

***Hydropower Project License Summary***

***KANAWHA RIVER, WEST VIRGINIA***

WINFIELD HYDROELECTRIC PROJECT (P-1290)

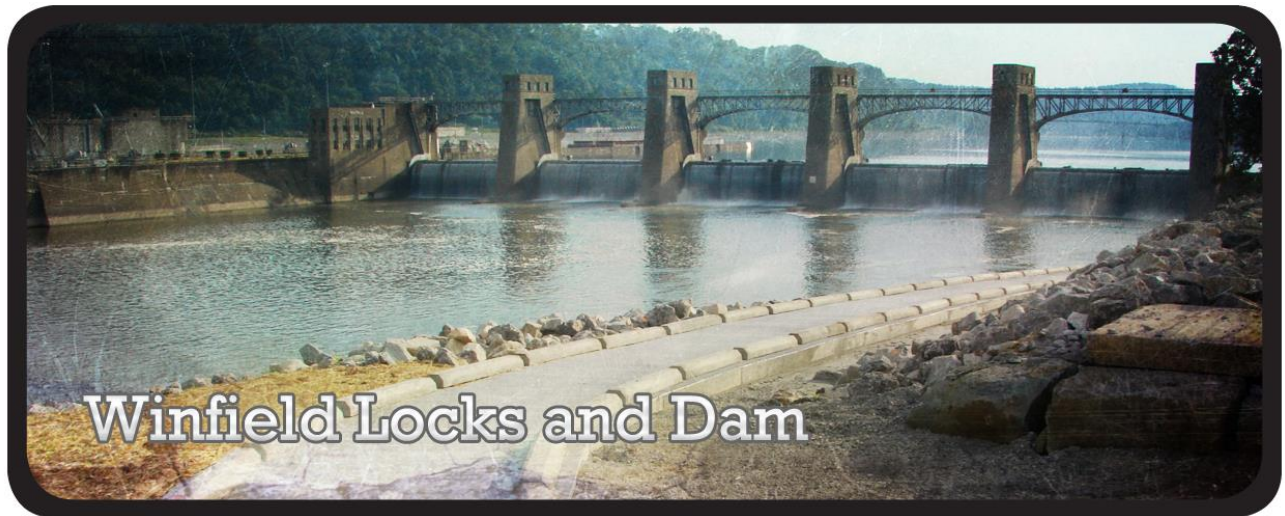


Photo: US Army Corps of Engineers

*This summary was produced by the*

Hydropower Reform Coalition

*and*

River Management Society

## **KANAWHA RIVER, WV**

### WINFIELD HYDROELECTRIC PROJECT (P-1290)

#### ***DESCRIPTION:***

The Kanawha Hydroelectric project is owned by the Appalachian Power Company and located on the Winfield dam owned and operated by the US Army Corps of Engineers. The 38-foot high Winfield dam is a gated dam with six roller gates spanning 100 ft between piers and consisting of three locks. This project is operated in conjunction with the upstream London-Marmet project, also owned by Appalachian Power and located on the London and Marmet dams owned by the US Army Corps of Engineers.

#### **A. SUMMARY**

1. License application filed: January 31, 2012
2. License Issued: January 31, 2014
3. License expiration: January 31, 2064
4. Capacity: 14.76 MW
5. Waterway: Kanawha River
6. Counties: Putnam County
7. Licensee: Appalachian Power Company (Appalachian)
8. Licensee Contact: Teresa P. Rogers  
Appalachian Power Company  
Hydro Generation Dept.  
P.O. Box 2021  
Roanoke, VA 24012  
Tel: 540-985-2441  
Email: tprogers@aep.com
9. Project Website: <http://www.kanawhahydro.com/>
10. Project area: The project occupies 8.25 acres of federal lands administered by the Corps
11. Project Facilities:

The project uses the Winfield Lock and Dam located at River Mile 31.1 on the Kanawha River. The project consists of:

  - a. a forebay area protected by a 410-foot-long log boom
  - b. screened intake structures
  - c. a concrete powerhouse integral to the dam containing three turbine-generator units with a total installed capacity of 14.76 MW
  - d. a tailrace 410 feet long
  - e. the Winfield substation containing a generator step-up bank of three transformers and three auxiliary transformers, and
  - f. two 69-kilovolt (kV) transmission lines, one of which is a 5.7-mile-long line terminating at the Teays substation, and the other a 3.7-mile-long line terminating at the Bancroft substation.

## **B. IMPORTANT PROVISIONS AND REQUIREMENTS IN LICENSE**

The license requires the project to be operated in run-of-river mode in order to protect aquatic resources and water quality of the Kanawha River.

The license requires Appalachian to file the following plans for Commission approval:

- Operation Compliance Monitoring Plan
- Avian Protection Plan
- Recreation Plan, and
- Programmatic Agreement and Historic Properties Management Plan

The license includes the following conditions and provisions.

### **1. Operation** [Reference: License Articles 304 and 401]

The license requires Appalachian to operate the Winfield project in a run-of-river mode. To ensure the operation, the license requires Appalachian to file by August 1, 2014 an operating plan approved by the Army Corps of Engineers. The Plan shall describe the following:

- the designed mode of hydropower operation,
- impoundment flow diversion and regulation requirements for operation of the Corps' project during construction, as established by the Corps, and
- integration of the operation of the hydroelectric facility into the Corps' Emergency Action Plan.

### **2. Water Quality** [Reference: Appendix A- West Virginia Water Quality Certification]

The Water Quality Certification issued by WV Department of Environmental Protection (WVDEP) on July 30, 2013 requires Appalachian to monitor water entering the intakes downstream of the project after mixing. Appalachian shall monitor for Dissolved Oxygen (DO) and temperature from May 1 through October 31 and provide monitoring information to WVDEP.

### **3. Aviation Protection** [Reference: License Article 403]

The license requires Appalachian to file an avian protection plan by August 1, 2014 in consultation with US Army Corps of Engineers, US Fish and Wildlife Service, and WV Division of Natural Resources. The avian protection plan shall include:

- training of the licensee's staff to adequately identify and document instances of avian mortality due to electrocution by or collision with the project's electrical facilities
- a framework for reporting avian mortality to the relevant resource agencies; and
- provisions for the development and implementation of site-specific measures and practices to reduce bird mortality,

**4. Recreation** [[Reference: License Article 404]

As part of the Water Quality Certification, WV DEP requires Appalachian to install and maintain portable restrooms and trash receptacles at the Winfield Fishing Access site and to provide parking. The license requires Appalachian to file a recreational plan by August 1, 2014, that includes the following:

- a schedule for installing restroom and trashcan facilities
- a schedule for maintenance of the new and existing facilities
- a provision to operate and maintain the facilities over the term of the license, and
- a discussion of how the needs of the disabled were considered in the planning and design of the facilities.

**5. Programmatic Agreement and Historic Properties Management** [License Article 405]

The license requires Appalachian to implement the “*Programmatic Agreement Between the Federal Energy Regulatory Commission and the West Virginia Historic Preservation Officer for Managing Historic Properties that May be Affected by Issuing a New License to Appalachian Power Company for the Continued Operation of the Winfield Hydroelectric Project in Kanawha and Putnam Counties, West Virginia (FERC No. 1290-012)*,” executed on July 18, 2013. Pursuant to the programmatic agreement, Appalachian shall file a Historic Properties Management Plan (HPMP) by January 31, 2015.

**C. MAP**

There are two convenient ways to become familiar with this project on the Hydropower Reform Coalition website, [www.hydroreform.org](http://www.hydroreform.org).

- Go directly to the project <http://www.hydroreform.org/projects/winfield-p-1290>
- To understand the geographical context of the project, visit the *On Your River* section of the site. This link (<http://www.hydroreform.org/on-your-river/East>) will take you to the section for rivers in the East. Zoom in toward Southwest West Virginia until you see five markers. Winfield project is the marker northwest of Charleston.