MEMORANDUM

To: Board of Hudson River - Black River Regulating District

From: Robert S. Foltan, P.E., Chief Engineer

CC: File

Date: 07/6/2016 (for the July 12, 2016 Board Meeting)

Re: Black River Area Apportionment – Supplement Memo

This memorandum details the origin and application of "proportion of flow" values used within the table "Proportion of Benefit" included in Attachment D of the Black River Area Apportionment memorandum dated June 30, 2016.

Origin of Proportion of Flow Values

In some situations on the Black River two or more dams form the impoundment used to generate power at a particular location on the Black River. Typically, these "co-located" dams are owned by different companies and, in terms of power generation, operate independently of each other. The current Black River Assessment recognizes that regulated flow, and therefore the "benefit derived," is proportional distributed among the several dams and generating facilities at the "co-located" dams sites. Conversely, the benefit derived at sites with a single owner or which contain a single dam do not require a proportional distribution of benefit and receive one-hundred percent of the flow regulation benefit at the site. This proportional distribution was established by the Board as part of a previously approved Black River apportionment and assessment.

In an effort to continue to recognize the proportional distribution of benefit derived by certain parcels at co-located sites, the "proportion of flow" values have been carried forward into the proposed Black River Apportionment and included in the table "Proportion of Benefit" found in Attachment D of the above referenced memorandum.

Application of Proportion of Flow Values

The "proportion of flow" values are used to discount the values of Actual Head Used at the benefitted parcel. This discounted value of Actual Head Used (ie. Flow Proportioned Head) is the basis for the calculation of Proportion of Benefit for each parcel as presented in the table "Proportion of Benefit" in Attachment D.