

Blacks Creek Maintenance Pond

Project Summary

Introduction

The Blacks Creek Pond Construction Project consists of the construction of a dewatering and storage pond upgradient of the existing BC16 and BC19/19B mine water treatment systems. The pond was situated to utilize existing stormwater diversions in the form of a grass-lined diversion ditch and road ditch along Porter Road. The pond will be used to dewater and store accumulated solids (precipitates and excess vegetation) from the nearby BC16, BC19/19B, and McIntire treatment systems on an on-going as-needed basis. Fluid can be pumped into the pond from the three systems, where the solids will be allowed to settle, and the dewatering device used to drain clarified water back into the existing BC16 mine water treatment system. As part of this project, the existing BC19/19B treatment system was cleaned and material pumped to the new pond. Photos of the pond and BC19/19B system are included below.

Project Goals & Results

The goal of the project was to design, permit, and construct a new dewatering and storage pond, clean the existing BC19/19B mine water treatment system, and sample Blacks Creek and the BC19/19B treatment system. All project goals were met. The project effectively designed and permitted the Blacks Creek Pond with construction completed in June of 2022. In the same month, the BC19/19B treatment system was cleaned, removing accumulated solids that were dewatered and retained in the newly constructed pond. Post construction water sampling and as-built surveys were conducted in late June of 2022 soon after the completion of construction activities. The as-built drawing is attached, and the water monitoring can be found in the table below.

Datashed Links

Additional data for the aforementioned passive treatment system and other points related to the passive systems located in Blacks Creek is available on www.datashed.org, specifically, <https://www.datashed.org/project-bc19-19b>; <https://www.datashed.org/index.php/project-bc16>; and <https://www.datashed.org/index.php/project-mcintire>.

Water Monitoring Data (Sample Date: 06/27/2022)

Monitoring data is from a single event taken less than a month after the cleaning of the BC19/19B treatment system. Water quality is expected to improve as the treatment wetland vegetation is reestablished and iron precipitation and settling increases. Sample point locations are shown on the As-built drawing.

Sample Point	Flow gpm	pH field	ORP mV	Alkalinity mg/L		Acidity mg/L	T. Fe mg/L	T. Mn mg/L	T. Al mg/L	SO4 mg/L
				field	lab					
BC-2B	NS	7.83	63	112	102	-88	2.89	1.58	0.00	244
BC19	56	7.08	30	93	77	-40	14.46	5.51	0.00	402
BC19B	38	6.76	4	157	87	-56	26.58	5.15	0.00	399
BC19 RAW	18	7.26	32	67	66	-39	8.02	5.80	0.00	369
BC-2	NS	7.89	23	115	104	-73	3.43	1.28	0.00	218
906-42	NS	7.61	7	109	102	-66	3.76	1.34	0.00	211
BC-4	NS	8.08	37	122	116	-78	0.38	0.09	0.00	288

PROJECT COSTS: PA DEP Section 319 Grant \$135,000. Total in-kind and cash match: \$41,855

PARTNERS: BioMost, Inc.; PA DEP; Stream Restoration Incorporated; Landowner.

Blacks Creek Pond Construction – Photos (1 of 2)



Top: View of new maintenance pond facing East.

Bottom: View of new maintenance pond facing West.

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EPA Section 319 Project #1819

Marion Twp., Butler Co., PA

Operation, Maintenance, & Replacement Plan

Stream Restoration Incorporated

July 2022

Blacks Creek Pond Construction – Photos (2 of 2)



Left: Cleaned area of BC19/19B view facing south.

Bottom: Cleaned area BC19/19B facing North.