	None – being
	(High School)	WCC and			considered for next
		SRF			permit cycle
Revised					
2-5	Super—summit	SUASCO	Participate in		
	event	WCC and	regional "super-		
		SRF	summit"		
Revised	"Stormwater	SUASCO	Implement	Ad campaign	Continue to use
	Matters		stormwater	displayed at	displays at all
	Outreach and		advertising	informational	relevant Town
	Participation		campaign	meetings in spring,	events.
	Campaign"			2014-2015.	

2a. Additions

2-6	Stream team survey of Seaverns Brook	SRF and stream team	Complete survey	None	Provide GIS mapping and complete survey
Revised	Stream team survey of Hobbs Brook	Weston Girl Scouts	Complete survey	Survey completed, April 2008	

2-7	Catch basin	SRF	Volunteer	completed in a previous	Continue program to
	stenciling		group(s) to	year	other areas of Town
	program		install 180		
			storm drain		
			markers in		
			selected		
			locations		
2-8	Hazardous Waste	DPW	Provide safe	Event held at DPW;	Continue annually
	Day		location for	200 Cars participated	
			residents to		
			dispose of		
			hazardous waste		

3. Illicit Discharge Detection and Elimination

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12 (2014-2015) (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 13 (2015-2016)
3-1	Stormwater System Mapping	DPW	Complete mapping of stormwater system over a 3 year period	Additions to Town GIS system as time allows	Completion of stormwater system mapping using GPS to construct pipe network; link As-built plans to system.
3-2	Dry weather screening of outfalls	DPW	Visual inspection/report of known outfalls, 33% each year	Done in previous year	Continue to inspect outfalls and document changes from last inspection
Revised		DPW	Create database and tracking system for outfall inspections.	Completed	
3-3	Illicit Discharge Elimination	DPW, Board of Health	Trace non- stormwater flows and eliminate within 1 year	None	Sample flowing outfalls using IDDE protocol
3-4	Water Quality Monitoring	Cambridge Water Supply	Obtain and review results of regular monitoring	Water quality data summary from CWS - See Attachment A	Same as prior years; DPW to work closely with CWS(Cambridege Water Supply) on discharges that affect CWS waters
3-5	Amend Stormwater regulations	DPW	Amended regulations adopted at 2003 Annual town Meeting	Goal met	
Revised			Amended regulations adopted at 2010 Annual Town Meeting	Goal met	
Revise- 2	Amend/update Stormwater regulations	SWPA	Meetings/discussions to update stormwater regulations	Discussions ongoing	Updates planned for the Stormwater and Erosion Control Regulations
3-6	Septic System Monitoring Program	Board of Health	Develop, implement and enforce septic pumping System in place to identify frequent pumping	BOH not planning to institute mandatory pumping Database created and in use; frequent pumping locations are investigated	

3-7	Dechlorination	DPW - Water	Use dechlorination	New water mains	As needed
	of New Water	Div.	tablets when	installed in two	
	Mains		flushing new mains	streets, and were	
				dechlorinated before	
				flushing.	
3-8	Trench	DPW	Require siltation	Siltation control	As needed
	Dewatering		control on all trench	specified on all	
	Policy		dewatering projects	capital projects;	
				controls used on	
				DPW projects	

4. Construction Site Stormwater Runoff Control

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12 (2014-2015) (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 13 (2015-2016)
4-1	Erosion and Sediment Control Bylaw	Stormwater Working Group	Develop, implement and enforce bylaw	By-law adopted at Town Meeting, May 2011 Stormwater Management Permits reviewed and approved; construction projects monitored & inspected.	Continue full implementation of by-law and regulations
Revised	Implementation of by-law and regulations	Stormwater Permitting Authority(SWPA)	Update and clarify some By-law language	; Amended By-Law, Approved at Town Meeting, May 2014	Update Stormwater and Erosion Control Regulations
4-2	Planning Board review of projects	Planning Board	All projects reviewed for compliance with runoff control measures	All applicants are required to demonstrate that they are addressing stormwater runoff control during construction	Same as prior years
4-3	Conservation Commission review of projects	Conservation Commission	All projects reviewed for compliance with runoff control measures	All applicants are required to demonstrate that they are addressing stormwater runoff control during construction	Same as prior years
4-4	Street Opening permit process	DPW	Inspections conducted for compliance with Stormwater Regulations	DPW inspector assigned to this task	Inspections documented and reported in annual report – continue this program.

4-5	Building Permit	See 4-1	See 4-1	Stormwater Permit	
	process			must be approved	
				before Building	
				permit is issued.	

4a. Additions

4-6	Stormwater	SWPA	Review all	Reviewed 70	Review as needed
	Management		applications;	Stormwater	
	Permit review of		conduct site	Management Permit	
	projects		inspections	Applications	
4-7	Inspection of	SWPA	Erosion controls	Erosion control to be	Continue to inspect
	erosion control		inspected prior to	installed adequately	erosion control
	for Demo permits		demo of	before Demo Permit	
			buildings	issued	

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID#	BMP Description	1 -		Progress on Goal(s) – Permit Year 12 (2014- 2015) (Reliance on non- municipal partners	Planned Activities – Permit Year 13 (2015-2016)
5-1	Stormwater & Erosion Control By-law	DPW, SWPA	Same as control measure 4-1	indicated, if any) Bylaw and regulations in place.	Monitor the progress of the new By-law.
Revised	Implementation of by-law and regulations	Stormwater Permitting Authority(SWPA)	All projects meeting established thresholds of land disturbance required to obtain Stormwater Permit	Regulations and permit procedures in place November 2011; Site plan check list added to Application.	Same as prior years
5-2	DPW Runoff Control Policy	See 5-1		No new additional stormwater runoff to streets allowed.	Continue to monitor projects.

5-3	Compliance with	Conservation	Ensure	Any project approved	Con Com will not
	stormwater	Commission	compliance	under the Con Com's	issue a Cert. of
	O&M plans		with post-	jurisdiction which	Compliance until
	under Con Com		construction	increases impervious	the Applicant has
	review		stormwater	surfaces by 2,000 s.f. or	completed a post-
			O&M Plans	more must demonstrate	construction
				that there will be no	stormwater
				increase in the rate or	structure(s)
				volume (offsite) of the	inspection and
				100 year	submitted a
				storm. Applicants are	completed
				required to submit a	maintenance
				stormwater O&M plan	checklist
				and annual inspection	
				checklist for the first year	
				after construction	

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID#	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (2014-2015) (Reliance on non- municipal partners indicated, if any)	Planned Activities – Permit Year 13 (2015- 2016)			
6-1	Street Sweeping	DPW	Sweep all public streets annually	All public streets swept at least once per year	Same as prior years			
6-2	Catch Basin Cleaning	DPW	Clean all public catch basins annually	All public catch basins cleaned at least annually	Same as prior years			
6-3	Drainage Improvement Projects	DPW	Incorporate structural BMPs into each project	Completed Sibley Road, new drainage w/treatment unit. Design & permitting of drainage with stormwater treatment for 3 roadway projects.	Construction of North Ave.; Summer St.; and, Highland & Winter Streets drainage projects South side drainage project design (flood mitigation) 5 year capital plan to continue			
6-4	DPW Housekeeping	DPW	Conduct environmental audit, implement recc.	Completed	none			
Revised	Environmental Management System	DPW	Develop and Implement Environmental Management System	Implementation of Stormwater Best Management Practices at new DPW facility opened February 2011	Update maintenance program. Continuing program			

6-5	Roadway De- icing Program	DPW	Install computerized spreader controls in previous year. Monitored salt usage	Continued to track usage to achieve optimal application rates. Application rate 734 lbs./lane mile	Continue to seek optimal levels to achieve balance between public safety and environmental impact
6-6	Waterway Maintenance	DPW	Clear waterways of debris, 3 year rotating basis	Notice of Intent filed with Conservation Commission for permit to do maintenance	Continuing project
Revised	Ditch maintenance	East Middlesex Mosquito Control Project	Clear sediment from ditches	ditch clearing accomplished in one area	Identify and clean as time and budget allows

6a. Additions

6-7	Employee Training Program	DPW	Provide all departments with training	Done for DPW staff as part of EMS program	
Revised	Stormwater training	SRF & RES	Outside stormwater training	Completed	Continue training as available.
6-8	New DPW Facility	DPW	Incorporate Green Building Design into project	Construction completed and building opened Feb. 2011	Implementation of Stormwater Best Management Practices at new DPW facility opened February 2011; Continue Maintenance Program of BMPs.
Revised	DPW maintenance of drainage systems.	DPW	Maintenance of facility drainage	Cleaned all drainage structures	Continued annual maintenance; repairs as needed.
6-9	Erosion repairs	DPW	Repair eroded slope at water tower-Cat Rock Hill	Competed-new soil added with slope reinforcement and grass planted	Monitor Town land for erosion issues and repair.
6-10	Septic System file organization and maintenance	Board of Health	Develop efficient monitoring system of Town septic systems	Digitize all septic as-built plans and Title 5 Inspection Reports	

Part IV. Summary of Information Collected and Analyzed

<u>Attachment A</u> - A summary of water quality monitoring results from Cambridge Water Supply (CWS) is included as <u>Attachment A</u>. Weston has received no notification of specific water quality concerns from staff in the Watershed Protection Division of CWS. This agency has staff dedicated to monitoring water quality within the watershed on a daily basis.

Other

A tracking system was put in place in 2004 for private development stormwater BMPs that are reviewed and approved by the Town Engineer. This system was updated to incorporate the new Stormwater Permit provisions under the Stormwater and Erosion Control By-Law and Regulations. To date, approximately 460 projects have been reviewed.

The Stormwater Engineer reviews Stormwater Management Permit Applications for compliance with the Town of Weston Stormwater & Erosion Control By-Law and Regulations. 60 Stormwater Permit Applications were submitted and reviewed in 2014.

ATTACHMENT A

CAMBRIDGE WATER SUPPLY – WATER QUALITY MONITORING SUMMARY

2014 Surface Water Quality Data, Cambridge Watershed, Weston

Baseflow (no	o secondary	tributary or sto	rmwater samples i	n Weston, 2014)
--------------	-------------	------------------	-------------------	-----------------

						DO											
				Water	SpC	(%Saturation				Salinity		Air temp.			Discharge (ins	t.	NH3
SiteID	USGS ID	Date	Time	temp. (°C)	(μS/cm))	DO (mg/L)	рΗ	Orp mV	PSS	TDS (mg/L)	(°F)	BP (mmHg)	Staff Height	cfs)	Comments	(mg/L)
SB@VILES	01104370	2/11/2014	10:45:52	0.18	381	91.5	13.43	7.27	88	0.17	243.70	21	768	0.86	9.4	Ice on gage, kicked off	0.071
SB@VILES	01104370	3/25/2014	11:13:20	1.37	326	93.7	13.25	7.34	90	0.15	208.80	31	765	1.35	30.0		0.080
SB@VILES	01104370	5/22/2014	10:48:12	16.00	390	91.2	8.99	7.23	84	0.18	249.80	61	760	1.22	22.0		0.130
SB@VILES	01104370	8/7/2014	10:31:26	18.08	414	91.0	8.57	7.00	143	0.20	264.80	70	758	0.62	3.7		0.091
SB@VILES	01104370	12/2/2014	11:15:50	3.81	319	91.1	12.27	7.24	111	0.14	204	33	778	1.14	20.0		< 0.020
RT 20	01104460	1/30/2014	10:52:32	0.96	609	88.8	12.82	7.29	49	0.28	389.8	22.10	772	5.04	12.00	Staff height taken from	0.180
RT 20	01104460	1/30/2014	10:52:32													FDUP	0.140
RT 20	01104460	3/11/2014	10:36:52	2.56	617	88.1	11.80	7.37	23	0.29	395.0	46.94	749	5.20	21.00		< 0.05
RT 20	01104460	5/13/2014	10:42:41	16.60	525	88.8	8.74	7.11	61	0.25	336.2	53.60	769	5.52	32.00		0.230
RT 20	01104460	6/10/2014	12:17:07	18.59	690	86.9	8.12	6.92	85	0.33	441.7	72.50	761	5.66	46.00	Dam releases from Hol	0.150
RT 20	01104460	7/3/2014	10:38:08	22.11		86.8	7.46	6.97	87	2.36	2833.0	80.24	759	5.34	27.00	SpC sensor not working	0.100
RT 20	01104460	9/25/2014	10:35:24	16.81	856	93.1	9.02	7.15	89	0.42	547.9	62.27	761	5.38	21.00		0.052
RT 20	01104460	12/16/2014	10:33:45	3.01	421	87.9	11.89	7.05	100	0.19	269.1	37.40	765	5.81	56.00		0.085
SUMMER ST	01104475	1/30/2014	11:14:09	2.01	353	99.3	13.93	7.58	113	0.16	226.1	24.1	772	0.47	0.67	Ice formation at section	0.10
SUMMER ST	01104475	3/11/2014	11:00:25	4.54	397	90.9	11.57	7.49	109	0.18	253.8	48.4	749	0.54	1.00		< 0.05
SUMMER ST	01104475	5/13/2014	11:02:22	14.65	379	99.4	10.21	7.44	123	0.18	242.6	53.6	769	0.54	0.97		< 0.05
SUMMER ST	01104475	7/3/2014	11:02:04	16.50		93.3	8.95	7.21	158	2.66	3165.0	79.2	759	0.28	0.15	Field SpC sensor not we	0.06
SUMMER ST	01104475	7/3/2014	11:02:04													FDUP	< 0.05
SUMMER ST	01104475	9/25/2014	10:53:09	12.29	334	97.1	10.39	7.49	149	0.16	213.9	54.1	761	0.3	0.22		< 0.05
SUMMER ST	01104475	12/16/2014	10:53:34	5.81	322	94.4	11.87	7.26	135	0.15	206.1	37.8	765	0.79	2.90		< 0.05
MBS	01104453	2/11/2014	11:11:04	3.52	826	46.60	6.23	6.92	105	0.40	528.70	21.6	768	96.36	2.00	NO3/NO2 analyzed by	0.088
MBS	01104453	3/25/2014	11:37:59	5.99	715	89.30	11.17	6.79	133	0.34	457.60	32.5	765	96.48	4.40		0.082
MBS	01104453	5/22/2014	11:11:46	18.98	679	57.00	5.28	6.77	109	0.33	434.50	62.4	760	96.46	4.60	Lots of beaver activity	0.190
MBS	01104453	8/7/2014	10:55:45	22.28	632	0.80	0.07	6.12	-27	0.30	404.60	70.0	758	96.40	2.80	Lots of beaver activity	0.130
MBS	01104453	12/2/2014	11:42:00	4.60	612	63.50	8.37	6.99	157	0.29	391.4	33.3	778	96.42	3.70		0.062
HB@KG	01104440	3/4/2014	9:57:44	0.05	1094	94.4	13.92	7.76	64	0.5	700.3	18.7	770	et staff height, cove	ered in muck ar	nd ice. Approx 0.25" thick	0.061
HB@KG	01104440	5/6/2014	10:53:04	11.83	843.2	95.9	10.33	7.43	95	0.4	539.6	59.5	758	1.86	18.00	estimated from 2012 Ra	0.094
HB@KG	01104440	6/24/2014	10:51:11	18.53	857.3	93.2	8.77	7.20	124	0.4	548.7	74.8	765	1.78	16.97	sured. NO3/NO2 analyz	0.120
HB@KG	01104440	7/31/2014	10:39:15	22.33	849.1	96.3	8.38	7.15	159		543.4	75.6	765	1.89	19.64	Discharge measured.	< 0.05
HB@KG	01104440	7/31/2014	10:39:15	22.33	849.1	96.3	8.38	7.15	159		543.4	75.6	765	1.89	19.64	FDUP	0.053
HB@KG	01104440	10/28/2014	10:17:07	11.04	825.6	94.3	10.41	7.31	108	0.4	528.4	61.3	763	1.51	9.00	ge estimated from ratir	0.140
INDUST BROOK	01104433	3/4/2014	9:37:43	0.09	3286	52.90	7.73	7.29	13	1.68	2103.0	16.34	770	0.80	0.23	Discharge estimated from	0.41
INDUST BROOK	01104433	3/4/2014	9:37:43													FDUP	0.41
INDUST BROOK	01104433	5/6/2014	10:33:41	13.84	2551	123.10	12.59	7.00	27	1.32	1632.0	58.82	758	0.82	0.27	Discharge estimated fro	0.20
INDUST BROOK	01104433	6/24/2014	10:28:04	18.43	2548	60.00	5.62	6.83	15	1.32	1631.0	74.84	765	0.58	0.01	Discharge estimated fro	0.88
INDUST BROOK	01104433	7/31/2014	10:18:14	19.52	1662	71.60	6.57	6.83	98		1063.0	74.12	765	0.76			0.22
INDUST BROOK	01104433	10/28/2014	9:56:24	10.07	1811	80.30	9.03	6.81	74	0.92	1159.0	61.34	763	0.76	0.17	Discharge estimated fro	0.23

														Alkalinity		Total		Lab	
	Total Phos.					Conductivity	E-Coli	Mn					тос	(mg/L	Total Al	Coliform	Total Fe	Turbidity	UV254
TKN (mg/L)	(mg/L)	lab number	Ca (mg/L)	Cl (mg/L)	Color (CU)	(umhos/cm)	(MPN)	(mg/L)	NO3 (mg/L)	NO2 (mg/L)	Lab pH	Na (mg/L)	(mg/L)	CaCO3)	(mg/L)	(MPN)	(mg/L)	(NTU)	(abs)
<0.5	0.015	2014-0609	22	80.5	26	360	12	0.056	1.300	<0.01	6.9	40.4	4	27.5	0.05	36	0.285	0.883	0.172
<0.5	0.021	2014-1277	16.8	74.3	37	336	58	0.041	1.09	< 0.004	6.99	38.5	5.5	21.5	0.089	160	0.501	1.14	0.235
0.76	0.044	2014-2153	24.7	94.6	72	379	220	0.107	1.33	0.004	7.08	52.7	7.7	28.5	0.161	>2419.6	0.96	2.56	0.408
<0.5	0.018	2014-3361	23	96.9	32	396	70	0.041	1.38	0.019	7.12	46.2	5.5	26	0.011	>2419.6	0.255	0.766	0.242
0.62	0.018	2014-5059	19.8	75.6	54	300	91	0.02	0.51	< 0.004	6.86	38.4	8.2	21	0.05	>2419.6	0.127	1.01	0.369
0.60	< 0.01	2014-0437	26.6	150	28	572	7.5	0.201	1.98	0.006	6.99	75.7	3.18	36	0.022	180	0.363	0.933	0.178
0.54	< 0.01	2014-0436	26	142	27	573	7.3	0.196	1.8	0.005	6.99	76.2	3.17	33	0.021	150	0.357	0.944	0.174
<0.5	0.011	2014-1055	27.6	160	27	580	36	0.172	1.5	0.004	7.12	81.2	3.85	29	0.016	90	0.355	0.96	0.169
0.57	0.029	2014-2011	27.6	135	53	543	79	0.221	0.15	< 0.004	7.22	75.2	5.9	31	0.122	2400	0.796	2.42	0.305
1.10	0.110	2014-2432	30.8	186	53	709	1400	0.736	0.430	0.01	7.05	112	4.7	29	0.71	>2419.6	2.69	11.5	0.221
<0.5	0.038	2014-2829	27.8	225	23	802	200	0.329	0.240	<0.01	7.16	130	3.6	28	0.142	>2419.6	0.889	1.46	0.141
<0.50	0.015	2014-4081	26.9	246	11	873	77	0.12	0.130	< 0.004	7.3	132	2.8	31	0.107	>2419.6	0.243	0.915	0.097
0.54	0.021	2014-5273		101	41	414	31	0.094	0.960	0.00	7.01	58.9	6.2	22.5	0.097	2400	0.401	1.02	0.273
0.530	< 0.01	2014-0438	21.6	67	9	344	17	0.009	2.750	0.01	7.5	36.8	2.37	33	0.009	93	0.139	0.271	0.076
<0.5	0.012	2014-1056	23.9	81.7	11	386	290	0.019	2.350	< 0.004	7.36	43	2.64	32	0.02	290	0.189	0.621	0.079
<0.5	0.024	2014-2012	25.4	80.1	16	400	54	0.05	1.740	< 0.004	7.63	45.2	3.1	31	0.066	1700	0.4	1.57	0.103
<0.5	0.021	2014-2830	23	89	7	396	130	0.03	2.000	< 0.01	7.3	50.4	1.6	30.5	0.04	1700	0.102	0.743	0.045
<0.5	0.028	2014-2831	22.6	87	7	398	100	0.036	2.000	< 0.01	7.32	52.1	1.6	30.5	0.041	>2419.6	0.126	0.405	0.045
<0.5	0.014	2014-4082	18.6	60.6	5	334	66	0.01	1.950	< 0.004	7.65	45	1.6	37	0.038	1400	< 0.050	0.587	0.042
0.580	0.016	2014-5274	17.7	60.6	16	321	14	0.019	1.950	0.00	7.3	32	3.6	26	0.046	2000	0.059	0.542	0.117
<0.5	0.015	2014-0610	27.5	214	32	853	4.1	0.109	1.100	0.018	6.8	139	3.92	33.5	0.036	16	0.474	0.869	0.201
0.580	0.015	2014-1276	19.6	179	46	684	18	0.06	1.310	0.004	6.75	112	5.7	22	0.062	160	0.718	1.21	0.286
0.780	0.018	2014-2154	26.3	190	62	675	4.1	0.085	1.110	0.008	6.92	115	6.8	28.5	0.067	1100	0.549	1.44	0.368
0.620	0.033	2014-3362	22.7	158	21	608	63	0.158	0.325	0.017	6.46	92.2	8.6	34.5	0.059	>2419.6	0.856	2.96	0.461
0.760	0.019	2014-5060	24.3	154	56	567	1	0.026	0.548	< 0.004	6.88	97.4	7.8	30.5	0.053	730	0.121	1.06	0.378
0.62	0.015	2014-0928	41	300	13	1080	14	0.471	1.14	0.005	6.97	158	1.39	32	0.028	140	0.436	1.11	0.081
<0.5	0.025	2014-1900	29.1	233	27	868	24	0.238	0.32	< 0.004	7.29	150	3.2	26.5	0.438	550	0.874	4.12	0.122
<0.5	0.022	2014-2683	26.1	239	21	842	41	0.298	0.051	<0.01	7.21	135	3.5	27	0.061	>2419.6	0.554	1.27	0.129
<0.5	0.019	2014-3246	27.2	238	17	844	120	0.151	0.04	0.004	7.42	140	3.5	29	0.019	>2419.6	0.225	0.65	0.122
<0.5	0.017	2014-3247	24.2	236	16	847	28	0.138	0.04	0.004	7.41	125	3.5	30	0.022	>2419.6	0.229	0.81	0.123
<0.5	0.016	2014-4543	28.2	233	16	760	20	0.16	0.066	< 0.004	7.26	141	2.9	28.5	0.006	>2419.6	0.156	0.886	0.115
0.96	0.024	2014-0926	111	961	21	3110	12	0.857	1.66	0.009	6.63	531	0.9	57.5	0.027	870	1.34	3.1	0.089
0.85	0.021	2014-0927	122	982	21	3010	7.3	0.932	1.65	0.009	6.65	569	0.9	57.5	0.023	1400	1.38	3.05	0.088
0.58	0.017	2014-1899	95.1	767	24	2550	78	0.521	0.23	0.008	7.01	416	1.7	55	0.036	1400	0.821	2.88	0.125
1.20	0.045	2014-2682	96	759	31	2520	130	0.908	0.35	0.045	6.98	375	2.1	67	0.187	>2419.6	2.16	4.7	0.147
0.65	0.041	2014-3245	65.6	482	37	1650	120	0.303	0.38	0.02	7.23	279	2.6	63	0.209	>2419.6	1.58	4.1	0.178
0.54	0.028	2014-4542	77.3	532	20	1650	60	0.483	0.346	0.009	6.87	282	2.2	75	0.009	>2419.6	0.398	1.63	0.129

