



Public Notice

**U S Army Corps
of Engineers**
Huntington District
Regulatory Division

In reply refer to Public Notice No.

LRH-2017-00586

Issuance Date:

February 22, 2018

Stream:

N/A

Closing Date:

February 22, 2023

Please address all comments and inquiries to:

U.S. Army Corps of Engineers, Huntington District

ATTN: CELRH-RD-E Public Notice No. (*reference above*)

502 Eighth Street

Huntington, West Virginia 25701-2070

Phone: (304) 399-5610

REGIONAL GENERAL PERMIT FOR ABANDONED MINE LANDS WITHIN THE HUNTINGTON AND PITTSBURGH DISTRICTS FOR THE STATE OF WEST VIRGINIA

TO WHOM IT MAY CONCERN: In accordance with Title 33 CFR 325.5(c)(1) as published on November 13, 1986, in the Federal Register, Volume 51, Number 219, the district engineers of the Huntington and Pittsburgh Districts United States (U.S.) Army Corps of Engineers (Corps), has re-issued the Regional General Permit (RGP) for Abandoned Mine Lands (AML) for the discharge of dredged and/or fill material into waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. This RGP is effective and available for use within the entire State of West Virginia by the West Virginia Department of Environmental Protection (WVDEP), any non-profit 501(c)(3) watershed organizations or their subsidiaries, the West Virginia Conservation Agency (WVCA) and their respective Soil Conservation Districts and the West Virginia Division of Natural Resources (WVDNR), to authorize projects associated with AML and acid mine drainage (AMD) that require the discharge of dredged or fill material into waters of the U.S.

BACKGROUND: RGPs are general permits issued by a district or division engineer on a regional basis to streamline the authorization of activities that result in no more than minimal individual and cumulative adverse environmental effects. As part of the WVDEP's responsibilities for the protection and restoration of the environment in West Virginia, the WVDEP administers two programs that focus on the restoration of environmental damage associated with coal mining activities that occurred prior to the passage of the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-87, 30 USC 1234-1328, SMCRA). These programs include the AML and the Non-Point Source (NPS) programs.

AML PROGRAM: On August 3, 1977, Congress passed the SMCRA. In enacting the SMCRA, Congress identified lands located throughout major regions of the U.S., such as the Appalachian Mountains, which had been disturbed by surface and underground coal mining operations with little or no reclamation. Congress also recognized the impacts from these un-reclaimed lands imposed social and economic costs on the residents in nearby and adjoining

areas as well as the impairment of environmental quality. Section 102(h) of the SMCRA defines one of its purposes as the promotion of the reclamation of mined areas left without adequate reclamation prior to its enactment and in their un-reclaimed condition: substantially degrade the quality of the environment; prevent or damage the beneficial use of land and water resources; and/or endanger the health or safety of the public. Title IV of the SMCRA addresses Abandoned Mine Reclamation, including the establishment of the Abandoned Mine Reclamation Fund (AML Fund) and defines the purposes for which the AML Fund may be used.

The U.S. Department of Interior, Office of Surface Mining Reclamation and Enforcement (OSMRE) is the federal agency responsible for ensuring that the requirements of the SMCRA are implemented; however, many individual states have been given the primary regulatory responsibility. In January 1981, the OSMRE approved the West Virginia's State Reclamation Plan, giving the state responsibility and authority to implement a state abandoned mine reclamation program. The WVDEP, Office of Abandoned Mine Lands and Reclamation (OAML) has been addressing abandoned mine lands throughout the state since 1981.

The AML Fund also provides funding through the Appalachian Clean Streams Program to address polluted drainage from abandoned coal mines. Mine drainage may contain high levels of metals and is often acidic. Polluted mine drainage is often referred to as AMD, although the water may sometimes be alkaline rather than acid. AMD treatment projects are being conducted throughout the state by non-profit watershed groups, frequently using funds from various government organizations.

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) also provides funding and/or technical assistance for projects that address AML. The funding of these projects occurs through three programs: the Small Watershed Program (authorized by Public Law 83-566, the Watershed Protection and Flood Prevention Act of 1954 (16 USC 18)), the Potomac River Watershed program (authorized by Public Law 78-534, the Flood Control Act of 1944 (16 USC 460; 33 USC 701), and the Rural Abandoned Mine Fund, authorized under the SMCRA. The NRCS distributes this funding to sponsors that include the WVCA and their respective Soil Conservation Districts.

NPS PROGRAM: The WVDEP's Division of Water and Waste Management (DWWM) has the primary responsibility for ensuring the state complies with the Federal Water Pollution Control Act (Title 33 Chapter 26), referred to as the Clean Water Act. Under Section 303(d)(1)(A) of the Act, the state is required to "identify those waters within its boundaries for which the effluent limitations required are not stringent enough to implement any water quality standard applicable to such waters" and to "establish a priority ranking for such waters." This is referred to as the 303(d) List. Paragraph (C) of this section of the Act requires the state to establish the total maximum daily load (TMDL) of pollutants discharged into waters on the list. Subsection (2) requires the state to incorporate the TMDL into its "current plan" after approval by the Administrator of United States Environmental Protection Agency USEPA).

Water quality impacts resulting from coal mining conducted prior to the regulation of the coal industry under the SMCRA are primarily responsible for many of West Virginia's waters being placed on the 303(d) List. *West Virginia's Nonpoint Source Program Management Plan, 2014 (Plan)* sets the implementation of treatment systems to improve water quality in priority watersheds as a major goal of the NPS program. The *Plan* commits the NPS program to implementing AMD projects in the state's priority watersheds up to the year 2020.

The NPS program provides grants for project funding (for design, construction, oversight and monitoring by the OAML) without any long term funding for operation and maintenance. This restriction limits the NPS program to funding, almost exclusively, passive AMD treatment systems for coal mine drainage. Treatment systems typically include the collection and treatment of polluted water within and adjacent to affected watercourses.

PERMITTEE INFORMATION: This RGP may be used by the WVDEP, any non-profit 501(c)(3) watershed organizations or their subsidiaries, the WVCA and their respective Soil Conservation Districts and the WVDNR, for project associated with AML and AMD that require the discharge of dredged and/or fill material into waters of the U.S.

SCOPE OF WORK: This RGP may be used for the following activities, subject to all appropriate terms and conditions: site access and preparation for active AMD treatment such as the establishment of dosing systems, application of limestone fines, and construction of limestone leach beds; site work associated with mine land reclamation, other related projects such as wetland construction, enhancement, and removal; stream channel lining; mine seal installation; channel diversion; impoundment construction; underdrain construction, highwall backfilling, regrading and capping of overburden and/or refuse spoils, disposal of spoil, piping, grouting in-situ, stream relocation, coal refuse sediment removal; bank and/or slope stabilization; construction of sediment control structures, reducing bioreactors, vertical flow ponds, diversion wells, successive alkaline producing systems, anoxic limestone drains; sludge removal, maelstrom oxidizer, refuse excavation and quenching; landslide repairs and subsidence control; mine fire excavation, quenching, trenching, and foaming; shaft backfilling and capping; and retaining wall construction, in addition to other passive and active mine drainage treatment technologies.

This RGP applies to all aquatic resources (e.g., streams, wetlands) under the jurisdiction of the Corps within the Huntington and Pittsburgh Districts in West Virginia, except those excluded under conditions of the RGP or conditions imposed by the state water quality certification. The permittee is responsible for ensuring the work is performed in accordance with the attached terms and conditions. Work performed under this authorization can be suspended, modified or revoked in accordance with 33 CFR 325.7 if a later determination is made by the Corps that the information provided was inaccurate, incomplete or done in bad faith. In the event of such a determination, the Corps may use the suspension, modification or revocations procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The RGP is effective for five (5) years from the date of issuance.

PRE-CONSTRUCTION NOTIFICATION PROCEDURES: To ensure the activities authorized by the RGP cause no more than minimal individual and cumulative adverse environmental effects, pre-construction notification (PCN) to the district engineer is required before commencing the activity. The following PCN information will be provided to the appropriate Corps' District concerning each project, prior to the initiation of reclamation work:

1. Name, address and telephone numbers of the property owner;
2. Name, address and telephone numbers of the prospective permittee;
3. Name, address and telephone numbers of entity responsible for project operation, maintenance, and monitoring;
4. Exact location of the work, including a location map on USGS 7.5 Minute Series Quadrangle, with Latitude and Longitude in decimal degree format (e.g. Latitude 38.2111 and Longitude -81.3533);
5. A description of the proposed activity. The description of the proposed activity must be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will be no more than minimal and to determine the need for compensatory mitigation or other mitigation measures. The description must include the following, as applicable:
 - a. description of project purpose and need, including baseline conditions and anticipated conditions upon project construction;
 - b. description of any anticipated maintenance activities;
 - c. amount of dredged and/or fill material to be discharged into waters of the U.S., expressed in linear feet and acres for streams and acres for wetlands and open waters;
 - d. volume of material (expressed in cubic yards) to be discharged below the ordinary high water mark; and
 - e. If bank stabilization is proposed along both banks of a stream, the linear footage should be provided separately for each bank;
6. A delineation of all potential waters of the U.S. located within the project boundary, including stream (ephemeral, intermittent and perennial), open waters (such as impounded structures) and wetlands identified. All wetlands must be delineated in accordance with "The 1987 Corps of Engineers Wetland Delineation Manual" and "Regional Supplement to the Corps Wetland Delineation Manual: Eastern Mountains and Piedmont Region." The extent of waters of the U.S. must be identified in accordance with the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329;
7. Project plans and cross section views depicting boundaries of waters of the U.S. and boundaries of the proposed work. Drawings should contain sufficient detail to provide an illustrative description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans;
8. Ground photographs with locations and directional views depicted on a site plan;
9. A description of the expected direct and indirect adverse environmental effects the activity would cause;

10. A description of the ways in which adverse impacts to waters of the U.S. have been avoided and minimized. The district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure the activity results in minimal adverse environmental effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources, if required, must comply with the applicable provisions of 33 CFR 332;
11. The location of any water intakes in the vicinity of the project;
12. The name(s) of those endangered or threatened species that might be affected by the proposed activity or utilize the designated critical habitat that might be affected by the proposed activity;
13. A statement regarding any historic property which might have the potential to be affected by the proposed activity or a vicinity map indicating the location of the historic property;
14. For an activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a Corps federally authorized civil works project (USACE project), a statement confirming that the project proponent has submitted a written request for section 408 permission from the Corps office having jurisdiction over that USACE project; and
15. A restoration plan showing how all temporary fills and structures will be removed and the area restored to pre-project conditions.

Note: Written authorization from the appropriate Corps District is required prior to commencement of any work resulting in a discharge of dredged and/or fill material into waters of the U.S. associated with this RGP.

AGENCY NOTIFICATION PROCEDURES: Notification to the appropriate resource agencies, including the U.S. Environmental Protection Agency (USEPA), the USFWS, the WVDEP, the WVDNR, the West Virginia Division of Culture and History and the U.S. Department of Agriculture NRCS will be required for the following types of projects:

1. conversion, degradation or elimination of greater than 0.25 acre of waters of the U.S.;
2. relocation of streams;
3. discharge of dredged or fill material into greater than 300 linear feet of stream for projects involving valley fill construction necessary to provide for the disposal of excess spoil;
4. projects involving the discharge of dredged or fill material that include the lining of perennial streams or lining of greater than 500 linear feet of intermittent streams; and
5. projects involving the discharge of dredged or fill material that include increases in perennial or intermittent stream channel capacities in excess of 500 linear feet.

The Corps will provide the resource agencies copies of the permit application and plans. These agencies will have 30 calendar days to provide substantive, site-specific comments. To expedite this review, it is requested that permit applications for projects subject to agency notification contain one original hard copy and six (6) electronic copies (CDs). The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the RGP, including the need for mitigation to ensure the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency. The district engineer will indicate in the administrative record associated with each PCN that the resource agencies' concerns were considered.

WATER QUALITY CERTIFICATION: A copy of the required Section 401 Water Quality Certification issued by the WVDEP for this RGP is attached.

RGP REVALUATION: The policies of this RGP are subject to review and consideration at any time. At the end of the five (5) years, a complete re-evaluation will be performed according to the regulations governing the use of the RGPs.

For further information contact:

U.S. Army Corps of Engineers
ATTN: CELRH-RD-E
502 8th Street
Huntington, West Virginia 25701-2070

U.S. Army Corps of Engineers
ATTN: CELRP-OP-F
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222-4186

A. Special Conditions of the RGP for Abandoned Mine Lands Reclamation for the State of West Virginia

1. This RGP will not authorize:
 - a. Activities that may result in more than minimal adverse impacts to the aquatic environment;
 - b. Activities that result in substantial increases in channel capacity;
 - c. Activities involving the discharge of steel slag in waters of the United States;
 - d. Activities that would affect historic, cultural or archaeological sites listed or eligible for listing in the National Register of Historic Places (NRHP), unless coordination is completed as required by Section 106 of the National Historic Preservation Act (NHPA) of 1966 (Section 106) and the Advisory Council on Historic Preservation (ACHP). Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Office (SHPO), and the NRHP (see 33 CFR 330.4(g)). When reviewing PCNs, district engineers will comply with the current procedures for addressing the requirements of Section 106. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed RGP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of Section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect. If the prospective permittee chooses to contact the West Virginia Division of Culture and History (WVDCH) to determine if historic, cultural or archaeological sites within the proposed work areas are eligible for or listed on the NRHP. The response from the WVDCH shall be provided to the Corps. No work shall commence until Section 106 requirements have been satisfied and the Corps' RGP verification letter is provided to the prospective permittee.

- i. Section 110k of the NHPA (54 U.S.C. 306113) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the ACHP, determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, the SHPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the authorized activity on historic properties;
- e. Activities at sites that may affect proposed or listed endangered or threatened species or their designated critical habitat, unless consultation under Section 7(c) of the Endangered Species Act (ESA) has been completed. No work shall commence until Section 7 requirements have been satisfied and the Corps' RGP verification letter is provided to the prospective permittee. Permit applicants may contact the United States Fish and Wildlife Service (USFWS) to determine the presence of potential threatened or endangered species or their habitats.
 - i. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the USFWS <http://www.fws.gov/> or <http://www.fws.gov/ipac> and/or the USFWS, West Virginia Field Office, Ecological Services, who can be contacted by phone at (304) 636-6586 or by writing to 694 Beverly Pike, Elkins, West Virginia, 26241. The USFWS can provide information to assist in complying with this general condition and General Condition 14 pertaining to migratory birds and bald and golden eagles. The current list of waterways supporting federally listed T&E species in West Virginia is provided as **Appendix A**. The prospective permittee should contact the USFWS West Virginia Field Office to obtain the most updated information regarding potential locations known to inhabit endangered or threatened species;

- f. The discharge of dredged and/or fill material in designated components of the National or State Wild and Scenic Rivers Systems, Federal or State designated wildlife management areas or at sites included in the National Registry of Natural Landmarks, unless approval is granted from the administering agency and the Corps' RGP verification letter is provided to the prospective permittee. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, USFWS). Information on these rivers is also available at: <http://www.rivers.gov/>.
 - g. The discharge of dredged and/or fill material proposed in the Nationwide Rivers Inventory streams, unless coordinated with the National Park Service and the Corps' RGP verification letter is provided to the prospective permittee. Inventory Rivers within the State of West Virginia include: Big Sandy Creek (Preston County), Blackwater River, Cheat River, Dry Fork of Cheat River, Glady Fork of Cheat River, Shavers Fork of Cheat River, South Fork of Cheat River, Cherry River, South Fork of Cherry River, North Fork of Cherry River, Cranberry River, Elk River, Left Fork of Elk River, Gauley River, Greenbrier River, East Fork of Greenbrier River, West Fork of Greenbrier River, Holly River, Left Fork of Holly River, Hughes River, North Fork of Hughes River, Laurel Fork (Randolph County), Little Kanawha River, Middle Fork River, Mud River, New River, North River, Otter Creek, Potomac River, North Fork of South Branch of Potomac River, South Branch of Potomac River, South Fork of the South Branch of Potomac River, Red Creek, Seneca Creek, Shavers Fork, Tygart Valley River, and Williams River.
2. All work shall be performed in an environmentally, technically and economically sound manner and shall incorporate natural stream design principles to the maximum extent practicable. The prospective permittee must indicate why natural stream design principles are not practicable for use in the project design.
 3. Stream grouting shall be limited to those projects for which other stabilization methodologies are not practicable. The prospective permittee must indicate why other stabilization methodologies are not practicable.
 4. Adverse impacts to existing wetlands shall be avoided to the maximum extent practicable.
 5. Stabilization through the planting of vegetation is highly encouraged and shall be limited to those species native to West Virginia.
 6. A copy of this RGP must be posted on-site during construction activities.

7. For all AML projects, the permittee will be required to provide pre-project baseline monitoring results, in addition to semi-annual water quality sampling for a minimum of two years. These results must include appropriate mapping to identify monitoring site(s). Monitoring will be conducted at the final discharge(s) of the completed remediation project and the testing results will be submitted to the appropriate Corps District and the WVDEP 401 Certification Program annually and will include all sampling performed for that project during the year.
8. The applicant will invite resource agencies to all field reviews and provide the WVDNR and the USFWS construction and location details for review a minimum of 30 days prior to initiation of work on streams supporting protected freshwater mussels. The most current list of streams known to support state protected freshwater mussel species is available from the Inter-Agency Coordination Supervisor, WVDNR, Post Office Box 67, Elkins, West Virginia, 26241. The most current list (Appendix B) of these streams can be found at the following weblink: <http://www.wvdnr.gov/Mussels/Appendix%20A%202016.pdf>
9. Prior to commencement of work, Miss Utility of West Virginia must be contacted at 1-800-245-4848 to determine the location of underground utility lines in the project area.

B. General Conditions for RGP for Abandoned Mine Lands Reclamation for the State of West Virginia

1. No activity may cause more than a minimal adverse effect on navigation within the streams listed in **Appendix C**. The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.
2. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g. through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized. Stream work in designated warm water streams and their adjacent tributaries during the fish spawning season, April to June, and trout waters and their adjacent tributaries during the trout water fish spawning season, September 15 to March 31, requires a spawning season waiver from the WVDNR Coordination Unit, at (304) 637-0245. For information about specific stream designations, contact the West Virginia Department of Environmental Protection (WVDEP), Water Quality Standards Section at (304) 926-0495.
4. Activities in waters of the U.S. that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.
5. No activity may occur in areas of concentrated shellfish populations.
6. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).
7. No activity may occur in the proximity (~100') of a public water supply intake unless the prospective permittee obtains written verification from the Corps that the activity is authorized under the RGP.
8. To the maximum extent practicable, the preconstruction course, condition, capacity, and location of open waters must be maintained for each activity. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows.
9. The activity must comply with applicable Federal Administration Management Agency (FEMA)-approved state or local floodplain management requirements.
10. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
11. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark, must be permanently stabilized at the earliest practicable date.
12. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

13. No RGP activity may cause more than minimal adverse effects on tribal rights (including treaty rights), protected tribal resources, or tribal lands.
14. The prospective permittee is responsible for ensuring their action complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The prospective permittee is responsible for contacting appropriate local office of the USFWS to determine applicable measures to reduce impacts to migratory birds or eagles, including whether “incidental take” permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.
15. If the prospective permittee receives a RGP verification letter from the Corps, the prospective permittee must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The Corps will provide the prospective permittee with a copy of the certification document with the RGP verification letter.
16. A RGP activity that requires permission from the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a USACE federally authorized Civil Works project (a “USACE project”) is not authorized by the RGP until the appropriate Corps office issues the section 408 permission to alter, occupy, or use the USACE project, and the district engineer issues a written RGP verification. Information on the location of federally authorized Civil Works projects in the State of West Virginia can be obtained by contacting the Corps District.
17. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:
 - a. The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the U.S. to the maximum extent practicable at the project site (i.e., on site).
 - b. Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.
 - c. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.
 - d. The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. The preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b) 2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits

are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

18. If the permittee sells the property associated with a RGP verification, the permittee may transfer the RGP verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the RGP verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this RGP are still in existence at the time the property is transferred, the terms and conditions of this RGP, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this RGP and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

Transferee)

Date)

19. If the permittee discovers any previously unknown historic, cultural or archaeological remains and artifacts while accomplishing the activity authorized by this RGP, they must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
20. Representatives from the Corps will be allowed to inspect the authorized activity at any time deemed necessary to insure that it is being or has been accomplished in accordance with the terms and conditions.
21. In some cases, the Corps may determine that an activity will not impact waters of the U.S. because the water is an isolated wetland or stream that has been determined not to be subject to regulation under Section 404 of the Clean Water Act. However, under West Virginia Code §22-11-8(b)(3), a permit is required to be obtained from the WVDEP-Division of Water and Waste Management (DWWM) to place a waste into any water of the State. Accordingly, any applicant proposing to impact an isolated water must contact WVDEP DWWM to obtain all necessary approvals for activities impacting any isolated State waters.

C. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the RGP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest.
2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the RGP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by RGP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the RGP activity, the type of resource that will be affected by the RGP activity, the functions provided by the aquatic resources that will be affected by the RGP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the RGP activity (*e.g.*, partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (*e.g.*, watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the RGP authorization to address site-specific environmental concerns.
3. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the prospective permittee either: (a) That the activity does not qualify for authorization under the RGP and instruct the prospective permittee on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the RGP subject to the submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the RGP with specific modifications or conditions.

D. Further Information:

1. Congressional Authorities: This activity has been authorized pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.
2. Limits of this authorization:
 - a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
 - b. This permit does not grant any property rights or exclusive privileges.

- c. This permit does not authorize any injury to the property or rights of others.
 - d. This permit does not authorize interference with any existing or proposed Federal project.
3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:
- a) Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
 - b) Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
 - c) Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
 - d) Design or construction deficiencies associated with the permitted work.
 - e) Damage claims associated with any future modification, suspension, or revocation of this permit.
4. Reliance on Applicant's Data: The determination of this office that the activity is not contrary to the public interest was made in reliance on the information provided pursuant to the notification requirement. Any change to the proposed work may make the project ineligible for authorization by this RGP.
5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:
- a) Failure to comply with the terms and conditions of this RGP.
 - b) The information provided with the submitted permit application proves to have been false, incomplete, or inaccurate (See 4 above).
 - c) Significant new information becomes available which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5.

6. Consent to easement over and under land identified as a flowage easement is attached, if applicable. _____
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APPENDIX A

There are seventeen federally listed endangered and threatened or proposed endangered species that are associated with specific aquatic habitats in West Virginia. These include ten endangered freshwater mussels - clubshell (*Pleurobema clava*), fanshell (*Cyprogenia stegaria*), James spinymussel (*Pleurobema collina*), northern riffleshell (*Epioblasma torulosa rangiana*), pink mucket pearl mussel (*Lampsilis abrupta*), rayed bean (*Villosa fabilis*), sheepnose (*Plethobasus cyphus*), snuffbox (*Epioblasma triquetra*), spectaclecase (*Cumberlandia monodonta*), and tubercled-blossom pearl mussel (*Epioblasma torulosa torulosa*); two endangered plants - Harperella (*Ptilimnium nodosum*) and northeastern bulrush (*Scirpus ancistrochaetus*); one threatened plant - Virginia spiraea (*Spiraea virginiana*); two threatened crustaceans – Madison Cave isopod (*Antrolana lira*) and Big Sandy crayfish (*Cambarus callainus*); one endangered crustacean – Guyandotte River crayfish (*Cambarus veteranus*); and one endangered fish - diamond darter (*Crystallaria cincotta*). Nine other listed species not associated with specific aquatic habitats also occur in West Virginia. Those species are not addressed here.

Huntington District

1. Big Sandy Creek: Kanawha County: Snuffbox.
2. Bluestone River: Mercer and Summers Counties (Bluestone Gorge to slackwater of Bluestone Reservoir): Virginia spiraea.
3. Cedar Creek: Braxton and Gilmer Counties: Snuffbox.
4. Clear Fork: Wyoming County: Guyandotte River crayfish
5. Cove Creek: Monroe County: James spinymussel.
6. Elk River: Braxton, Clay, and Kanawha Counties (Sutton Dam to slackwater below Coonskin Park), including the lower one-half mile reaches of its tributaries Birch River, Blue Creek, and Laurel Creek: Clubshell, pink mucket pearl mussel, northern riffleshell, rayed bean, and snuffbox. The Elk River also contains the diamond darter (endangered). Critical habitat for this species is from King Shoals to slackwater below Coonskin Park.
7. Gauley River: Fayette and Nicholas Counties (Summersville Dam to Swiss): Virginia spiraea.
8. Greenbrier River: Greenbrier and Pocahontas Counties: Virginia spiraea.
9. Henry Fork: Calhoun and Roane Counties: Snuffbox.

10. Hughes River: Ritchie and Wirt Counties, including the lower one-half mile reach of its tributary Goose Creek: Snuffbox.
11. Kanawha River: Fayette, Kanawha, Mason, and Putnam Counties: Fanshell, pink mucket pearlymussel, sheepnose, spectaclecase, and tubercled-blossum pearlymussel.
12. Leading Creek: Gilmer and Lewis Counties, including the lower one-half mile reach of its tributary Fink Creek: Snuffbox.
13. Little Kanawha River: Braxton, Calhoun, Gilmer, Wirt, and Wood Counties, including the lower one-half mile reaches of its tributaries Leading Creek (Calhoun County), Pine Creek, Sand Fork, Slate Creek, Straight Creek, Tanner Creek, Tucker Creek, and Walker Creek: Clubshell and snuffbox.
14. Marsh Fork River including Dingess Branch and Millers Camp Branch and associated palustrine emergent and scrub-shrub wetlands: Raleigh County: Virginia spiraea.
15. McElroy Creek: Doddridge and Tyler Counties: Snuffbox.
16. Meadow River: Fayette, Greenbrier, and Nicholas Counties: Virginia spiraea.
17. Meathouse Fork of Middle Island Creek: Doddridge County, including the lower one-half mile reach of its tributary Toms Fork: Clubshell and snuffbox.
18. Middle Island Creek: Doddridge, Pleasants, and Tyler Counties, including the lower one-half mile reaches of its tributaries Arnold Creek, Bluestone Creek, Buckeye Creek, Indian Creek, McKim Creek, Point Pleasant Creek, and Sancho Creek: Clubshell and snuffbox.
19. New River (Lower): Fayette County (Route 19 to Gauley Bridge): Virginia spiraea.
20. North Fork Hughes River: Ritchie and Wirt Counties, including the lower one-half mile reaches of its tributaries Addis Run, Bonds Creek, Devilhole Creek, and Gillespie Run: Snuffbox.
21. Ohio River: Cabell, Jackson, Mason Pleasants, Tyler, Wetzel, and Wood Counties: Fanshell, pink mucket pearlymussel, sheepnose, and snuffbox.
22. Pinnacle Creek: Wyoming County: Guyandotte River crayfish
23. Potts Creek and South Fork of Potts Creek: Monroe County: James spinymussel.
24. Reedy Creek: Roane and Wirt Counties: Snuffbox.

25. South Fork Hughes River: Doddridge, Ritchie, and Wirt Counties, including the lower one-half mile reaches of its tributaries Bone Creek, Indian Creek, Leatherbark Creek, Otterslide Creek, Slab Creek, and Spruce Creek: Clubshell and snuffbox.
26. Spring Creek: Roane and Wirt Counties: Snuffbox.
27. Steer Creek: Calhoun and Gilmer Counties: Snuffbox.
28. Sugar Creek: Pleasants County: Snuffbox.
29. Tug Fork River and tributaries including Dry Fork: McDowell and Mingo Counties: Big Sandy crayfish
30. West Fork Little Kanawha River: Calhoun, Roane, and Wirt Counties: Snuffbox.

Pittsburgh District

1. Back Creek: Berkeley County: Harperella.
2. Cacapon River: Morgan County: Harperella.
3. Dunkard Creek: Monongalia County: Snuffbox.
4. Fish Creek: Marshall County: Snuffbox.
5. Fishing Creek: Wetzel County: Snuffbox. Note – the mouth of Fishing Creek at the Ohio River is regulated by the Huntington District.
6. Hackers Creek (of the West Fork River): Harrison and Lewis Counties: Clubshell and snuffbox.
7. Potomac River: Morgan County (from the mouth of the Cacapon River to the mouth of Sleepy Creek): Harperella.
8. Sleepy Creek: Morgan County: Harperella.
9. West Fork River: Harrison, Lewis, and Marion Counties: Snuffbox.
10. Streams, springs, and wetlands connected to the groundwater system including caves, areas near sinkholes, and other groundwater/surface interfaces, from the Potomac River west to Opequon Creek, especially in the Rippon and Leetown Areas, and the Evitts Run Watershed: Jefferson and Berkeley Counties: Madison Cave isopod.
11. Wetlands: Berkeley and Hardy Counties: Northeastern bulrush.

Note 1: Applicants should ensure they are referencing the latest version of this appendix by contacting the United States Fish and Wildlife Service.

Note 2: Please also note that freshwater mussels which are not federally listed are protected and managed by the State of West Virginia, WVDNR. Non-listed freshwater mussels may occur in the streams listed above as well as additional streams throughout the State. For information on the distribution of freshwater mussel species and their protections contact the WVDNR by phone at (304) 637-0245.

Appendix B
WV Mussel Stream List

County	Stream	Stream Group
Barbour	Pleasants Creek	1
Barbour	Sandy Creek	1
Barbour	Teter Creek	1
Barbour	Laurel Creek	1
Barbour	Sugar Creek	1
Barbour	Laurel Run	1
Barbour	Buckhannon River	1
Barbour	Elk Creek	1
Berkeley	Potomac River	1
Berkeley	Mill Creek	1
Berkeley	Harland Run	1
Berkeley	Back Creek	1
Berkeley	Tilhance Creek	1
Berkeley	Mill Run	1
Boone	Coal River	1
Boone	Little Coal River	1
Boone	Mud River	1
Braxton	Elk River	2
Braxton	Strange Creek	1
Braxton	Birch River	1, 2(1/2)
Braxton	Little Birch River	1
Braxton	Rockcamp Run	1
Braxton	Wolf Creek	1
Braxton	Holly River	1
Braxton	Little Kanawha River	2
Braxton	Knawls Creek	1
Braxton	Cedar Creek	2
Braxton	Oil Creek	1
Braxton	Saltlick Creek	1
Braxton	Tom Hughes Fork	1
Braxton	Left Fork Steer Creek	1
Braxton	Right Fork Steer Creek	1
Brooke	Ohio River	3
Brooke	Buffalo Creek	1
Brooke	Castleman Run	1
Brooke	Cross Creek	1
Brooke	Kings Creek	1
Cabell	Ohio River	4

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WV Mussel Stream List

County	Stream	Stream Group
Cabell	Beech Fork	1
Cabell	Guyan Creek	1
Cabell	Guyandotte River	1
Cabell	Barboursville Lake	1
Cabell	Charley's Creek	1
Cabell	Mud River	1
Cabell	Indian Fork	1
Cabell	Kilgore Creek	1
Calhoun	Little Kanawha River	2
Calhoun	Leading Creek	1, 2(1/2)
Calhoun	Yellow Creek	1
Calhoun	Pine Creek	1, 2(1/2)
Calhoun	Steer Creek	2
Calhoun	West Fork Little Kanawha River	2
Calhoun	Beech Fork	1
Calhoun	Left Fork West Fork Little Kanawha River	1
Clay	Elk River	2
Clay	Laurel Creek	1, 2(1/2)
Clay	Sycamore Creek	1
Clay	Leatherwood Creek	1
Clay	Lilly Fork	1
Clay	Beech Fork	1
Clay	Sand Fork	1
Clay	Flat Fork	1
Clay	Robinson Fork	1
Clay	Otter Creek	1
Clay	Grove Creek	1
Clay	Strange Creek	1
Doddridge	South Fork Hughes River	2
Doddridge	Middle Fork South Fork Hughes River	1
Doddridge	Middle Island Creek	2
Doddridge	McElroy Creek	2
Doddridge	Flint Run	1
Doddridge	Talkington Fork	1
Doddridge	Arnold Creek	1, 2(1/2)
Doddridge	Bluestone Creek	1, 2(1/2)
Doddridge	Meathouse Fork	2
Doddridge	Toms Fork	1, 2(1/2)
Doddridge	Indian Fork	1

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County	Stream	Stream Group
Doddridge	Buckeye Creek	1, 2 (1/2)
Fayette	Kanawha River	2
Fayette	Gauley River	1
Fayette	Meadow River	1
Fayette	Dogwood Creek	1
Fayette	Twentymile Creek	1
Fayette	New River	1
Gilmer	Little Kanawha River	2
Gilmer	Tanner Creek	1, 2(1/2)
Gilmer	Cedar Creek	2
Gilmer	Leading Creek	2
Gilmer	Cove Creek	1
Gilmer	Fink Creek	1, 2 (1/2)
Gilmer	Sand Fork	1, 2(1/2)
Gilmer	Steer Creek	2
Gilmer	Left Fork Steer Creek	1
Gilmer	Bear Fork	1
Gilmer	Right Fork Steer Creek	1
Grant	Mill Run	1
Grant	Patterson Creek	1
Grant	Rosser Run	1
Grant	Thorn Run	1
Grant	North Fork Patterson Creek, below dam	1
Grant	Middle Fork Patterson Creek	1
Grant	South Branch Potomac River	1
Grant	Brushy Run	1
Grant	Spring Run	1
Grant	South Fork Lunice Creek	1
Grant	Big Star Run	1
Grant	Little Star Run	1
Grant	North Fork Lunice Creek	1
Grant	Shell Run	1
Grant	Saltblock Run	1
Grant	North Fork South Branch	1
Grant	Jordan Run	1
Grant	Samuel Run	1
Grant	Broad Run North Fork	1
Grant	Moyer Run	1
Grant	High ridge Run	1

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WV Mussel Stream List

County	Stream	Stream Group
Greenbrier	Meadow River	1
Greenbrier	Laurel Creek	1
Greenbrier	Little Clear Creek	1
Greenbrier	Greenbrier River	1
Greenbrier	Muddy Creek	1
Greenbrier	Mill Creek	1
Greenbrier	Second Creek	1
Greenbrier	Howard Creek	1
Greenbrier	Anthony Creek	1
Greenbrier	Laurel Run	1
Greenbrier	Spring Creek	1
Hampshire	Potomac River	1
Hampshire	Little Cacapon River	1
Hampshire	Cacapon River	1
Hampshire	Edwards Run	1
Hampshire	Dillions Run	1
Hampshire	Hawk Run	1
Hampshire	Hiett Run	1
Hampshire	North River	1
Hampshire	Tearcoat Run	1
Hampshire	Cold Stream	1
Hampshire	South Branch Potomac River	1
Hampshire	Mill Run	1
Hampshire	Mill Creek	1
Hancock	Ohio River	3
Hancock	Tomlinson Run	1
Hancock	Kings Creek	1
Hancock	North Fork Kings Creek	1
Hardy	Potomac River	1
Hardy	Cacapon River	1
Hardy	Deep Gutter Run	1
Hardy	Moore's Run	1
Hardy	Waite's Run	1
Hardy	Trout Run	1
Hardy	Lost River	1
Hardy	Dutch Hollow Run (Sauerkraut Run)	1
Hardy	Brushy Hollow Run	1
Hardy	Three Springs Run	1
Hardy	Baker Run	1

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WV Mussel Stream List

County	Stream	Stream Group
Hardy	Mill Gap Run	1
Hardy	Lower Cove Run	1
Hardy	Upper Cove Run	1
Hardy	North River	1
Hardy	South Branch Potomac River	1
Hardy	South Fork South Branch	1
Hardy	Dumpling Run	1
Harrison	West Fork River	2
Harrison	Tenmile Creek upstream of Little Tenmile	1
Harrison	Jones Creek	1
Harrison	Rockcamp Run	1
Harrison	Jacob's Fork	1
Harrison	Salem Fork	1
Harrison	Elk Creek	1
Harrison	Brushy Fork of Elk Creek	1
Harrison	Gnatty Creek	1
Harrison	Lost Creek	1
Harrison	Isaacs Creek	1
Harrison	Corbin Branch	1
Harrison	Hackers Creek	2
Harrison	Kincheloe Creek	1
Harrison	Bingamon Creek	1
Harrison	Simpson Creek	1
Jackson	Pocatalico Creek (Left Fork)	1
Jackson	Middle Fork Pocatalico Creek	1
Jackson	Ohio River	4
Jackson	Little Mill Creek	1
Jackson	Mill Creek	1
Jackson	Cow run	1
Jackson	Parchment Creek	1
Jackson	Tug Fork	1
Jackson	Grasslick Creek	1
Jackson	Bear Fork	1
Jackson	Elk Fork	1
Jackson	Little Mill Creek	1
Jackson	Sandy Creek	1
Jackson	Crooked Fork	1
Jackson	Left Fork Sandy Creek	1
Jackson	Nesselroad Run	1

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WV Mussel Stream List

County	Stream	Stream Group
Jackson	Little Sandy Creek	1
Jackson	Little Pond Creek	1
Jefferson	Potomac River	1
Jefferson	Elks Run	1
Jefferson	Town Run	1
Jefferson	Shenandoah	1
Jefferson	Flowing Springs Run	1
Jefferson	Cattail Run	1
Jefferson	Evitts Run	1
Jefferson	Bullskin Run	1
Jefferson	Long Marsh Run	1
Kanawha	Kanawha River	4
Kanawha	Coal River	1
Kanawha	Little Coal River	1
Kanawha	Elk River	2
Kanawha	Blue Creek	2 1/2)
Kanawha	Big Sandy Creek	2
Kanawha	King Shoals Run	1
Kanawha	Little Sandy Creek	1
Kanawha	Pocatalico River	1
Kanawha	Pocatalico Creek (=Left Fork)	1
Lewis	Sand Fork	1
Lewis	Right Fork Little Kanawha	1
Lewis	Leading Creek	2
Lewis	Fink Creek	1
Lewis	West Fork River	2
Lewis	Hackers Creek	2
Lewis	Jesse Run	1
Lewis	Kincheloe Creek	1
Lewis	Freemans Creek	1
Lewis	Right Fork Freemans Creek	1
Lewis	Stonecoal Creek	1
Lewis	Right Fork Stonecoal Creek	1
Lewis	Right Fork West Fork River	1
Lincoln	Coal River	1
Lincoln	Little Coal River	1
Lincoln	Guyandotte River	1
Lincoln	Twomile Creek	1
Lincoln	Tenmile Creek	1

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WV Mussel Stream List

County	Stream	Stream Group
Lincoln	Fourteenmile Creek	1
Lincoln	Big Ugly Creek	1
Lincoln	Hart Creek	1
Lincoln	Mud River	1
Lincoln	Trace Fork	1
Lincoln	Buffalo Creek	1
Lincoln	Middle Fork Mud River	1
Lincoln	Big Laurel Creek	1
Logan	Guyandotte River	1
Logan	Big Creek	1
Logan	Big Huff Creek	1
Marion	Monongahela River	3
Marion	Prickett Creek	1
Marion	Whiteday Creek	1
Marion	Little Paw Paw Creek	1
Marion	Paw Paw Creek	1
Marion	Tygart Valley River	1
Marion	Laurel Run	1
Marion	Wickwire Run	1
Marion	West Fork River	2
Marion	Booths Creek	1
Marion	Corbin Branch	1
Marion	Hustead Fork	1
Marshall	Ohio River	3
Marshall	Fish Creek	2
Marshall	Whetsone Creek	1
Marshall	Valley Run	1
Marshall	WV Fk Fish Creek	1
Marshall	PA Fk Fish Creek	1
Marshall	Grave Creek	1
Marshall	Middle Grave Creek	1
Marshall	Wheeling Creek	1
Marshall	Turkey Run	1
Marshall	Enlow Fork	1
Marshall	Dunkard Fork	1
Mason	Kanawha River	4
Mason	Crooked Creek	1
Mason	Tenmile Creek	1
Mason	Thirteenmile Creek	1

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WV Mussel Stream List

County	Stream	Stream Group
Mason	Mudlick Fork	1
Mason	Sixteenmile Creek	1
Mason	Threemile Creek	1
Mason	Fivemile Creek	1
Mason	Ohio River	4
Mason	Eighteenmile Creek	1
Mason	Sixteenmile Creek	1
Mason	Flatfoot Creek	1
Mason	Crab Creek	1
Mason	Oldtown Creek	1
Mason	Tombleson Run embayment	1
Mason	Guyan Creek	1
McDowell	Tug Fork River	1
McDowell	Panther Creek	1
McDowell	Dry Fork	1
McDowell	Jacob Fork	1
McDowell	Clear Fork	1
Mercer	New River	1
Mercer	East River	1
Mercer	Pigeon Creek	1
Mercer	Bluestone River	1
Mercer	Camp Creek	1
Mineral	Patterson Creek	1
Mineral	Mill Run	1
Mineral	New Creek	1
Mingo	Tug Fork River	1
Mingo	Pigeon Creek	1
Mingo	West Fork Twelvepole Creek	1
Monongalia	Monongahela River	3
Monongalia	Dunkard Creek	2
Monongalia	Blacks Run	1
Monongalia	Whiteday Creek	1
Monongalia	Indian Creek	1
Monongalia	Days Run	1
Monongalia	Miracle Run	1
Monongalia	Right Branch Miracle Run	1
Monongalia	WV Fk Dunkard	1
Monongalia	North Fork WV Fork Dunkard Creek	1
Monongalia	Camp Run	1

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WV Mussel Stream List

County	Stream	Stream Group
Monongalia	South Fork WV Fork Dunkard Creek	1
Monongalia	Cobun Creek	1
Monroe	Potts Creek	2
Monroe	South Fork Potts Creek	2
Monroe	Cove Creek	2
Monroe	Indian Creek	1
Monroe	Greenbrier River	1
Monroe	Wolf Creek	1
Monroe	Second Creek	1
Morgan	Potomac River	1
Morgan	Sleepy Creek	1
Morgan	Meadow Branch	1
Morgan	Cacapon River	1
Nicholas	Strange Creek	1
Nicholas	Birch River	1
Nicholas	Anthony Creek	1
Nicholas	Gauley River	1
Nicholas	Meadow River	1
Nicholas	Anglins Creek	1
Nicholas	Collison Creek	1
Nicholas	Hominy Creek	1
Nicholas	Deer Creek	1
Nicholas	Muddlety Creek	1
Nicholas	Panther Creek	1
Nicholas	Taylor Run	1
Nicholas	Cherry River	1
Nicholas	Twentymile Creek	1
Ohio	Ohio River	3
Ohio	Wheeling Creek	1
Ohio	Little Wheeling Creek	1
Ohio	Middle Wheeling Creek	1
Pendleton	Little Fork	1
Pendleton	Long Run Blackthorn Creek	1
Pendleton	South Branch Potomac River	1
Pendleton	South Fork South Branch	1
Pendleton	Kettle Creek	1
Pendleton	North Mill Creek	1
Pendleton	Stony Creek	1
Pendleton	Kessner Run	1
Pendleton	South Mill Creek	1

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WV Mussel Stream List

County	Stream	Stream Group
Pendleton	North Fork South Branch	1
Pendleton	Shuckle Ford Run North Fork	1
Pendleton	Mill Run North Fork South Branch	1
Pendleton	Zeke Run	1
Pendleton	Brushy Run	1
Pendleton	Horsecamp Run	1
Pendleton	McIntosh Run	1
Pendleton	Gulf Run	1
Pendleton	Whites Run	1
Pendleton	Lower Gulf Run Whites Run	1
Pendleton	Upper Gulf Run Whites Run	1
Pendleton	Tanyard Gap Run	1
Pendleton	Redman Run	1
Pendleton	Dry Hollow	1
Pendleton	Briggs Run	1
Pendleton	Twin Run Briggs Run	1
Pendleton	Reeds Creek	1
Pendleton	Dry Run Reeds Creek	1
Pendleton	Long Hollow	1
Pendleton	Mill Run South Branch	1
Pendleton	Thorn Creek	1
Pendleton	Dry Run Thorn Creek	1
Pendleton	Whitethorn Creek	1
Pendleton	Moyer Run	1
Pleasants	Ohio River	4
Pleasants	Bull Creek	1
Pleasants	Cow Creek	1
Pleasants	French Creek	1
Pleasants	Middle Island Creek	2
Pleasants	McKim Creek	1,2(1/2)
Pleasants	Sugar Creek	1, 2(1/2)
Pocahontas	Williams River	1
Pocahontas	Greenbrier River	1
Pocahontas	Locust Creek	1
Pocahontas	Knapp Creek	1
Pocahontas	Brown Creek	1
Pocahontas	Clover Creek (Cloverlick Creek)	1
Pocahontas	Sitlington Creek	1
Pocahontas	Deer Creek	1

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WV Mussel Stream List

County	Stream	Stream Group
Pocahontas	North Fork Deer Creek	1
Pocahontas	West Fork Greenbrier River	1
Preston	Big Sandy Creek	1
Preston	Laurel Run	1
Preston	Little Sandy Creek	1
Preston	Saltlick Creek	1
Preston	Spruce Run	1
Preston	Buffalo Creek	1
Preston	Little Buffalo Creek	1
Preston	Wolf Creek	1
Putnam	Kanawha River	4
Putnam	Eighteenmile Creek	1
Putnam	Five and Twentymile Creek	1
Putnam	Buffalo Creek	1
Putnam	Hurricane Creek	1
Putnam	Mill Creek (Tackett Branch ?)	1
Putnam	Little Hurricane Creek	1
Putnam	Guano Creek	1
Putnam	Pocatalico River	1
Putnam	Charley's Creek	1
Putnam	Indian Fork	1
Putnam	Trace Fork	1
Raleigh	Marsh Fork	1
Raleigh	New River	1
Raleigh	Piney Creek	1
Randolph	Elk River	1
Randolph	Glady Fork	1
Randolph	West Fork Glady	1
Randolph	East Fork Glady	1
Randolph	Big RUn	1
Randolph	Horsecamp Run	1
Randolph	Gandy Creek	1
Randolph	Taylor Run	1
Randolph	Upper Pond Lick	1
Randolph	Tygart Valley River	1
Randolph	Becky Creek	1
Randolph	Laurel Run	1
Randolph	Little Laurel Run	1
Randolph	Leading Creek	1

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WV Mussel Stream List

County	Stream	Stream Group
Randolph	Chenoweth Creek	1
Randolph	Beaver Creek	1
Randolph	Mill Creek	1
Randolph	Riffle Creek	1
Randolph	Elkwater Fork	1
Randolph	Windy Run	1
Randolph	Right Fork Buckhannon River	1
Randolph	Left Fork Buckhannon River	1
Ritchie	Hughes River	2
Ritchie	Addis Run	2(1/2)
Ritchie	Gillespie Run	2(1/2)
Ritchie	North Fork Hughes River	2
Ritchie	Devilhole Creek	1,2(1/2)
Ritchie	Bonds Creek	1,2(1/2)
Ritchie	Hushers Run	1
Ritchie	Goose Creek	1
Ritchie	South Fork Hughes River	2
Ritchie	Middle Fork South Fork Hughes River	1
Ritchie	Indian Creek	1,2(1/2)
Ritchie	Leatherbark Creek	1,2(1/2)
Ritchie	Spruce Creek	1, 2(1/2)
Ritchie	Slab Creek	1,2(1/2)
Ritchie	Bone Creek	1,2(1/2)
Ritchie	Otterslide Creek	2 1/2)
Roane	Big Sandy Creek	1
Roane	Left Hand Creek	1
Roane	Pigeon Run	1
Roane	Granny Creek	1
Roane	Middle Fork Big Sandy Creek	1
Roane	Hollywood Trace Fork	1
Roane	Pocatalico River	1
Roane	Flat Fork	1
Roane	Cox Fork	1
Roane	Big Lick	1
Roane	Rush Creek	1
Roane	Cranes Nest Run	1
Roane	Reedy Creek	2
Roane	Left Fork Reedy Creek	1
Roane	Middle Fork Reedy Creek	1

Appendix B
WV Mussel Stream List

County	Stream	Stream Group
Roane	Spring Creek	2
Roane	Right Fork Spring Creek	1
Roane	Left Fork Spring Creek	1
Roane	West Fork Little Kanawha River	2
Roane	Henry Fork	2
Roane	Laurel Run	1
Roane	Beech Fork	1
Summers	New River	1
Summers	Indian Creek	1
Summers	Bluestone River	1
Summers	Little Bluestone River	1
Summers	Greenbrier River	1
Summers	Wolf Creek	1
Taylor	Tygart Valley River	1
Taylor	Pleasants Creek	1
Taylor	Corbin Branch	1
Taylor	Hustead Fork	1
Tucker	Clover Run	1
Tucker	Minear Run	1
Tucker	Horeseshoe Run	1
Tucker	Elklick Run	1
Tucker	Blackwater River	1
Tucker	Sand Run	1
Tucker	Freeland Run	1
Tucker	Club Run	1
Tucker	Glade Run	1
Tucker	Glady Fork	1
Tucker	Big Run	1
Tyler	Ohio River	4
Tyler	Middle Island Creek	2
Tyler	Sancho Creek	1,2(1/2)
Tyler	Point Pleasant Creek	1,2(1/2)
Tyler	Pursley Creek	1
Tyler	Elk Fork	1
Tyler	Indian Creek	1,2(1/2)
Tyler	McElroy Creek	2
Tyler	Sugar Creek	1
Upshur	Little Kanawha River	1
Upshur	Right Fork Little Kanawha	1

Appendix B
WV Mussel Stream List

County	Stream	Stream Group
Upshur	Buckhannon River	1
Upshur	French Creek	1
Upshur	Right Fork Buckhannon River	1
Upshur	Left Fork Buckhannon River	1
Upshur	Sand Run	1
Upshur	Hackers Creek	1
Upshur	Right Fork West Fork River	1
Wayne	Big Sandy River	1
Wayne	Tug Fork River	1
Wayne	Mill Creek	1
Wayne	Ohio River	4
Wayne	Twelvepole Creek	1
Wayne	Beech Fork	1
Wayne	West Fork Twelvepole Creek	1
Wayne	East Fork Twelvepole Creek	1
Webster	Elk River	1
Webster	Laurel Creek	1
Webster	Back Fork Elk River	1
Webster	Sugar Creek	1
Webster	Big Run	1
Webster	Laurel Run	1
Webster	Birch River	1
Webster	Gauley River	1
Webster	Williams River	1
Webster	Right Fork Little Kanawha	1
Wetzel	Ohio River (ES downstream of Hannibal Dam)	4
Wetzel	Fishing Creek	2
Wetzel	Little Fishing Creek	1
Wetzel	South Fork Fishing Creek	1
Wetzel	North Fork Fishing Creek	1
Wetzel	Proctor Creek	1
Wetzel	WV Fork Fish Creek	1
Wetzel	Sugar Run	1
Wetzel	Long Drain Creek	1
Wirt	Little Kanawha River	2
Wirt	Standingstone Creek	1
Wirt	Tucker Creek	1,2(1/2)
Wirt	Reedy Creek	2
Wirt	Right Reedy Creek	1

Appendix B
WV Mussel Stream List

County	Stream	Stream Group
Wirt	Spring Creek	2
Wirt	Straight Creek	1,2(1/2)
Wirt	Hughes River	2
Wirt	North Fork Hughes River	2
Wirt	Goose Creek	1,2(1/2)
Wirt	West Fork Little Kanawha River	2
Wood	Little Kanawha River	2 (4 mouth)
Wood	Walker Creek	1, 2(1/2)
Wood	Slate Creek	2 1/2)
Wood	Worthington Creek	1
Wood	Tygart Creek	1
Wood	Stillwell Creek	1
Wood	Ohio River	4
Wood	Little Sandy Creek	1
Wood	Little Pond Creek	1
Wood	Pond Creek	1
Wood	Lee Creek	1
Wood	Middle Fork Lee Creek	1
Wood	South Fork Lee Creek	1
Wood	North Fork Lee Creek	1
Wood	Bull Creek	1
Wyoming	Guyandotte	1
Wyoming	Indian Creek	1
Wyoming	Big Huff Creek	1
Wyoming	Clear Fork	1
Wyoming	Laurel Fork	1

Note 1: Stream Group 2(1/2) indicates that only the downstream most 1/2 mile of the stream is considered a Group 2 and must be surveyed no matter what the watershed size. If it is listed as Group 1, 2(1/2) then the rest of the stream is considered as Group 1.

Survey Type

1,2(1/2) = Stream is in Group 1 except for the lower 1/2 mile which is Group 2.

Note 2: Applicants should ensure they are referencing the latest version of this appendix by contacting the West Virginia Division of Natural Resources.

