

Governance of the Hudson River Environmental Conditions Observing System (HRECOS)

Approved by: HRECOS Managers (see attached) **Date created:** October, 2011

Section IV Addendum: October 4th, 2013

Section III Amendment: May 21st, 2018

Approval: By signing this agreement, the individuals identified below agree to become members of a HRECOS Management Team and to abide by the governance principles and practices described herein.

Margaret Novak, Date _____
NYS Department of Environmental Conservation – Division of Water

Simon Litten, Date _____
Mohawk River Research Center

Frances Dunwell, Date _____
NYS Department of Environmental Conservation – Hudson River Estuary Program

Chuck Nieder, Date _____
Hudson River Environmental Society

Stuart Findlay, Date _____
Cary Institute of Ecosystem Studies

Gary Wall, Date _____
US Geological Survey

Alan Blumberg, Date _____
Stevens Institute

Wade McGillis, Date _____
Lamont Doherty Earth Observatory

Sarah Fernald, Date _____
Hudson River National Estuarine Research Reserve

Clay Hiles, Date _____
Hudson River Foundation

The signed copy of this page is held by the HRECOS Coordinator.

I. INTRODUCTION

The Hudson River Environmental Conditions Observing System (HRECOS) was established in 2008 to provide geographically distributed, high frequency, real-time data for the Hudson River Estuary. HRECOS is currently managed by a consortium of partners from the government and research communities. This document, unanimously endorsed by the current HRECOS consortium, describes the governance plan for HRECOS.

Need for a Formal Governance Structure

Ocean observing systems comprised of networks of observations, data management, analyses and product development are being implemented around the U.S. as part of the Integrated Ocean Observing System (IOOS), and specific to the Mid-Atlantic Region as part of the Mid-Atlantic Regional Coastal Ocean Observing System. The goal of these observation systems is to systematically acquire and disseminate data and information on past, present, and future states of the waters in the nation's Exclusive Economic Zone to meet the following societal needs:

- Improve predictions of climate change and weather and their effects on coastal communities and the nation
- Improve the safety and efficiency of maritime operations
- Mitigate the effects of natural hazards more effectively
- Improve national and homeland security
- Reduce public health risks
- Protect and restore healthy coastal ecosystems more effectively
- Enable the sustained use of ocean and coastal resources

Within the Mid-Atlantic Region, HRECOS is emerging as an active organization of data users and data providers dedicated to the creation of integrated observation, data management, and distribution systems to provide products and information for commercial, management, recreational, education, scientific, regulatory, safety, hazard protection, and restoration needs of the Hudson River Estuary. HRECOS is being developed to conform to the standards of regional and national IOOS systems, so that it can become an integral part of these larger observing networks. HRECOS requires a governance structure in order to formally participate in the larger regional and national IOOS associations and also to meet the needs of its local estuary community.

II. PURPOSE AND OBJECTIVES

A. Purpose

This document describes the governance (organizational and operational structure) of HRECOS. Signatories to this document commit to this governance, the objectives defined below, and the operational outcomes defined through 2013.

B. Objectives

The goal of HRECOS is to provide data and data products for the Hudson River Watershed as guided by users, in a convenient and uniform manner, and in accordance with sound scientific practices. HRECOS is to deliver these products by managing and supporting data measurements, transmission, protocols, analysis methods, modeling, and communications.

HRECOS objectives include:

1. Identify and address the needs of those that use, depend on, study, and manage the aquatic environment and resources of the Hudson River Estuary and its watershed;
2. Build upon and improve the existing monitoring and observing activities and capacities on the Hudson River estuary;
3. Improve the capacity of governmental and research entities to manage river and estuarine resources and to understand the ecosystem;
4. Provide a backbone of basic monitoring datasets and products necessary for applied research, modeling, and future technological innovation;
5. Provide government, policy makers, and the public with timely datasets and data products to guide decision making; and
6. Support the use of scientific data and real time information in educational settings.

HRECOS seeks to meet these objectives cost effectively through the voluntary collaboration of partners who can provide equipment, expertise, and support services that create greater efficiencies and a larger program impact than would be possible if each operated independently.

III. ORGANIZATIONAL STRUCTURE AND PROCEDURES

o Overview

The HRECOS Governance will consist of a Management Team, Partners and Users. The Management Team, drawn from the pool of HRECOS Partners, will primarily be responsible for defining HRECOS projects to:

- o ensure that HRECOS data are relevant to the multiple needs of the user community
- o facilitate the expansion of the capacity and relevance of the system and
- o integrate with emerging regional, national and international IOOS networks.

The Management Team will be advised by HRECOS Partners and Users. The Partners will consist of those individuals and organizations that contribute funding or in kind services to the HRECOS network. The Users are those individuals and organizations who actively use HRECOS and advise on ways to make it more useful in meeting societal needs. HRECOS Staff coordinate communications and implement or assist with HRECOS projects. Once every five years, the system is reviewed by a team of Independent Reviewers.

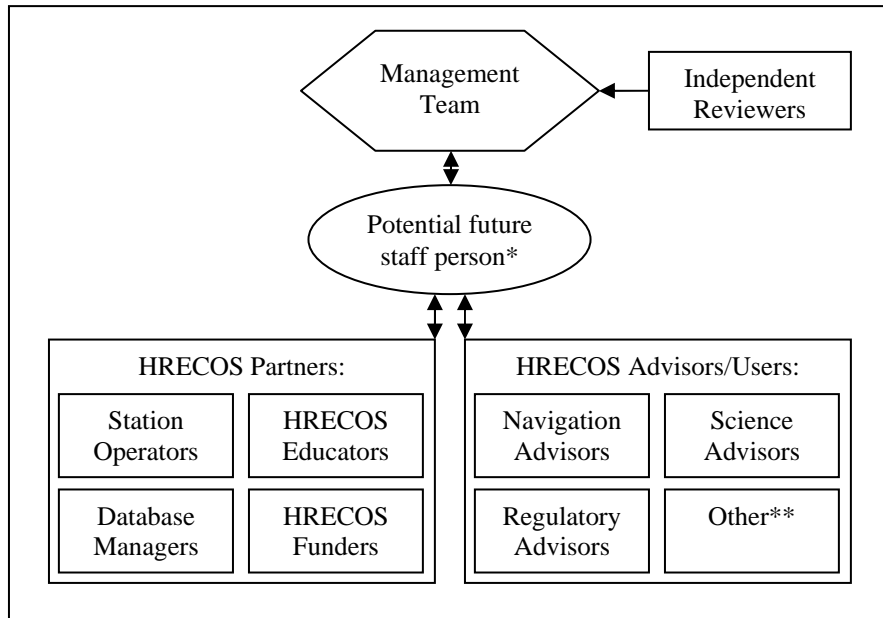


Figure 1: Conceptual layout of the governance structure of the Hudson River Environmental Conditions Observing System. * Coordination services are currently being provided by NYSDEC through a cooperative project with NEIWPC. The coordinator serves at the pleasure of NEIWPC and does not report to the Management Team. ** “Other” users include but are not limited to recreational and educational users

B. Transition to this structured governance

The current HRECOS voluntary collaboration comprises ten (10) individuals reflecting diverse public and private, federal, state, nonprofit, research, and academic interests who joined together to facilitate voluntary collaboration to achieve the goals and objectives outlined above.

The participation of the ten founding HRECOS members will now be more formally structured under this governance agreement into a HRECOS Management Team. Any founding HRECOS member who cannot participate on the HRECOS Management Team because of legal, time, or other constraints, hereafter will be a HRECOS Partner.

Each founding HRECOS consortium member who signs this document agrees to the governance described herein, and its organizational and representative membership status.

C. HRECOS Management Team and Their Responsibilities

Duties

All decisions concerning the operation of HRECOS will be made by or under the authority of the HRECOS Management Team. Operating decisions include but are not limited to the approval of the HRECOS Project Plan and approval of eligible HRECOS projects for inclusion in the network. The primary responsibility of this governance group will be to ensure that HRECOS data are relevant to the multiple needs of the user community, including provisions for quality assurance/quality control. Each member of the Management Team retains sole discretion and control over its own contribution of funds and services to the HRECOS system.

Number and Qualifications of Management Team Members

The Management Team will consist of no fewer than five (5) and no more than twelve (12) managers. At any time, the members of the management team must include experts in the following fields: high frequency water quality monitoring and interpretation, high frequency weather monitoring, near-real time reporting, database management, forecasting and modeling, ecosystem-based management applications of real-time data, research and educational applications of real-time data, and/or funding opportunities for integrated observing systems. Any person who supports the purposes of HRECOS, who is willing to commit the time and energy to implement HRECOS' recommendations, and who is willing to undertake the duties of a manager and to abide by the HRECOS Quality Management Plan is eligible to become a manager.

Quarterly and Special Meetings

The Management Team will meet at least quarterly. Special meetings may be called by any two managers. Notice of the quarterly or special meetings shall be given by the HRECOS Coordinator at least ten (10) days in advance by e mail or written notice delivered personally or mailed to each manager.

Manner of Acting

The Management Team will always strive to achieve a consensus. If this is not possible, any act or decision done or made by the managers shall require a two-thirds majority vote (67%). A manager may participate in a decision by conference call, email or similar communication equipment. Managers may not vote by proxy. Actions or decisions may be taken or made without a meeting if written consent is provided by a majority of the managers.

Good Standing

A member in good standing is one who regularly and professionally participates in HRECOS affairs. A member can lose good standing if he/she repeatedly fails to participate in the above manner in HRECOS affairs that relate directly to his or her interests and membership status. In such cases, the member organization and its representative will be contacted by the HRECOS Coordinator to resolve membership standing.

Removal from Office

Any manager may be removed at a Management meeting called expressly for such purpose. A majority vote (67%) of all managers shall be sufficient to remove any or all managers, with or without cause.

Filling Vacancies and Adding New Managers

An individual can join the HRECOS Management Team or fill vacancies using the following procedure:

- The individual must already be a HRECOS Partner and be willing to commit to all the goals and objectives of the HRECOS network;
- The individual must have the required professional knowledge and experience to actively participate in HRECOS;
- A proposed representative who has the required professional knowledge and experience is nominated by a current HRECOS Manager in good standing and the nomination is seconded by another Manager in good standing; and
- The nomination is approved by a two-thirds majority vote (67%) of all HRECOS Managers in good standing by voice, paper, or electronic voting conducted within three full business days after the day of nomination or as part of a scheduled meeting of the HRECOS Management Team.

D. HRECOS Staff

HRECOS operates as a voluntary collaboration of partners. As such it currently has no staff which directly reports to the Management Team. Coordination services in support of the partnership are currently provided by NYSDEC as part of its contribution to the collaboration.

Currently, the “HRECOS Coordinator” is an employee of the New England Interstate Water Pollution Control Commission pursuant to a cooperative project with NYSDEC. The coordinator is selected and supervised by NEIWPCC in partnership with NYSDEC and provides assistance to HRECOS by:

- coordinating and communicating with the HRECOS Partners and Users;
- implementing certain projects;
- developing semiannual project plans and list of priorities to build the system capacity;
- coordinating quality control, raising public awareness;
- seeking funding opportunities; and
- serving as liaison with federal agencies and other regional observing systems.

It is envisioned that at some future time, there could be a staff member who would be hired by, report to and be supervised by the Management Team.

E. HRECOS Partners

The HRECOS Partners are those individuals and organizations who contribute time, funding, and/or resources such as equipment or database management to the HRECOS network. They are generally categorized into Station Operators, HRECOS Educators, Database Managers, and active HRECOS Funders.

Database Managers	Cooperate to manage the HRECOS Database.
HRECOS Educators	Apply the HRECOS data in educational settings.
Station Operators	Operate HRECOS stations according to the established standards.
HRECOS Funders	Provide funding to sustain or enhance the HRECOS network.

The HRECOS Coordinator and one or more HRECOS Managers meet with the HRECOS Partners at least biannually to discuss any suggestions or concerns for the purpose of improving the usefulness of HRECOS for its defined uses and societal benefits.

F. HRECOS Users

The HRECOS Users are those individuals and organizations who actively support and advise HRECOS to assure that the system is useful to for its intended uses. They are generally categorized into Navigation Advisors, Science Advisors, Regulatory Advisors, and Other users including but not limited to educational and recreational users.

The HRECOS Coordinator and one or more HRECOS Managers meet with each user group at least annually to discuss any suggestions or concerns.

G. Operational Mechanisms for Development – Reviews

In order to ensure that the HRECOS develops in a manner that is best suited for its user community, a system of reviews will be established for individual projects and the system as a whole.

Project Review:

Scientific and technical evaluations of proposed programs, products, or processes for HRECOS generally will be submitted for formal or informal review. In a formal review, the full HRECOS Management Team reviews, discusses, and votes to endorse (or not endorse) the item under consideration. In an informal HRECOS review, a subset of HRECOS representatives with appropriate expertise, are identified by the quorum to review the item under consideration and make recommendations. Should a project fail to gain endorsement of the HRECOS Managers, it will not be deemed to be part of HRECOS.

To be considered a part of the HRECOS collaboration, all projects, programs and processes must comply with the goals and objectives of HRECOS and be relevant to the multiple needs of the user community. Additionally, all projects must contribute funding or resources towards the general operation of the collaborative HRECOS network. The amount of funding or support provided shall be proportional to the relative use and impact on the network.

HRECOS System-Wide Project List

Twice annually, the HRECOS Management Team will formally review and approve a HRECOS “Project List,” which will identify priorities and proposals for sustaining and expanding HRECOS’ capacity to serve the needs of the user community and for integrating HRECOS into regional, national and international IOOS systems. Approval requires a two-thirds majority vote (67%). Approval of the Project List will be considered approval for implementation or fundraising by any HRECOS Manager for inclusion of a project in HRECOS for all proposed projects described within. The list will establish aspirational goals and projects for improvement and enhancement of the system, recognizing that individual Managers and partners might have opportunities to support some aspects of the system through their institutional capacities and providing a framework for that to occur. Managers must give notice to each other when implementing a project described in the Project Plan but are not required to gain a second vote of approval in order to proceed. Each HRECOS Manager and Partner retains sole discretion and control over its own contribution of funds and services to the HRECOS system.

HRECOS System Review: In the fifth year of the existence of HRECOS, a team of Independent Reviewers will undertake an analysis of the effectiveness of HRECOS’ prior and future activities. The Independent Reviewers will be selected by the HRECOS Management Team and may include members of state or federal agencies, institutions of higher learning, not-for-profit and for profit corporations, consortia, associations and partnerships. The Independent Reviewers must not receive or have received direct or indirect benefit from HRECOS operations or projects.

Addendum to:

“Governance of the Hudson River Environmental Conditions Observing System (HRECOS)”

Approved by: HRECOS Managers (signatures on file with HRECOS coordinator)
Date: October 2013

IV. DEFINING THE HRECOS STATION

A station must satisfy the following components to be part of the HRECOS network

- i. A station must transmit in near-real time
- ii. A station should record data year-round. In some special cases, due to safety and/or access concerns, this is not possible.
- iii. A station may collect surface water or river bottom measurements as long as the collection method complies with the current Quality Assurance Project Plan.
- iv. A station may collect weather data in compliance with the current Quality Assurance Project Plan but it is not a requirement.
- v. A station may be located anywhere within the Hudson River Watershed
- vi. All stations must be installed and maintained according to the current HRECOS Quality Assurance Project Plan.

Amendment to:

Governance of the Hudson River Environmental Conditions Observing System (HRECOS),

Section III. ORGANIZATIONAL STRUCTURE AND PROCEDURES

Date: May 21st, 2018

III. ORGANIZATIONAL STRUCTURE AND PROCEDURES

C. HRECOS Management Team and Their Responsibilities

Number and Qualifications of Management Team Members:

On May 21st, 2018, the management team voted via email to add 3 additional vacant slots to the pre-existing 12-person limit on the HRECOS management team, expanding the capacity to 15 sitting members. HRECOS has grown significantly since the original governance rules were set, so this will allow for increased capacity if an opportunity arises to help satisfy our strategic planning goals.