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west virginia department of environmental protection

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Jim Justice, Governor  
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December 19, 2017

The Honorable Mitch Carmichael, Chair  
The Honorable Tim Armstead, Chair  
Joint Committee on Government and Finance  
1900 Kanawha Boulevard, East  
Charleston, West Virginia 25305

Dear President Carmichael and Speaker Armstead:

Enclosed is a compilation of receipts and expenditures from the Stream Restoration Fund (SRF) for fiscal years 1999 through 2017, as required by WV Code §22-11-7a(2)(D). Expenditures for each fiscal year have been itemized. The following is activity for fiscal year 2017:

- Expenditures - During fiscal year 2017 \$534,201 was deposited into the SRF and \$2,082,305 was expended from the fund. Expenditures consisted of \$89,367 for remediation on Barton Bench Project in Randolph County; \$60,000 for design on the Buffalo Creek Watershed in Logan County; \$77,500 for administration of stream restoration projects in various counties; \$60,000 for design on the Lower Coal Restoration project in Kanawha and Lincoln counties; \$51,617 for construction on the Preston County Waterline Project; \$150,000 for design on the Buffalo Creek Project in Clay County; \$200,000 for design on South Fork of Cherry River Project in Greenbrier and Nicholas counties, \$332,096 for construction and monitoring of Nonpoint Source Remediation projects in Harrison, Monongalia, Raleigh, and Upshur counties; \$1,061,279 for construction on New Haven PSD project in Fayette county; and \$446 for miscellaneous expenses.
- Acres of Streams Reclaimed – FY2017 completed the Barton Bench Project restoration work on a 90-acre parcel of the Mower Tract. The project scope was to restore a previously reclaimed area to pre-mining conditions. Final design work for twelve (12) additional stream enhancement structures on Buffalo Creek in Logan county was completed during the 4<sup>th</sup> Quarter of FY2017. Installation of these structures is scheduled to begin during the 1<sup>st</sup> Quarter of FY2018 and will require approximately 4 weeks to

Promoting a healthy environment.

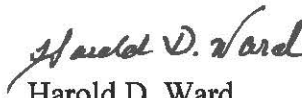
complete, subject to weather and stream conditions. Completion of the project will result in 0.45 miles (1.38 acres) of stream restoration/enhancement. Stream survey, data processing and mapping was completed on a 2-mile reach of the Coal River Mainstem. This survey work was completed during the 3<sup>rd</sup> Quarter, FY2017. Design work is expected to be completed by the 2<sup>nd</sup> Quarter, FY2018 with construction to begin during the 3<sup>rd</sup> Quarter, FY2018, pending weather and stream conditions. Completion of the project will result in 2.0 miles (30 acres) of stream restoration/enhancement. The Preston County Waterline Project provides funding for 24 of 62 miles of waterline and 25 fire hydrants for the Hudson to Stateline II Waterline Extension. Final design work covering an 800-foot section of Buffalo Creek in Clay County was completed during the 3<sup>rd</sup> Quarter, FY2017. Construction projected to begin during the 3<sup>rd</sup> Quarter, FY2018. Completion of the project will result in 0.15 miles (1.29 acres) of stream restoration/enhancement. Stream survey of a 1-mile reach of the South Fork of the Cherry River was completed during the 4<sup>th</sup> Quarter, FY2017. Data gathered will be used to design log and boulder structures to enhance the stream channel and stabilize the stream bank. Depending on final design, efforts could result in approximately 4 acres of stream restoration. Construction work projected to begin during 3<sup>rd</sup> Quarter, FY2018. A total of 10.7 miles of streams impacted by abandoned mine drainage were reclaimed in the following watersheds: Lambert Run of West Fork 9 acres; Swamp Run of Buckhannon (project switched from Herods Run in the same watershed) 1 acres; West Run of Monongahela 0.7 acres. The New Haven Winona project consists of the installation of 89 septic tank effluent gravity systems (STEG) tanks with cleanouts; 10 septic tank effluent pumping system (STEP) tanks; 19,275 LF of 4" variable grade sewer line; 750LF of 1.5" force main; 1,400 LF of 2" force main, and 22,000 gallons per day recirculating filter treatment system with a flow equalization tank, recirculating tank, recirculating sand filters, ultraviolet disinfection, wetlands and an effluent discharge to Keeney Creek.

- Effectiveness of Stream Restoration – Restoration efforts are complete on the 90-acre Barton Bench Project. Restoration of the previously reclaimed surface mine area has returned the site to pre-mining conditions by using modern reclamation methods. Stream restoration, wetland restoration and reforestation of the area will lead to continued improvement and growth of the area ecosystem. Funding provided by the WVDEP Stream Restoration Fund allows for the continued improvement of the Buffalo Creek in Logan County stream environment. The structures from previous work funded by the SRF has proven very effective in the enhancement of aquatic life throughout the stream. The additional structures proposed for FY2018 are expected to provide similar results. A Memorandum of Understanding (MOU 1222-01) between the State Conservation Committee/West Virginia Conservation Agency and the WVDEP was signed during the 1<sup>st</sup> Quarter, FY2017. This MOU will be valid for a period of 3 years and will provided annual funding for the salary and administrative costs related to the WVCA's employment of a Watershed Design Specialist. The specialist will identify stream projects, design abatement options, procure contracts for construction, and conduct oversight and monitoring throughout the restoration project. These projects will focus on streams that have been negatively affected by coal mining and/or acid mine drainage. The approved, annual budget of \$77,500 will cover the salary of the Watershed Design Specialist and associated costs to perform his duties. The Lower Coal River (Coal River Mainstem) Restoration Project begins at the confluence of the Big Coal River and Little Coal River with the Coal River (Mainstem) and proceeds 2-mile downstream. Previous restoration work performed upstream on the Lower Coal River has proven extremely

successful in improving the overall quality of the stream. The data gathered during the stream survey on the Coal River Mainstem will provide the necessary data to design the appropriate stream enhancement structures. This work is expected to improve overall stream quality by increasing bed complexity, substrate biodiversity and increased biomass over the entire restoration reach. Recreational use of the stream is also expected to increase with the completion of this project. The Preston County Waterline Project will provide a reliable, treated source of public water for 125 customers. Survey and design work on Buffalo Creek of Clay County was completed in FY2017. Construction of the seven (7) stream enhancement structures and other work along the 800' reach is projected to be completed during FY2018. Once completed, these structures are expected to improve the habitat complexity of this reach, enhance aquatic life, and improve the trout fishery. With the completion of Phase 1 of the South Fork of Cherry River stream restoration project during FY2016, the West Virginia Conservation Agency (WVCA) and WVDEP partnered to continue the downstream restoration in Phase 2. The restoration work planned for Phase 2 will continue to restore South Fork and improve the brook trout habitat of this headwater stream. The installation of log and boulder structures will increase sediment transport and create pools and deeper channels to provide structure to the stream and enhance aquatic life. Stabilization of the stream banks will also greatly reduce erosion and will better insure that the in-stream structures perform as designed. The Swamp Run project in Upshur County removes 79% of the acidity, 69% of the dissolved aluminum, and 85% of the total iron from the mine drainage passing through it. The tributary downstream is now meeting standards for pH and aluminum. The Lambert Run project continues to remove most of the iron from the mine drainage flowing through the treatment system. The system removes approximately 23 tons of iron per year. The West Run project in Morgantown receives 83,000 pounds of acidity per year, but discharges water carrying 22,000 pounds per year of alkalinity. Aluminum and iron loads decrease from 6,000 and 11,800 pounds per year, respectively, to 61 and 5 pounds per year. The New Haven Winona project is to provide an innovative "green" wastewater management system for 99 customers in the town of Winona. The project will remove straight pipes with direct discharges, failing septic tanks, and leach fields discharging raw or partially treated wastewater into local tributaries of Keeney Creek, which flow into the Lower New River Basin and through the project area. Kenney Creek and the Lower New River are presently on the 303(d) list of impaired streams for fecal coliform.

Should you have any questions or require additional information, please contact me at (304) 926-0490.

Sincerely,



Harold D. Ward  
Deputy Secretary

HDW/ch

C: Melinda Campbell  
Lewis Halstead

Craig Hatcher  
Teresa Koon  
Legislative Auditor

**Fund 3349 Stream Restoration (Fiscal Years 1999-2016)**

<u>Fiscal Year</u>	<u>Receipts</u>	<u>Expenditures</u>
1999	\$799,575	\$0
2000	\$606,581	\$0
2001	\$540,324	\$0
2002	\$252,441	\$3,133
2003	\$159,155	\$462,508
2004	\$675,905	\$1,440,133
2005	\$301,146	\$125,710
2006	\$293,174	\$458,565
2007	\$1,413,396	\$296,906
2008	\$824,952	\$317,257
2009	\$8,988,752	\$343,231
2010	\$3,299,729	\$264,615
2011	\$1,119,345	\$443,625
2012	\$2,393,806	\$1,247,443
2013	\$1,287,449	\$4,439,388
2014	\$860,587	\$2,618,613
2015	\$434,384	\$2,769,686
2016	\$253,261	\$290,203
2017	\$534,201	\$2,082,305

Commitments: New Haven PSD \$1,078,597; Buffalo Creek (Logan Co.) \$60,000; Canaan Valley Institute \$15,831; Preston Co. Waterline \$2,948,383; Lower Coal River Restoration Project \$940,000;

**Fund 3349 Stream Restoration Expenditures by Project**

<u>Project</u>	<u>FY02-10</u>	<u>FY2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>Project Totals</u>
Chief Logan Dam	\$1,905,774								\$1,905,774
Dunloup Creek/Kilsyth Sewage Treatment Project	\$325,000								\$325,000
Wallback Dam	\$405,101								\$405,101
Laurel Lake Dredging Project	\$96,820								\$96,820
Ohley Stream Bank Restoration	\$101,467								\$101,467
Devils Fork Treatment System	\$59,334	\$45,517	\$43,982	\$9,059					\$157,892
Logan Flood Plain Initiative	\$185,000								\$185,000
Summerlee AMD Treatment	\$50,000								\$50,000
Stream Partners Sub-Grants	\$267,280								\$267,280
Evaluation of Little Coal River	\$85,000	\$80,000	\$109,991	\$110,000	\$55,000				\$439,991
Ashland Wastewater Treatment Plant	\$149,127								\$149,127
Lambert Run	\$57,451			\$79,059	\$19,863				\$156,373
Barton Branch		\$634	\$50,520	\$71,017	\$13,741	\$12,627		\$89,367	\$237,906
Nonpoint Source Remediation		\$314,897	\$446,920	\$296,985	\$1,259,473	\$324,588	\$614,739	\$332,096	\$3,589,698
Lower Davis Creek Restoration			\$31,885	\$38,020	\$17,060				\$86,965
WV Conservation Agency			\$204,300					\$77,500	\$281,800
Little Coal River Design			\$301,300	\$749,539	\$1,232,402	\$1,745,584	-\$427,983		\$3,600,842
Buffalo Creek (Logan Co.)				\$611,000		\$335,000	\$15,000	\$60,000	\$1,021,000
Lincoln County Water Line				\$2,400,000		\$352,000			\$2,752,000
WV Watershed Assessment				\$65,923	\$18,533				\$84,456
Lower Coal Restoration								\$60,000	\$60,000
Preston County Waterline								\$51,617	\$51,617
Buffalo Creek (Clay Co.)								\$150,000	\$150,000
South Fork Cherry River							\$88,000	\$200,000	\$288,000
New Haven PSD								\$1,061,279	\$1,061,279
Miscellaneous	\$24,703	\$2,577	\$58,545	\$8,786	\$2,540	-\$113	\$447	\$446	\$97,931
<b>Totals</b>	<b>\$3,712,057</b>	<b>\$443,625</b>	<b>\$1,247,443</b>	<b>\$4,439,388</b>	<b>\$2,618,613</b>	<b>\$2,769,686</b>	<b>\$290,203</b>	<b>\$2,082,305</b>	<b>\$17,603,320</b>