The Rock Creek Conservancy District

The Rock Creek Conservancy District (RCCD) was established by the landowners within the watershed in the mid 1960's to manage the reconstruction activities and to maintain the works of improvements within the district. The purpose of the Rock Creek project was to reduce upstream flooding and to provide an adequate outlet for the watershed area. Construction on the Rock Creek began in the spring of 1969, and was completed in 1975.

The district is managed by five Directors, who are residents within the Rock Creek watershed, and are acquainted with drainage matters.

RCCD MEETINGS

The Rock Creek Conservancy District meets quarterly; in March, June, September, and December on the second Thursday of the month at 6:00 p.m. at the RCCD office, at 117 W. Harvest Road, Bluffton. Meetings are open to the public. Meeting agendas and minutes are posted at the meeting location.

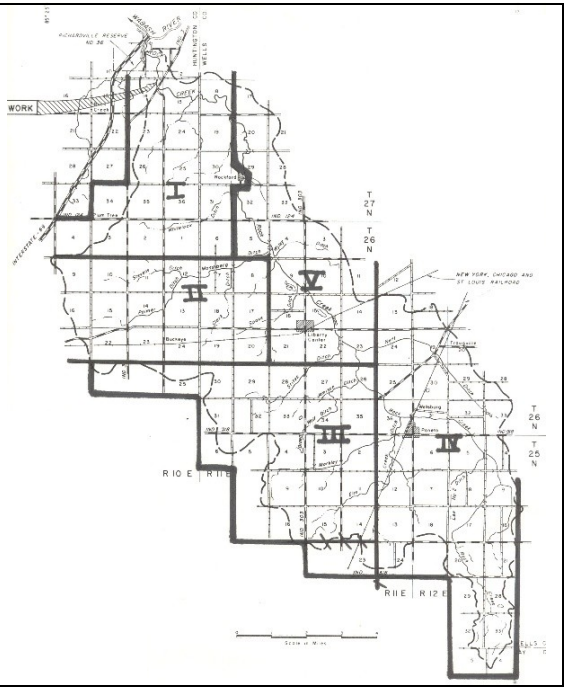
RCCD Directors

I - Robert Mautz
II - Roger Irick
III - Mike Schumm
IV - Jeff Prible
V - Roger McAfee

Contracting Officer
William Elliott

Water Quality Project Coordinator
Mark Grimm

Financial Clerk
Stacia Henderson



Report to the Public of RCCD Activities for 2012

The Rock Creek Conservancy District performed a variety of maintenance measures on the Rock Creek channel and tributaries in 2012. A drop-pipe structure was repaired on the Mossburg Ditch west of the Huntington/Wells Co. line. A surface pipe was replaced on the Whitelock Ditch north of SR 124. A new tile and pipe were installed, a pipe was reset and silt was removed from the Rock Creek channel south of Hoosier Highway. Bank sloughing and silting was removed from the Rock Creek channel near CR 800S. Brush was removed from the Liberty Center railroad trestle, and trees were removed from the Rock Creek channel between Hoosier Highway and CR 400 S. The annual spray program was completed on Unit 1 of the Rock Creek channel, from SR 3 Huntington Co. to CR 100 S. Wells Co. Additional spraying was also completed near Hoosier Highway.

The RCCD Water Quality Monitoring Program that began in 1999 continued in 2012. The Water Quality Coordinator and student volunteers conducted two monitoring events where they collected stream flow, sampled for macro-invertebrates, and completed habitat assessment evaluations at 10 sites along the Rock Creek channel. Nitrate and *E. Coli* tests were added to the program in 2012.

Landowners are encouraged to report maintenance needs to the Directors, the Rock Creek Conservancy District Contracting Officer, or the RCCD office, phone 260/824-0624 ext. 3.

Easements and Right-of-Ways

The Rock Creek Conservancy District has a permanent easement and right-of-way of 75 to 125 feet each side of the Rock Creek, measured from the center of the channel; and on some of its tributaries. This easement and right-of-way is for the purpose of construction and maintenance of the works of improvement.

Landowners retain full possession and control of their land. The easement and right-of-way area is private property. Anyone entering the right-of-way must contact the Landowner for permission to use the area.

Rock Creek Conservancy District

General Fund Financial Report January 1 – December 31, 2012

CHECKING - Balance January 1, 2012		**$ 25,734.76**	
RECEIPTS			
Huntington Co.Tax Income	$ 3,239.41		
Wells Co. Tax Income	18,898.20		
Interest Income – Checking	13.95		
Interest Income – CD	839.63		
Miscellaneous Income	179.00		
Sales Tax Received	12.53		
Payroll Tax Liabilities	127.24		
TOTAL RECEIPTS		**23,309.96**	
Sale of Investments		**165,002.00**	
EXPENDITURES			
Directors	$ 950.00		
Financial Clerk	2,250.00		
Contracting Officer	2,500.00		
Legal Services	65.00		
Postage	190.00		
Travel	204.50		
Legal Notices/Advertising	221.62		
Insurance - Bond	276.00		
Insurance - Liability	558.00		
Maintenance	20,538.65		
Contingency	959.93		
TOTAL EXPENDITURES		**28,713.70**	
Purchase of Investments		**115,001.00**	
CHECKING - Balance December 31, 2012			**$ 70,332.02**
INVESTMENTS			
ALL CDs - Balance January 1, 2012		**$115,001.00**	
RECEIPTS			
Purchase of Investments	$115,001.00		
TOTAL RECEIPTS		**115,001.00**	
EXPENDITURES			
Sale of Investments	$165,002.00		
TOTAL EXPENDITURES		**165,002.00**	
ALL CDs - Balance December 31, 2012			**$ 65,000.00**
SAVINGS - Balance January 1, 2012		**$ 15,002.40**	
RECEIPTS			
Interest	14.86		
TOTAL RECEIPTS		**14.86**	
EXPENDITURES			
None	$ 0.00		
TOTAL EXPENDITURES		**0.00**	
SAVINGS - Balance December 31, 2012			**$ 15,017.26**
TOTAL CASH & INVESTMENTS DECEMBER. 31, 2012			**$150,349.28**

This Financial Report is true to the best of my knowledge.

Stacia L. Henderson, Financial Clerk

RCCD Water Quality Monitoring Program

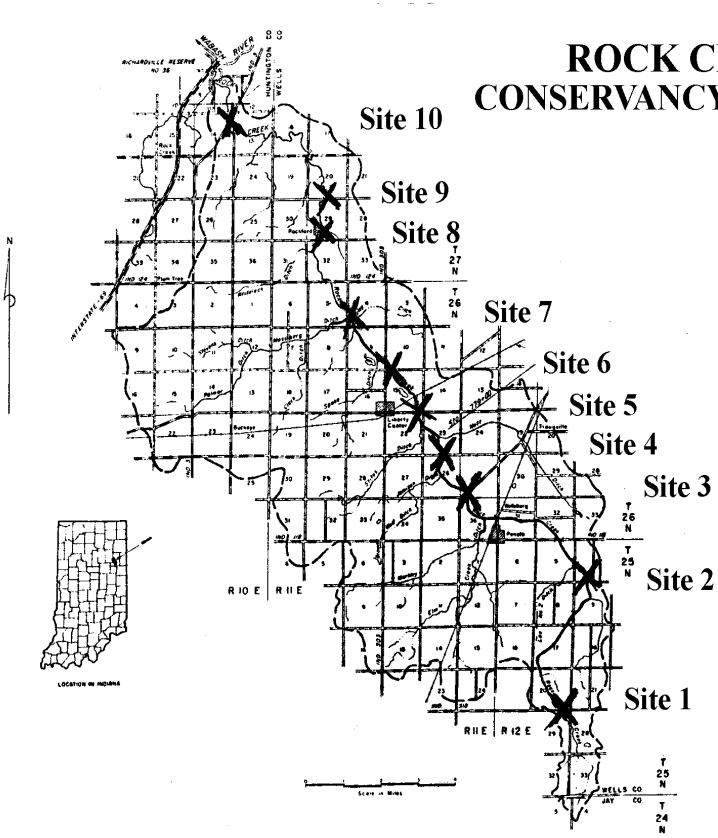
The Rock Creek Water Quality Monitoring Program began in 1999. Under the direction of the watershed coordinator, Mark Grimm, students collected water samples and sent them to a lab for chemical testing for possible contaminants to the creek. In 2002, the collection of benthic macro-invertebrates, habitat assessments, and stream flow measurements were added to the program. The RCCD stopped testing for the chemical pollutants in 2006, in an effort to make the program more cost effective. By collecting the macro-invertebrates, habitat assessments, and stream flow measurements, the RCCD gets the same outcome; an indication of whether the creek is healthy or not.

Unlike chemical monitoring, which provides information about water quality at the time of measurement, biological monitoring can provide information about past and/or episodic pollution. Collecting macro-invertebrates is just one of many ways to biomonitor; that is the use of organisms to assess environmental conditions. Biological stream monitoring is based on the fact that different species react to pollution in different ways, and has become a significant activity for biologists, consulting companies and universities, as well as volunteers that are trained in water quality monitoring.

Using all of the data together; macro-invertebrate collections, habitat assessments, and stream flow; we evaluate the water quality conditions of the Rock Creek channel. It gives Rock Creek a baseline or benchmark for future reference if something would happen to dramatically change the Rock Creek water quality. It will be much easier to fix a problem that is identified early before it grows into a large issue. Over the years, the Rock Creek channel has had pollution tolerance index ratings ranging from excellent to poor, which is very common for streams and rivers in Indiana that have a primary use as drainage for cropland, small towns and rural housing. It is noted however, that fish and wildlife in and around the Rock Creek appears abundant, even during periods of low flow. In 2012, the RCCD added Nitrate and *E.Coli* testing to the monitoring program.

For copies of past data reports, or if you have questions, contact the Rock Creek Conservancy District office or Water Quality Project Coordinator, Mark Grimm at 260/824-0624 ext. 3.

Water Quality Monitoring Project Sites



Monitoring Site Locations

Sites 1—9 are in Wells Co.; Site 10 is in Huntington Co.

Site 1: CR1000 S between CR100 E & CR200 E
Site 2: CR700 S between CR200 E & CR250E
Site 3: CR500 S on Hoosier Hwy
Site 4: CR400 S between CR100 W & CR200 W
Site 5: CR300 S between CR200 W & CR300 W
Site 6: CR200 S between CR200 W & CR300 W
Site 7: CR400 W between CR100 S & SR 124 W
Site 8: CR100 N between CR400 W & CR500 W
Site 9: CR200 N between CR400 W & CR500 W
Site 10: on SR 3 in Huntington County

Bio-Monitoring

Biological monitoring, the collection of macro-invertebrates that are present in the stream, are divided into pollution tolerance groups then additional factors are applied to allow the RCCD to assign and track the Pollution Tolerance Index for each site.

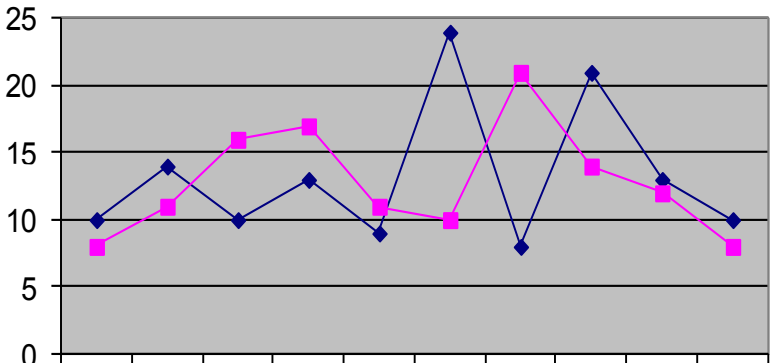
POLLUTION TOLERANCE GROUPS

PT Group 1 *Intolerant*	**PT Group 2** *Moderately Intolerant*	**PT Group 3** *Fairly Tolerant*	**PT Group 4** *Very Tolerant*
Stonefly Nymph	Damselfly Nymph	Midge Larvae	Left-handed Snail
Mayfly Nymph	Dragonfly Nymph	Black Fly Larvae	Aquatic Worms
Caddis Fly Larvae	Sowbug	Planaria	Blood Midge
Dobsonfly Larvae	Scud	Leech	Rat-tailed Maggot
Riffle Beetle	Crane Fly Larvae		
Water Penney	Clams/Mussels		
Right-handed Snail	Crayfish		

POLLUTION TOLERANCE INDEX

23 or more = Excellent
17-22 = Good
11-16 = Fair
10 or less = Poor

2012 Pollution Tolerance Index Results



	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
8/17/2012	10	14	10	13	9	24	8	21	13	10
6/4/2012	8	11	16	17	11	10	21	14	12	8

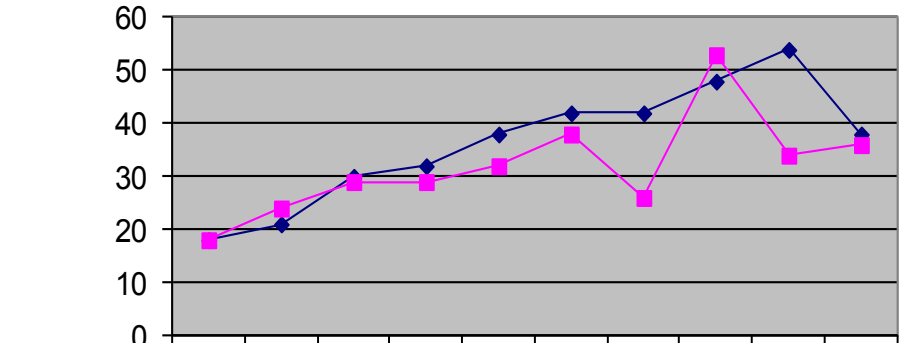
Reports from 2002 - 2012 can be obtained from the RCCD office.

Habitat Assessments

Another method used to measure the water body's health is habitat assessment. The condition of the substrate (bottom) and the land within and adjacent to the stream channel is critical to the health of the stream and its ability to support aquatic life. The Citizens Qualitative Habitat Evaluation Index (CQHEI), utilizes land use, substrate, flow rate, depth, shape, riparian vegetation, and erosion or sedimentation to provide a measure of stream habitat and riparian health that generally corresponds to the physical factors that affects fish and other aquatic life, such as macro-invertebrates. The CQHEI was designed to be used primarily in wade-able streams. The CQHEI produces a total score that can be used to compare changes at one site over time, or compare different sites, and will often mirror the results from the macro-invertebrate collections.

The maximum total points for the CQHEI is 114. If the score is over 100 it is considered an exceptional high-quality stream. A set of ranges for excellent, medium, poor, and very poor has not yet been developed for this index, but scores over 60 are found to be generally conducive to the existence of warm water fauna.

2012 CQHEI Results



	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
8/17/2012	18	21	30	32	38	42	42	48	54	38
6/4/2012	18	24	29	29	32	38	26	53	34	36

Reports from 2002 - 2012 can be obtained from the RCCD office.

Stream Flow

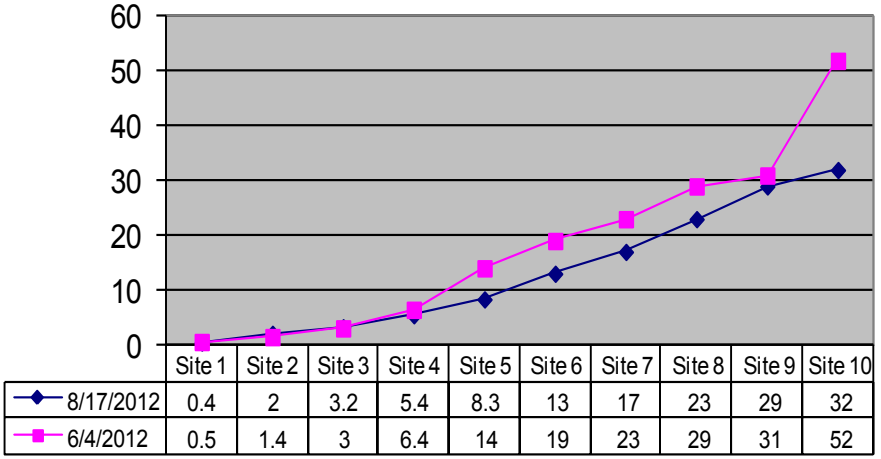
Stream flow calculations are important because stream flow influences other physical, chemical, and biological factors in the stream. A high discharge rate may indicate recent rainfall or snowmelt events. When a large amount of rain runs off the land, it often carries sediments and nutrients into the stream. Very low discharge rates may indicate dry conditions, which also effects water quality and aquatic life. The rain fall data below was collected at the Bluffton station, by the Indiana State Climate Office, Purdue University.

2012 Rain Fall Data

January	2.71	July	3.29
February	2.22	August	4.23
March	2.3	September	2.92
April	1.31	October	3.36
May	1.88	November	0.79
June	1.19	December	2.47
		2012 TOTAL	**28.67**

2011	**54.46**
2010	**35.79**
2009	**41.71**
2008	**42.00**
2007	**39.93**
2006	**44.26**

2012 Stream Flow Results



Reports from 2002 - 2012 can be obtained from the RCCD office.

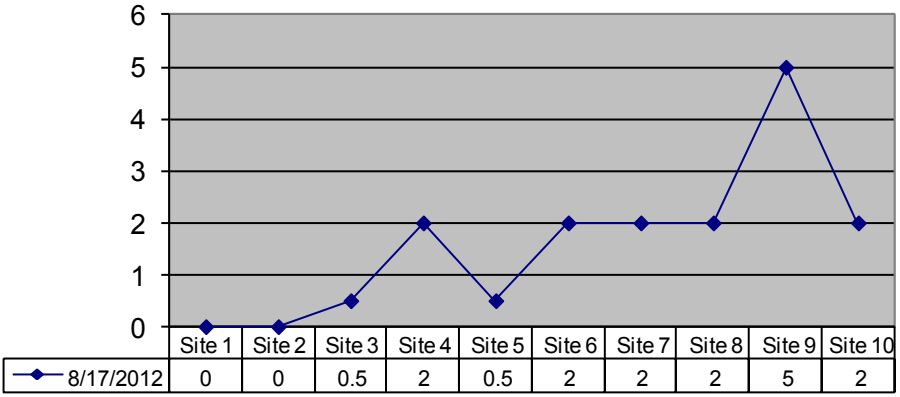
Chemical Tests

The RCCD added chemical testing for Total Nitrate and *E.Coli* to the biological testing to further evaluate possible contaminants to the Rock Creek .

MCL = maximum contaminant level that is the highest permissible level of a contaminant in water that is delivered to any public water system.

2012 Total Nitrate Results

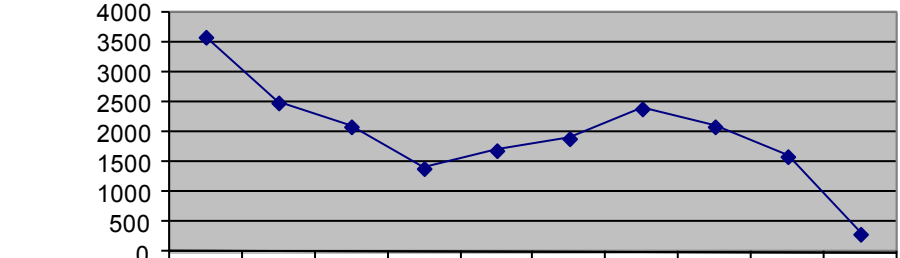
mg/L MCL=10mg/L



	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
8/17/2012	0	0	0.5	2	0.5	2	2	2	5	2

2012 E.Coli Results

colonies/100 ml MCL=235col./100ml for total body contact



	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
8/17/2012	3600	2500	2100	1400	1700	1900	2400	2100	1600	300

Reports from past Nitrate and *E.Coli* tests (1999 - 2005) can be obtained from the RCCD office.