John Smith (WSP Project Manager) <u>September 2, 2020</u> (Date Summary Completed)

Brookfield Power Piney & Deep Creek LLC (Applicant Name) GA1992S009/09 (File No.)

## IMPACT ANALYSIS SUMMARY

## I. REASONABLENESS OF THE AMOUNT OF WATER REQUESTED IN RELATION TO THE ANTICIPATED LEVEL OF USE DURING THE PERMIT PERIOD.

The permittee has applied to increase an existing allocation from an annual average of 94,000,000 gallons per day (gpd) to 128,000,000 gpd. There is no proposed change to the maximum daily withdrawal of 420,000,000 gallons. The reason for the requested average annual increase is to account for higher flow volumes into Deep Creek Lake during years of high precipitation recorded since the original permit was issued in 1994. Previous years have documented the need to release more than an annual average of 94,000,000 gpd (94 MGD) in order to maintain lake levels in the Rule Band. Previous years above 94 MGD are 1996 (128 MGD), 2003 (113 MGD) and 2018 (122 MGD). Water will be withdrawn from Deep Creek Lake and used for the operation of the Deep Creek Station hydroelectric facility. The project is located at Deep Creek Lake and the withdrawal point is north of the Deep Creek Lake Dam, about three miles west of Thayerville, Garrett County, Maryland. The requested quantities are reasonable for the proposed use, as they have previously been documented to be needed.

## II. REASONABLENESS OF THE IMPACT OF THE REQUESTED WITHDRAWAL ON THE RESOURCE.

Permit GA1992S009(08) was reviewed extensively by many stakeholders and MDE and some changes are incorporated into the new permit GA1992S009(09). The changes are expected to have a more beneficial impact on the natural resources by: minimizing adverse temperature impacts for the cold water fishery in the Youghiogheny River; increasing summer dissolved oxygen levels in wicket gate leakage water discharged to the Youghiogheny River; reducing the allowable period of high water above the upper rule band; and identifying good practices for the permittee to follow to ensure the best opportunity for maintaining sufficient water in the lake through the warm weather recreation season.

## III. REASONABLENESS OF THE IMPACT OF THE REQUESTED WITHDRAWAL ON OTHER USERS OF THE RESOURCE.

The Administration has reviewed surface water appropriations in Garrett County. Appropriations directly from the lake will not be adversely affected by this permit renewal as the rule band elevations are unchanged. Two appropriators in Garrett County currently have no fixed point of withdrawal will similarly be unaffected by this renewal. There is one downstream appropriator on the Youghiogheny River and their withdrawal is protected by the minimum flow requirement in this permit which has not changed from the previous version.

Please see the September 2, 2020 Water Supply Program document responding to comments on this permit application for an explanation on how the permit addresses impacts to different stakeholders who benefit from the use of Deep Creek Lake and the withdrawals authorized by this permit.