

## RESOLUTION FOR THE MINUTES

A RESOLUTION for the Minutes authorizing the Executive Director to enter into a specialized services contract with GHD for enhancements to the source code for the hydrodynamic model known as the Environmental Fluid Dynamics Code (EFDC).

WHEREAS, by Resolution No. 2017-4, DRBC recognized the importance of determining the appropriate designated aquatic life uses of the Delaware River Estuary and the water quality criteria necessary to protect these uses, as well as the importance of reaching these determinations through a collaborative process informed by technical studies and specialized scientific and engineering expertise; and

WHEREAS, also by Resolution No. 2017-4 the Commission recognized the need for a new water quality (eutrophication) model linked with a hydrodynamic model of the Delaware Estuary to assess the attainability of higher levels of dissolved oxygen; and

WHEREAS, the hydrodynamic model known as EFDC and the water quality model known as the Water Quality Analysis Simulation Program (WASP), both of which are supported by the United States Environmental Protection Agency (EPA), were selected to be used in this effort; and

WHEREAS, the DRBC staff have identified the need for validation of certain subroutines and enhancements to the source code for the EFDC hydrodynamic model to apply selective model options to the Delaware Estuary and to seamlessly link EFDC with the WASP model; and

WHEREAS, GHD is uniquely qualified to provide the specialized services required for validation and enhancement of the EFDC model code, including among other superb qualifications, the firm's:

- multi-decade long experience in enhancement of the EFDC hydrodynamic code;
  - in-depth knowledge of the requirements for linking EFDC and WASP models; and
  - close working relationships with the current WASP water quality model developer;
- and

WHEREAS, the success of the estuary designated use project as a whole depends upon the successful development of linked hydrodynamic and water quality models within a compressed period of time; now therefore,

BE IT RESOLVED by the Delaware River Basin Commission that:

1. The Executive Director is hereby authorized to enter into an agreement with GHD to provide technical support to the Commission for enhancement of the EFDC hydrodynamic model code.

2. The value of the agreement is not to exceed \$20,000 or the amount awarded to the Commission or allocated by it for this purpose.

3. In accordance with Section 14.9(5) of the Compact, the competitive bidding provisions of the Compact are hereby waived in view of the specialized and professional nature of the services to be provided.

This resolution shall take effect immediately.

ADOPTED: June 12, 2019