

2023 NOAA Hawaii Bay Watershed Education and Training (B-WET) Program

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NOTICE OF FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC)

Funding Opportunity Title: 2023 NOAA Hawaii Bay Watershed Education and Training (B-WET) Program

Announcement Type: Initial

Funding Opportunity Number: NOAA-NOS-OCM-2023-2007573

Federal Assistance Listings Number: 11.473, Office for Coastal Management

Dates: Full applications must be received by 6:59 p.m. Hawaii-Aleutian Standard Time (HST) on January 31, 2023.

Three informational webinars with the Program Officer will occur on Thursday, November 10, 2022 from 10:00 to 11:00 a.m.; Wednesday, November 16, 2022 from 12:00 to 1:00 p.m.; and Tuesday, December 6, 2022 from 1:00 to 2:00 p.m. HST. Webinar links and related teleconference information will be sent to interested applicants who sign up for an information session at <https://forms.gle/cv5Wk88GRHpvSszX9>.

Funding Opportunity Description: The NOAA Hawaii Bay Watershed Education and Training (B-WET) program is a federal funding opportunity that meets NOAA's mission of science, service, and stewardship. The Hawaii B-WET program supports a vision of a future where societies and ecosystems are healthy and resilient in the face of sudden or prolonged change. The purpose for this financial assistance is to support our communities by developing well-informed members of society involved in decision-making that positively impacts our coastal, marine, and watershed ecosystems in the Hawaiian Islands. This is a competitive opportunity for grants to assist in the development of new programs, encourage innovative partnerships among environmental education programs, and support geographically targeted programs to advance environmental education efforts that complement national and state school requirements. The Hawaii B-WET program plays a foundational role as an environmental education program that promotes locally relevant, experiential learning in the K-12 environment on Priority Content Areas such as Earth science, climate science, and indigenous local knowledge models for all sciences. Funded projects provide Meaningful Watershed Educational Experiences for students and professional development for teachers that support regional education and environmental priorities. More information about the B-WET program is online at <https://www.noaa.gov/office-education/bwet>.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

The NOAA Bay Watershed Education and Training (B-WET) program was established in 2002 to create environmentally literate students and teachers through education. Recognizing that an informed community is the key to sustaining the Nation's watersheds, in addition to both coastal and ocean environments, NOAA has developed B-WET programs in seven regions: California, Chesapeake Bay, Hawaii, Gulf of Mexico, New England, Pacific Northwest, and Great Lakes. The NOAA Office for Coastal Management - Pacific Islands in Honolulu administers the Hawaii B-WET program on behalf of the NOAA Office of Education and in partnership with the NOAA Office of National Marine Sanctuaries in Hawaii.

The goal of the Hawaii B-WET program is to support K-12 environmental literacy programs that provide students with Meaningful Watershed Educational Experiences (MWEEs) in Hawaii's ahupuaa and related professional development for in-service teachers, administrators, or other educators serving K-12 students. Individuals that have been educated about Earth's processes and long-term environmental trends can become effective problem solvers, informed future community leaders, and engaged decision-makers charged with managing Hawaii's limited island resources. Experiential learning techniques, such as those supported by the B-WET program, have been shown to increase interest in science, technology, engineering, and math, thus contributing to NOAA's obligations under the America COMPETES Act (33 USC 893a).

The NOAA B-WET program recognizes that support is needed to bridge the gap that has been created by the loss of revenue, the cancellation of programs, and the inequities that are being exacerbated by the COVID-19 pandemic. As a major contributor to environmental education programs, the NOAA B-WET program is committed to responding to the immediate needs of this pandemic and supporting these critical institutions that provide meaningful experiences for youth at all levels. While writing the grant application, ensure that all current federal, state (Department of Education), and City & County guidelines regarding COVID safety are followed during the time of the project implementation.

The MWEE framework is the backbone of all B-WET funded projects and regardless of the priority, must incorporate the MWEE in order to be successful. The definition of the MWEE that follows was created by the NOAA B-WET National program and is used by all seven B-WET regions throughout the country.

1. Defining the NOAA Meaningful Watershed Educational Experience

The Meaningful Watershed Educational Experience (MWEE) is a learner-centered framework that focuses on investigations into local environmental issues and leads to informed action. MWEEs are made up of multiple components that include learning both outdoors and in the classroom and are designed to increase environmental literacy by actively engaging students in building knowledge and meaning through hands-on experiences. In these experiences, the core ideas and practices of multiple disciplines are applied to make sense of the relationships between the natural world and society. MWEEs help connect students with their local environment and equip them to make decisions and take actions that contribute to stronger, sustainable, and equitable communities.

The MWEE consists of four essential elements and four supporting practices that build upon each other to create a comprehensive, student-centered learning experience. Throughout the MWEE, teachers provide structure, support, and encouragement as students use their curiosity and creativity to investigate and take action to address a local environmental issue. To support teacher implementation of MWEEs, B-WET has also included six characteristics that are recommended to be included in teacher professional development activities.

MWEEs are appropriate for all grade levels with content and practices growing in complexity and sophistication across the grades — starting with teacher-guided investigations and progressing to student-led inquiry. Using the MWEE framework helps educators create an engaging program to achieve their learning objectives (i.e., the knowledge, skills, and attitudes that students should be able to exhibit following instruction). Learning objectives should address academic standards, but might also include other objectives, such as teamwork, socio-emotional learning, and civic responsibility.

a. MWEE Essential Elements

The MWEE consists of four essential elements that describe “what students do:” Issue Definition, Outdoor Field Experiences, Synthesis and Conclusions, and Environmental Action Projects. These elements, together with the supporting practices, create a learner-centered framework that emphasizes the role of the student in actively constructing meaning from the learning experiences. The essential elements are not meant to be linear. In fact, some elements, such as Synthesis and Conclusions, occur repeatedly throughout the MWEE.

i. Issue Definition

During Issue Definition, students learn about an environmental issue by planning and conducting background research and investigations. An environmental issue is an environmental problem, often with observable phenomena, to which community members bring a variety of perspectives. To provide structure for their exploration of the issue, students focus on a driving question that is defined by the teacher. This question is the “big picture” question that sparks curiosity and organizes student inquiry and investigations, which ultimately informs environmental actions. It should be open-ended, relevant to students’ lived experiences, and meet learning objectives. To support youth voice and deepen the learning, students are actively involved in co-developing supporting questions with teachers to better understand the driving question and environmental issue.

To explore the driving and supporting questions, students gather information by making observations, finding and reading credible sources, talking to experts, and carrying out field investigations. Students also consider environmental policies and community practices and reflect on personal, stakeholder, and societal values and perspectives to develop a comprehensive picture of the root causes of the environmental issue.

ii. Outdoor Field Experiences

Students participate in multiple Outdoor Field Experiences to explore the driving question and strengthen their connection to the natural world. Within appropriate safety guidelines, students are actively involved in planning and conducting the field investigations, including developing supporting questions to explore the driving question in the field. Field experiences allow students to interact with their local environment and contribute to learning in ways that traditional classroom or laboratory settings may not. During field experiences, students can use their senses, scientific equipment, and technology to make observations, collect data or measurements, and conduct experiments necessary to answer their supporting questions and inform environmental action. Students who have opportunities to learn in, thrive in, and appreciate the outdoors can become informed and engaged champions for our natural resources.

Outdoor Field Experiences can take place on school grounds or at locations close to schools, such as streams or local parks. They can also take place at off-site locations such as state or national parks, wildlife refuges, marine protected areas, or nature centers that are often staffed by experts and may provide access to field equipment and facilities. A range of partners, including environmental educators, natural resource professionals, or trained volunteers, can help facilitate field experiences; however, they should be co-developed and co-taught with teachers so that field experiences support learning objectives. Teachers and partners should ensure an accessible outdoor learning environment for all participants,

including students with a range of physical, cognitive, emotional, and social abilities. They should also prepare students by providing information and discussing what students can expect to see, feel, or experience during their time outdoors to ensure students feel safe and comfortable during their field experiences.

iii. Synthesis and Conclusions

During Synthesis and Conclusions, students reflect on each experience and investigation in relation to the issue, and share their claims and conclusions with each other. Teachers should plan for this to occur regularly throughout the MWEE. This learning and frequent reflection provide the foundation for the development of claims and environmental action that address the driving question and connect to the environmental issue. Throughout this process, students should demonstrate understanding of their investigations and conclusions with their peers or the school community. This could involve multiple disciplines and a variety of formats including discussion, journaling, presentations, graphing, performing skits or songs, or creating art.

iv. Environmental Action Projects

As a result of their investigations, students identify solutions and develop Environmental Action Projects that directly address the issue within their school, neighborhood, or community. Students are actively engaged in and, to the extent possible, drive the decision-making, planning, and implementation of the action project. Teachers facilitate this process by forming groups, moderating, and answering questions. Students reflect on the value of the action and determine the extent to which it successfully addressed the issue.

This essential element allows students to understand that they personally have the power to bring about change by taking action to address environmental issues at the personal, community, or societal level. Taking action instills confidence in students and can contribute to students becoming environmental stewards in their communities.

Environmental Action Projects can take many forms and may fall into the following types:

- Restoration or Protection: actions that assist in the recovery or preservation of a watershed or related ecosystem that has been degraded, damaged, or destroyed. Examples include: plant or restore protective vegetation/trees; restore a local habitat; remove invasive plants; clean up litter at local beaches, parks, or school grounds; develop a school garden, natural history area, community garden, or other sustainable green space; install rain gardens to help manage stormwater.

- Everyday Choices: actions that reduce human impacts on watersheds and related ecosystems and offer ways to live more sustainably. Examples include: refuse/reduce/reuse/recycle; monitor and save water in the face of potential drought or reduction in water availability; compost food or yard waste; research and implement energy efficient strategies or energy alternatives at school and/or at home.
- Community Engagement: actions that inform others about how to address community-level environmental issues. Examples include: give presentations to local organizations; organize community events; record or broadcast public service announcements; share information on social media; post flyers in community; share posters at community events/fairs/festivals; mentoring.
- Civic Engagement: actions that identify and address issues of public concern. Students acting alone or together to protect societal values or make a change or difference in a student's school, neighborhood, or community. Examples include: present to school principal or school board; attend, speak, or present at town meetings; write to local or state decision makers or elected officials.

b. MWEE Supporting Practices

The MWEE also includes four supporting practices that describe “what teachers do,” along with their partners, to ensure successful implementation with students. The supporting practices are Teacher Facilitation, Learning Integration, Sustained Experiences, and Local Context.

i. Teacher Facilitation

MWEEs require that teachers support student learning for the duration of the MWEE, both inside and outside the classroom. Teachers balance roles of facilitation, direct instruction, and coaching to create a student-centered learning experience where the essential elements of the MWEE come together to support goals for learning and create opportunities for students to take active roles in the learning process. Teachers provide space for student choice and voice by creating learning experiences that center on what students value. Even when activities or lessons occur at partner sites or are primarily led by partners at the school, teachers should be actively engaged. Teachers should connect these experiences to prior learning, foster critical thinking, and lead reflection after the experience so, regardless of the facilitator, the entire MWEE experience feels cohesive to the students.

To support this level of engagement, teachers should have access to professional development opportunities that support their content knowledge, understanding of the MWEE framework, and confidence and intention to implement MWEEs independently (see Teacher MWEE Professional Development Characteristics for specifics).

ii. Learning Integration

The MWEE is an educational framework that helps teachers meet their learning objectives in an engaging way. MWEEs are not meant to be something “extra”, but rather a means of enriching lessons for deeper student learning while meeting academic standards. To achieve this vision, MWEEs should be embedded into the school curriculum to support goals for learning and student achievement. They can also provide authentic, engaging interdisciplinary learning that crosses traditional boundaries between disciplines. Finally, the MWEE essential elements can also be used by educators in out-of-school settings (for example, after school programs, clubs, or summer camps) to enrich activities and complement school-based programming.

iii. Sustained Experience

MWEEs rely on teachers to plan and implement a series of rich and connected learning opportunities where each essential element — from asking questions during Issue Definition through implementing Environmental Action Projects — builds upon and reinforces the others. To accomplish this, MWEEs are incorporated into a unit or multiple units, where learning happens both in and out of the classroom. This provides adequate time for students to not only reflect on the individual lessons and experiences, but also on how all of the elements cohesively come together. While an individual lesson may occur in one class period or field experience, that lesson or experience should be explicitly connected to the larger learning sequence of the MWEE.

iv. Local Context

MWEEs have teachers use the local environment and community as a context for learning that is relevant to students’ lives. Situating the MWEE within local contexts promotes learning that is rooted in the unique culture, history, environment, economy, literature, and art of a students’ school, neighborhood, or community. To enrich MWEEs, local resources (e.g. partners, expertise, field sites) should be incorporated. Partnerships, such as those with local community-based organizations, create opportunities for students to engage with members of their community of diverse cultures, values, and expertise that can create a more equitable and inclusive experience.

Emphasizing the local context enables students and teachers to develop stronger connections to, and appreciation for, their local environments and communities. This also enables students and teachers to explore how their individual and collective decisions affect their immediate surroundings and in turn affect larger ecosystems and watersheds.

c. Teacher MWEE Professional Development Characteristics

Professional development providers play a crucial role in preparing teachers to implement successful MWEEs with their students. Professional development that includes characteristics such as: relevant content; explicit modeling of educational frameworks; collaboration, feedback and modeling instruction such as student-centered teaching; adequate time for professional development including time for ongoing support; and offering participation incentives that teachers value leads to a variety of positive outcomes. Professional development should empower teachers to confidently and competently use the MWEE framework to support standards-based learning that aligns with local education agency initiatives. Teachers should gain confidence in the value of MWEEs and strategies for conducting them so that they will be able to implement MWEEs after the professional development has ended. To set teachers up for success, the following six overarching characteristics, informed by education research and evaluation results, are recommended for inclusion in professional development to support teachers implementing MWEEs.

i. Increases teachers' knowledge and awareness of environmental issues

Professional development facilitators should ensure that teachers have an adequate level of content knowledge in science and specific to their grade level and discipline to support their MWEE. The content knowledge should also be connected to the interactions between natural systems and social systems, including human impacts on local watersheds and larger Earth systems. Recognizing that environmental issues often include different perspectives and opinions about the environment, teachers must also experience and build skills that enable them to address these traditionally non-academic factors in their classrooms. When combined, this knowledge and these experiences often result in teachers who are more aware of, and more prepared for, the complexity of implementing MWEEs.

ii. Models MWEE framework

Professional development should also provide opportunities for teachers to understand the goals and rationale behind the MWEE as a framework for fostering learning and environmental stewardship. Facilitators of teacher professional development should utilize

the same techniques and experiences that teachers are expected to use with their students, such as hands-on Outdoor Field Experiences, critical thinking about environmental issues, and Environmental Action Projects.

iii. Includes collaboration, feedback, and models high-quality instruction

Effective professional development includes peer collaboration, time for teachers to experience, plan for, and practice model activities and lesson plans, and opportunities for reflection and feedback. Collaborative opportunities that include observing effective teaching practices and replicating these practices with expert instruction and feedback, can result in higher likelihood that teachers will apply these practices when implementing MWEEs. Such opportunities also foster exchanging ideas and create a collaborative atmosphere for changing the culture around adopting new teaching practices at multiple levels within a school system. In addition, when teachers experience high-quality instruction, such as active learning and student-centered inquiry, they are more likely to use high-quality instruction when implementing MWEEs with their own students.

iv. Allows for adequate instructional time and ongoing support

Professional development should be multi-day, occurring consecutively or over the course of several weeks or months and include time for ongoing support for teachers. Professional development facilitators should build in adequate time for the types of experience described above, including time to learn, practice, reflect upon, and design practices they learn during the professional development. Even in cases where teachers participate in robust multi-day workshops, such as summer or weekend courses, it is still essential that professional development providers have structures and opportunities in place for ongoing teaching support and enrichment. This can take the form of follow up meetings, web-based forums for communication and feedback, mentor teachers who can serve as points of contact, or teams of teachers from one particular school.

v. Offers appropriate incentives

Having appropriate incentives can increase participation in professional development programs. For example, teachers who participated in B-WET-funded professional development programs in the past reported that receiving a stipend or continuing education credits were the “most valuable” incentives enabling them to participate in those programs. While a variety of incentives can be offered to professional development program participants, it is clear that continuing education credits and stipends can enable participation in ways that other incentives might not.

vi. Meets jurisdictional guidelines and engages leadership

Each jurisdiction has established guidance and recommendations relevant to all forms of teacher professional development. When possible, professional development opportunities for MWEEs should adhere to guidelines set forth by state and/or local education agencies. Outreach and training opportunities for school administrators will also help ensure jurisdictional alignment and increase high level support for both environmental education and continuing teacher professional development for teachers.

d. Additional Required Components

i. NOAA place-based watershed framework: The project must describe and address the direct connection to the specific ahupuaa where activities will be conducted (Resource to identify the name of an ahupuaa- <http://www.kipukadatabase.com/>). The Hawaiian Islands are an excellent resource for environmental education and provide a multitude of “hands-on” laboratories where students can see, touch, hear, feel, and learn about the Earth processes and the dynamic interactions of different ecosystems within an ahupuaa. The islands’ complex, diverse, and unique ecosystems can be brought to life in the classroom through MWEEs. Refer to Section I.A.1 for the MWEE definition.

a) Ahupuaa knowledge: Native Hawaiian cultural knowledge should be incorporated into the student's educational experiences and professional development to enhance the participant’s understanding that nature and culture are interconnected. Experiences should demonstrate to participants that they play a role in supporting local action to care for their environment through community-based ahupuaa stewardship initiatives.

b) Ahupuaa stewardship: For many place-based community organizations, ahupuaa stewardship is a daily practice of restoration for future generations. Projects should include a plan for growing long-term partnerships with community organizations/networks to provide hands-on learning experiences for participants that deepen their understanding of contemporary ahupuaa management. Projects can focus on a specific environment within an ahupuaa (including marine environments), but applicants should demonstrate how the focus area fits within the greater concept of ahupuaa and broader community stewardship initiatives. These stewardship efforts should be sustainable to ensure continuity after the B-WET funding is completed. Please refer to Section I.A.1.d.iv. Partnerships for more information.

ii. NOAA Priority Content Areas: NOAA has identified three areas of interest for Fiscal

Year (FY) 2023 projects. Projects must include at least 1 of the 3 Priority Content Areas described below, and may include all three. In FY2023, NOAA is particularly interested in projects that highlight the Indigenous and Local Knowledge (ILK) and climate science areas:

a) Indigenous and Local Knowledge (ILK): The Hawaii B-WET program seeks applications for projects that provide opportunities for students and educators to immerse in indigenous, local, and traditional knowledge (e.g. ecological, social, and historical). These projects will use ILK as the foundation of program design, structure, content, and implementation. Projects should clearly state how these foundations are supplemented with Western science and should include an explanation of how STEM and science tools will be incorporated. The goal is to teach science that aligns with their ILK, which may also include the use of the indigenous language. Projects should support systemic and structural changes in education programs by creating quality ILK frameworks as models that can be replicated across the state. Examples of project deliverables as resources or curricula that support the use of ILK could include, but are not limited to, a MWEE framework that weaves in cultural components, creating then implementing a Hawaiian pedagogy, and/or designing a holistic evaluation inclusive of cultural perspectives. Cultural knowledge and understanding should be incorporated into the student (K-12) educational experiences or teacher professional development to enhance the participants' interaction and connection with their environment. Program pedagogy and methodology will include a detailed description of the cultural practices and processes that are incorporated into the lesson plans for students and/or teachers as well as the appropriate education standards.

b) Climate science: The Hawaii B-WET program seeks applications for projects that incorporate elements of climate science into programming that provide opportunities for students and educators to understand why climate studies are important and how learning climate science provides a basis for understanding climate change. The MWEE approach can be a direct means for students to develop climate knowledge, skills, and competencies to address climate change and climate impacts in their own communities. The K-12 education system is a well-positioned venue for instilling comprehensive knowledge, skills, competencies, and resilience around climate change, the most pressing economic, social and environmental issue of today. According to the 2021 Intergovernmental Panel on Climate Change (IPCC) report and the most recent National Climate Assessment (NCA, 2018), communities in the U.S. are experiencing changes in climate that are resulting in severe storms, flooding, hurricanes, extended drought, changes in ocean chemistry and sea level rise, presenting growing challenges to human health and safety, quality of life, and the rate of economic growth. Currently, educational institutions, researchers and policy makers are calling for climate science education that goes beyond knowledge acquisition and formal classroom teaching to efforts that reach audiences of all demographics and incorporate the

social, political, economic, and justice elements of climate change. Education has the power to help students develop meaningful personal connections to climate solutions, a sense of personal agency and empowerment, and ultimately impact their behaviors and decision-making in relation to climate (Kwauk, 2021; K12 Climate Action Commission, 2021). Projects should incorporate age-appropriate elements of climate change into programming. The MWEE educational framework can directly foster climate knowledge, skills, and competencies to address climate change, climate impacts, and the opportunities to contribute to climate solutions in their own communities.

c) Earth, ocean, and atmospheric sciences: The Hawaii B-WET program seeks applications for projects that provide opportunities for students and educators to engage in exploring and investigating Earth's dynamic processes. Projects should reflect a multi-disciplinary approach in the study of NOAA related sciences and the interaction of different ecosystems within an island ahupuaa, as well as long-term trends in average environmental conditions to support appropriate resource management, long-term sustainability, and local economies in both water-based and terrestrial-based activities.

iii. Experiences for all students/teachers: The Hawaii B-WET program is strongly committed to expanding the knowledge and participation of low income, historically marginalized, underrepresented, and underserved student populations in environmental education. It is crucial for all participants to have an understanding of and connection with their own environment, therefore all students should be provided an outdoor experience regardless of where they live or go to school. The Hawaii B-WET program anticipates that a substantial portion of the target audience served by funded projects will represent minority communities. Projects are strongly encouraged to develop meaningful and mutually-beneficial partnerships that honor the strengths of community organizations to directly address equity and inclusion.

iv. Partnerships: In order to be effective, sustainable, and equitable, environmental education must be integrated within organizations that understand and support the needs of their community. Project applications should include partnerships with Hawaii-based communities, organizations, schools, and/or school systems that will directly benefit from or contribute to the project. Applicants are strongly encouraged to develop meaningful and mutually-beneficial partnerships that honor the strengths of community organizations, which includes partnerships with cultural and/or community experts that will enhance the connection to the environment. In successful partnerships, organizations have shared goals and work together to share resources, communicate effectively, collaborate on decision-making, and competently engage members of diverse cultures and expertise. Adequate compensation should be provided for community-based organization partners and

community members for the effort they are contributing to the project. Signed letters of collaboration from each partner shall be submitted with the application package to demonstrate the level of commitment and involvement. Moreover, projects based on a NOAA-designated focus area should include a letter of collaboration from a NOAA office or lead site manager associated with the location.

v. Academic standards: Project applications should be aligned to academic standards and should indicate how the project will align with one or more of these benchmarks of education. The State of Hawaii has adopted the Next Generation Science Standards and the Hawaii Common Core standards as the benchmarks of quality and excellence in education. The Hawaii State Department of Education also has a department-wide framework called Na Hopena Ao, which is used to develop the skills, behaviors, and dispositions that are reminiscent of Hawaii's unique context, that honors the qualities and values of the indigenous language and culture of Hawaii

(<https://www.hawaiipublicschools.org/TeachingAndLearning/StudentLearning/HawaiianEducation/Pages/HA.aspx>). The Native Hawaiian Education Council, which was created under the Native Hawaiian Education Act, along with a committee of other Hawaiian education institutions, created Na Honua Maui Ola - Cultural Pathways for Culturally Healthy and Responsive Learning Environments. This is one example of a Hawaiian pedagogy that can be utilized for the NOAA Priority Content Area focusing on ILK. For more information, please see Research Supports Na Honua Maui Ola (http://www.olelo.hawaii.edu/olelo/documents/pdf/NHMO2_ResearchSupports.pdf), Na Honua Maui Ola- Hawaii Guidelines for Culturally Healthy and Responsive Learning Environments (<http://www.olelo.hawaii.edu/olelo/documents/pub/NHMO.pdf>), and Na Ala Ike- The Cultural Pathways (<http://www.olelo.hawaii.edu/olelo/documents/pdf/NHMO-2014-Poster-Pelaha.pdf>). In addition, the ocean literacy principles (<http://oceanliteracy.wp2.coexploration.org/>), climate literacy principles (www.climate.gov/teaching/essential-principles-climate-literacy/essential-principles-climate-literacy), and energy literacy principles (www.energy.gov/eere/education/energy-literacy-essential-principles-energy-education) present guidelines on information individuals and communities should know to have a better understanding of these Earth systems.

vi. Includes NOAA assets, including personnel and resources: MWEEs use NOAA assets, such as data, resources, expertise, or places. NOAA has a wealth of applicable products, data, and services as well as a cadre of scientific and professional experts who can enhance student experiences both in the classroom and in the field. These resources complement the educator's strengths and augment the educational resources. Additionally, NOAA personnel can serve as important role models for career choices and stewardship. For more on NOAA assets for education please see: NOAA Resource Collections

(<https://www.noaa.gov/education/resource-collections>), NOAA in your state (<https://www.legislative.noaa.gov/NIYS/>), NOAA in your backyard (<https://www.noaa.gov/education/noaa-in-your-backyard>), and NOAA Environmental Literacy Program's resilience assets (<https://www.noaa.gov/office-education/elp/resilience-assets>).

NOAA has identified several environments in Hawaii as special places for place-based management. Projects are encouraged to be connected to or based on conservation efforts at one of the following locations: Hawaiian Islands Humpback Whale National Marine Sanctuary; Papahānaumokuākea Marine National Monument; Heeia National Estuarine Research Reserve (NERR); or West Maui or South Kohala Coral Priority Areas.

2. Definitions: The terms used throughout this announcement are thus defined:

- a. Ahupuaa: An ahupuaa is a division of land, which is often oriented vertically extending from the uplands and usually includes portions of the sea, that is part of a larger traditional resource management system established by ancient Hawaiians to sustainably utilize the resources throughout the islands. The ahupuaa was developed and maintained as a practical approach for environmental stewardship and management of human-nature relationships. The ahupuaa encompasses an intimate understanding of the holistic connections, functions, and interactions between the lewa (sky), honua (Earth), wai (freshwater sources), and kai (sea). Within the ahupuaa, human interactions and the use of biocultural resources were strictly managed through laws and social norms that were passed from generation to generation. This was a prominent practice and significant accomplishment in the history of traditional Hawaiian society. Today, ahupuaa management weaves Native Hawaiian knowledge systems, values, and practices with contemporary tools through community partnerships working towards biocultural restoration.
- b. Aina: land, ocean, communities; a source of sustenance that feeds one's physical, mental, emotional, and spiritual well-being.
- c. Aina Momona: healthy, productive and thriving communities of people and place.
- d. Biocultural: weaving knowledge systems to understand the link between nature and culture and the interrelationships between humans and the environment. Defined in conservation fields as "conservation actions made in the service of sustaining the biophysical and sociocultural components of dynamic, interacting, and interdependent social-ecological systems" (Maffi and Woodley, 2012).

e. Climate Science: The term for sciences related to any of the studies that deal with the long-term average of conditions in the atmosphere, ocean, ice sheets, and sea ice. These long term patterns of oceanic and atmospheric conditions at a location can be described by statistics, such as means and extremes, and/or indigenous histories and observations embedded in local traditional communities.

f. Curriculum: Refers to the lessons and academic content taught in a school or in a formal course or program which demonstrates a scope and sequence of learning objectives and assessments that build upon each topic. An individual teacher's curriculum, for example, would be the specific learning standards, lessons, assignments, and materials used to organize, teach, and assess students' proficiency of a particular course.

g. Earth Science: The term for sciences related to any of the studies that deal with the Earth or with one or more of its parts. Many scientists use the Earth systems science approach which treats the entire Earth as a system. Earth sciences include but are not limited to: meteorology; climatology; atmospheric chemistry; geology; geodesy; geophysics; soil science; oceanography; hydrology; marine biology; glaciology; and marine, coastal, and atmospheric sciences.

h. Environmental Stewardship: The responsible use and protection of the natural environment through conservation and sustainable practices to enhance ecosystem resilience and human well-being.

i. Equity: the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to historically underserved or historically underrepresented communities that have been denied such treatment.

j. Hawaii: The islands of Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai, Niihau, and the Northwestern Hawaiian Islands.

k. Inclusion: the practice or policy of providing equal access to opportunities and resources for people who might otherwise be excluded or marginalized. For applicants that means, the practice to incorporate any relevant traditional and/or community knowledge into project activities to represent the diverse perspectives and values of their target community(ies).

l. Indigenous: originating or occurring naturally in a particular place.

m. Indigenous and Local Knowledge (ILK): refers to a cumulative body of knowledge, skills, observations, and systems developed, maintained, and practiced by “peoples with

extended histories of interaction with the natural environment” and which are embedded in the cultural traditions of regional, indigenous, and/or local communities.

n. Kupuna: Hawaiian word for ancestor, grandparent, elder, or source (of knowledge).

o. Malama aina: taking care of the land, ocean, and communities that take care of you through recognizing individual and collective kuleana (responsibility).

p. Meaningful Watershed Educational Experiences (MWEEs): Details in Section I.A.1 of this announcement.

q. Pedagogy: the method and practice of teaching, especially as an academic subject or theoretical concept.

r. Pilina: relationships.

s. Stewardship: Behaviors and decisions that conserve, restore, and protect natural and cultural resources.

t. Students: Kindergarten through high school (K-12) youth.

u. Teachers/Educators: Formal educators for kindergarten through high school and informal educators for all audiences.

v. Watershed: Land area from which water drains toward a common watercourse in a natural basin. For the Hawaii B-WET grant program, projects should incorporate the broader concept of ahupuaa.

B. Program Priorities

Native Hawaiians are well-known for their integrated and sustainable resource management practices, along with their ability to perpetuate environmental and cultural values from generation to generation. Hawaiian culture is founded on keen observations of Earth’s processes and applying that knowledge to shape sustainable practices that support Aina Momona. Intimate knowledge and expertise of the local environment and observing changes over time allowed Native Hawaiians to thrive through sustainable relationships with finite resources, supporting a population of nearly one million Hawaiians prior to European contact. Native Hawaiian worldview recognizes humans as part of a genealogical connection to the environment, not as a separate entity. Reciprocity in pilina to aina was premised on caring for aina in the way that it cares for you.

Today's conservation challenges require multi-disciplinary solutions that weave multiple knowledge systems supporting Aina Momona. Ahupuaa management includes engagement with local community partners who are active contributors to the social, cultural, biological, and spiritual components of biocultural stewardship in Hawaii. Long-term community partnerships include a multi-generational vision of biocultural stewardship of the aina. It provides opportunities to promote diverse community engagement, especially with Native Hawaiian organizations that are actively involved in place-based knowledge, to take an active part in decisions about the management of the ahupuaa to support community resilience. Part of community resilience is balancing the use of environmental resources with social and economic needs, assessing research needs, integrating Earth sciences, and developing solutions for land-use planning and coastal hazard resiliency. Long-term community partnerships provide a powerful example and management mechanism to integrate Earth sciences and community resilience to hazards in our contemporary land-use planning, which also assists with decision-making processes. Refer to Section I.A.1.d.iv. Partnerships for more information.

The Hawaii B-WET program provides a venue for students and teachers to weave traditional knowledge systems, values, and practices with Western science tools into contemporary ahupuaa management practices. Ahupuaa throughout the Hawaiian Islands provide a locally relevant opportunity through broader community stewardship initiatives for engaging local students in MWEEs through meaningful science-based learning experiences that advance learning skills and problem-solving abilities through a biocultural lens with the general school curriculum.

All B-WET projects under this funding announcement should support the direct implementation of the MWEE and apply the concept of ahupuaa. All applications should follow the MWEE guidance and additional required components to be successful. In addition, an application must address one of the following priorities (and corresponding details that follow):

1. PRIORITY 1: Meaningful Watershed Educational Experiences for Students

The NOAA Hawaii B-WET program seeks applications for projects that provide opportunities for K-12 students to participate in meaningful place-based outdoor experiences that empower students' learning. Projects submitted under this priority should be learner-centered and focused on the four MWEE Essential Elements: issue definition, outdoor field experiences, synthesis and conclusions, and environmental action projects. These activities that are grounded in best practices and include the concept of ahupuaa, increase student

interest and engagement in learning, support student achievement, advance 21st Century skills, and advance environmental stewardship and civic responsibility. As a result of the MWEEs, students should have an understanding of basic watershed concepts, as well as the interaction between natural and social systems, highlighting the connection between human activity and environmental conditions. Applications submitted under this area should address the NOAA MWEE components in the previous Sections I.A.1a-c.

2. PRIORITY 2: Teacher Professional Development for Meaningful Watershed Educational Experiences

The Hawaii B-WET program seeks applications for projects that provide teachers opportunities for professional development in implementing MWEEs. Educators should ultimately provide MWEEs for their students by weaving together classroom and field activities, within the context of their instructional coursework and current critical issues that impact the Hawaiian Islands. Systematic, long-term education programs, and professional development opportunities will reinforce an educator's ability to teach, inspire, and lead young people toward thoughtful stewardship of our natural and cultural resources, as well as develop the next generation of decision-makers.

Based on current education research and B-WET evaluation results, we recommend professional development (PD) providers consider the following in the design of professional development to support change in teacher practice and the implementation of impactful MWEEs.

According to evaluation data on teacher PD, 30% teachers are not participating in environmental action projects, one of the MWEE essential elements, during PD. Research suggests teachers are more likely to engage their students in activities they experience themselves during professional development programs. Therefore, MWEE professional development should always include opportunities for teachers to experience environmental action projects that connect to the watershed issue being studied, as well as the inquiry activities their students will take to plan and implement their own action projects.

Regarding the time allocated for professional development, educational research findings and evidence from the B-WET national evaluation system support the B-WET program recommendation that professional development include more than 30 hours of professional development (for example, in-person multi-day workshops, virtual lectures or demonstrations, field-based data collection, one-on-one consultations), of which more than 10 hours should be spent doing hands-on inquiry or engaging in action projects in the outdoors. Where states and/or school districts put limits on the amount of time teachers can

spend in professional development, applicants should describe those limitations and how they will maximize the professional development time that is available. It has been shown that these targets will change teacher practice and increase the likelihood that teachers will implement impactful MWEs.

Where appropriate, professional development should include tools for teachers to implement MWEs on their school grounds. Resources exist to support the effective hands-on implementation of MWEs and the development and continued use of integrated, sustainable indoor and outdoor environmental learning projects that provide substantial benefit to both students and the school environment. Applications submitted under this area should address the NOAA MWE components in the previous Section I.A.1a-c.

NOTE: The numbers associated with the priorities are for reference and are not a ranking of importance. An application may address multiple priorities, however, applicants must identify one priority which is the primary focus of their application and reflected in the project and budget narratives.

C. Program Authority

15 USC 1540 Cooperative Agreements; 33 USC 893a (a) America COMPETES Act; 16 USC 1442 National Marine Sanctuaries Act

II. Award Information

A. Funding Availability

Grant awards are dependent on the availability of federal funding as provided in enacted Appropriations Acts. This Notice of Funding Opportunity (NOFO) is being released prior to final appropriations due to review and award process time frames. Based on previous appropriations, total anticipated funding for all awards is approximately \$1,000,000 and is subject to the availability of FY2023 funding. Multiple awards are anticipated from this announcement. The anticipated number of awards ranges from five (5) to fifteen (15) and will be adjusted based on available funding. The federal assistance request for the B-WET Priority 1 and 2 is a minimum of \$50,000 and a maximum of \$150,000 for the entire proposed project period of up to 24 months. Applications requesting federal support from NOAA of more than the maximum will not be considered for review or funding. A recipient of a previous award seeking to continue an existing project beyond the approved award period must submit a new application and compete with other applications.

Publication of this announcement does not obligate NOAA to establish any specific

partnership or to obligate available funds for partnership activities. There is no guarantee that funds will be available to make awards for this funding opportunity or that any application will be selected for funding. If an applicant incurs any costs prior to receiving an award agreement signed by an authorized NOAA official, it does so at its own risk of not being selected or of these costs not being included in a subsequent award. NOAA is not responsible for application preparation costs. Direct costs of application preparation shall not be included within the project application budget. In addition, NOAA and DOC will not be responsible for any incurred project costs if this program fails to receive funding.

B. Project/Award Period

The performance period for FY2023 funded projects under Priority 1 or 2 cannot exceed 24 months. The start date on applications shall be no earlier than August 1, 2023; or the first day of any preceding month after August 1, 2023, but no later than January 1, 2024.

C. Type of Funding Instrument

The funding instrument for these awards will be grants.

III. Eligibility Information

A. Eligible Applicants

Eligible funding applicants are K-12 public and independent schools and school systems, institutions of higher education, commercial and nonprofit organizations, state or local government agencies, and Indian tribal governments conducting projects in Hawaii (Islands of Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai, Niihau, and/or the Northwestern Hawaiian Islands). Individual applicants and federal agencies are not eligible.

DOC/NOAA supports cultural and gender diversity, and is strongly committed to broadening the participation of organizations that promote inclusion, such as tribal colleges, minority serving institutions, universities, and groups that work in historically underserved communities. The term underserved communities refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. Underserved communities are defined in Executive Order 13985:

<https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>.

Federal agencies and employees are not allowed to receive funds under this announcement but may serve as collaborative project partners and may contribute services in-kind; these

‘in-kind services’ cannot be considered as part of an applicant’s match on shared costs. If an applicant proposes a federal agency as a collaborator, applicants should provide detail on the expected level of federal engagement in the application. Examples might include, but are not limited to partnership services; serving in a review capacity; or participating in priority task teams, working groups, or leadership teams. NOAA employees are not permitted to assist in the preparation of applications.

B. Cost Sharing or Matching Requirement

Cost sharing is not required under this program. Any voluntary cost sharing or matching does not impact scoring and must be consistent with the requirements of 2 CFR 200.306.

C. Other Criteria that Affect Eligibility

None

IV. Application and Submission Information

A. Address to Request Application Package

The standard application package is available online at <https://www.grants.gov>. If accessing the application package online is not feasible, application packages may be requested from Mahealani Bambico, Hawaii B-WET Coordinator at Mokupapapa Discovery Center, 76 Kamehameha Ave, Hilo, HI 96720 or via email at mahealani.bambico@noaa.gov.

B. Content and Form of Application

Applicants should follow the full application requirements stated in this announcement or applications will not be considered for review. The preferred content and form of full application packages should be complete and must follow the format described in this notice. Missing substantive application components will deem an application incomplete and will not be considered for further review.

Applicants should plan to upload their application at Grants.gov as four files: 1. Title page 2. Project narrative, 3. Budget spreadsheet and narrative, and 4. Appendices.

The project descriptions must be no smaller than single-spaced, 12-point font. Project descriptions that exceed any of the page limits will be shortened by removing pages at the end of the application narrative before it is forwarded to merit reviewers for evaluation. Pages excised from lengthy applications will not be reviewed or considered. Any additional documents not required in the announcement, will be removed from the application before it is forwarded to merit reviewers for evaluation.

Required documents such as the SF-424 federal forms, the National Environmental Policy Act (NEPA) Questionnaire, Data Management Plan, and Negotiated Indirect Cost Rate Agreement (NICRA) do not count towards the page limits, and could be included at the end of the appendices after all other supplemental material or uploaded as a separate file.

Diacritical marks such as the okina and kahako are important to represent Hawaiian words appropriately. However, the official Grants.gov computer systems do not recognize diacritical marks. Using diacritical marks in file names or in the required forms may result in submission errors. Applications not received on time due to submission errors will not be reviewed. To avoid any potential errors, omit diacritical marks when typing or copying information into the online forms at Grants.gov. Proper spelling may be used in pdf files that are uploaded to the Grants.gov workspace.

Please keep in mind that the NOAA grant system has a time limit for downloading and uploading files, so we recommend that the total file size of the application package is less than five megabytes. Files that are larger than five megabytes may not be properly downloaded, uploaded, or received by the agency or the reviewers. Files that cannot be opened or downloaded will not be reviewed. Grants Online offers the following solutions to address the occasional challenge of uploading large data files to Grants Online (see PDF, page 11):

https://www.corporateservices.noaa.gov/grantsonline/Documents/EDATrainingManual_2015Oct.pdf.

All funding application packages must contain the following components:

1. Required Government Forms

At the time of application submission, all applicants shall submit the following forms with signatures of the Authorized Representative of the submitting institution. Required forms will be digitally signed and dated when the application is submitted through Grants.gov, therefore the Authorized Representative should be the person submitting the online application.

GOVERNMENT FORM NUMBER, TITLE, WHEN APPLICABLE

SF-424, Application for Federal Assistance: Required for all applicants

If a hard copy final application is submitted, it must be signed and dated by the organization's authorized representative.

SF-424A, Budget, Non-Construction Programs: Required for all applicants

Applicants requesting an award period longer than 12 months, should include a year 1 and year 2 breakdown of their budget on the SF-424A form.

SF-424B, Assurances, Non-Construction Programs: Required for all applicants

CD-511, Certification Regarding Lobbying: Required for all applicants

Applicants may put N/A for award number on the CD-511 form.

SF-LLL, Disclosure of Lobbying Activities: Required for organizations involved in lobbying

2. Title Page/Abstract (1 page max)

Provide a one-page overview of the proposed project. The title page must be prepared to be readable to a broad audience and should contain all the information below.

a. Project name/title

b. Recipient institution (name, address, phone, fax, website): must match registered name in Sam.gov

c. Principal Investigator and primary financial contact (name, address, phone, fax, email)

d. Hawaii B-WET program priority for which you are applying (select only one priority)

Priority 1: Meaningful Watershed Educational Experiences for Students; or

Priority 2: Teacher Professional Development for Meaningful Watershed Educational Experiences;

e. NOAA Priority Content Areas (select all relevant content areas)

Indigenous and Local Knowledge (ILK); Climate science; Earth, ocean, and atmospheric sciences

f. Project duration (up to 24 months, project period beginning to end dates, starting on the first of the month and ending on the last day of the month)

g. Budget

Total federal funds requested

Total project cost

Total cost-sharing (if applicable)

h. Brief project abstract (suggested length: 150 words)

i. Location and watershed identification

j. School and community identification

k. Number of teachers and/or students that will be involved in your project

l. Key partners

m. NOAA assets utilized in proposed project (e.g., resources, data, expertise, places)

3. Project Description (14 pages max)

Sufficient detail should be provided to enable reviewers to evaluate the relevance and applicability of proposed work to program priorities described in Section I.B of this announcement; to determine the technical/scientific merit of the proposed work; to adequately review the qualifications of the applicants; and to assess whether the proposed scope of work raises any concerns with regard to federal policy considerations, such as those related to the National Environmental Policy Act, Endangered Species Act, Historic Preservation Act, and the Marine Mammal Protection Act. All project descriptions should include the following sections:

a. Introduction/Goal: Describe in the narrative the specific project goals you are addressing for the target audience and/or community. Explain the purpose of your project including the Priority (1 or 2) and the NOAA Priority Content Areas (Indigenous and Local Knowledge and/or Climate and/or Earth Systems).

b. Background/ Need statement: Provide sufficient background information for reviewers to assess the significance or need of the proposed project. Summarize the locally related environmental issue, problem, or phenomenon to be addressed and give the status of ongoing efforts to focus on the identified needs. Demonstrate the need for assistance.

c. Audience: Identify the target audience and demonstrate an understanding of the needs of that audience; specifically indicate how many students and/or teachers are involved in your project. Give a precise location of the project and area(s) to be served including a map of the

school and watershed included in the application (the map may be included in an appendix).

The NOAA Office for Coastal Management (OCM) recognizes that it has a particular and unique opportunity to support NOAA's commitment to diversity and inclusion by taking an intentional step that encourages program applicants to consider diversity and inclusion as part of their scientific projects. This action has the potential to make an impact on not only the diversity and inclusion in science at NOAA, but also beyond the agency. In this section, describe how well the proposed activity broadens the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.). Examples could include, but are not limited to, full participation of women, persons with disabilities, and underrepresented minorities in science, technology, engineering, and mathematics (STEM).

d. Objective(s): Describe in the narrative the specific project objectives to be achieved. Objectives must be simple and understandable, as specific and quantitative as possible, and clear as to the "what and when." Projects should be accomplishment oriented and identify specific performance measures. Objectives should be specific for each year of the work plan presented. Recipients will be required to submit semi-annual progress reports in which progress against these objectives will be reported.

e. Approach/Methodology: Describe in detail the various MWEE components and how the project aligns with this approach. Explain what you are going to do to meet the objectives. Describe how you will implement the Priority Content Areas, including any knowledge, skills, and training aspects. Provide a work plan that identifies specific tasks to be accomplished to meet project objectives and explains the technical approach (including quality assurance) needed to accomplish the tasks. This should include a clear statement of the work to be undertaken and should clearly demonstrate how target audiences will be actively engaged in project activities and identifies potential obstacles to successful completion of the goals and objectives. Explain who will conduct the project; list each organization, cooperator, or other key individuals who will work on the project, along with a short description of the nature of their effort or contribution. Collaborations with community organizations and getting background information from community and/or cultural experts are highly encouraged. If the project includes federal partners, the roles and responsibilities of the federal partners must be clearly identified.

NOAA Hawaii B-WET understands that place based environmental education may be limited or modified due to the continuing COVID-19 pandemic. We encourage applicants to address those changes or modifications anticipated in your application, including any adaptations that may need to be made to the project at any point of the implementation of the project. Describe project flexibilities: Because pandemic responses are fluid over time,

applicants should describe what flexibilities their project plan possesses and their ability to adjust methods mid-stream, if needed, and still carry on their project plan. Describe alternate methods: Applicants should provide options and examples of how the MWEE framework can be addressed through alternative approaches and methods, such as virtual, blended, or at-home, or in-person learning, and remote stewardship activities. Please see COVID resources for applicants in Section VIII. Other Information.

f. Milestones and Schedule: Applicants should provide timelines for major tasks, target milestones for important intermediate and final products, and key project outcomes. Applicants should clearly show total anticipated contact time with project participants (teachers in professional development and students), and indicate how much of this time will be spent doing hands-on inquiry or engaging in action projects in the outdoors.

g. Project Evaluation: Explain how you will ensure that you are meeting the goals and objectives of your project. Evaluation plans may be quantitative and/or qualitative and may include evaluation tools, pre- and post tests, and/or surveys.

Project Evaluation here is defined as the systematic collection and documentation of information about your project's outcomes in order to improve the project's effectiveness, guide judgments about its impact, and/or inform decisions about future programming or funding. Up to 10% of the budget can be spent on the evaluation component of your application. Grant recipients will be required to submit a comprehensive evaluation report at the end of the project period as a special award condition.

In your evaluation plan, please describe how you will measure and document the outcomes and impacts of your project on your audience(s). Explain how your audience(s) will be different after their involvement in your project and detail how you will measure those differences. The outcomes you measure should correlate to your goals and the Hawaii B-WET program's priorities. Indicators of outcomes may be audience satisfaction with the project experience and changes in comprehension, skills, attitudes, and/or behaviors. Data can be quantitative and/or qualitative and data-gathering instruments might include (but are not limited to) pre- and post tests, surveys, interviews, guided observations, or rubric-rated presentations. Please include in your supporting documents any evaluation tools that you will be using as a part of your evaluation. Indicate if your evaluation will be front end (used to determine audience needs/understandings and plan a project), formative (used to improve a project), and/or summative (used to guide judgments about a project's impact and value).

NOTE: Participation in B-WET National Evaluation

In the past, B-WET has collected data on B-WET program grantee and participant activities and outcomes through its national evaluation system, above and beyond project-level evaluation work conducted by grantees. However, we are currently analyzing existing evaluation data and will enhance our evaluation approach based upon that analysis. Therefore, we are not currently collecting data via the B-WET National Evaluation System. Grantees may be invited to participate in future data collection activities and will be given advance notice about these opportunities so they can incorporate data collection into project and implementation plans, as appropriate.

Additional information about B-WET national evaluation work is available here: <https://www.noaa.gov/office-education/bwet/grantee-resources/national-evaluation>

h. Benefits: Identify and document the expected results or benefits to be derived from the proposed activities. Indicate benefits to program participants and the local community.

i. Previously Funded B-WET Projects: Applicants are asked to include examples of what they accomplished or learned from previously funded projects through the Hawaii B-WET program, if applicable.

j. Permits and Approvals: It is the responsibility of the applicant to obtain all necessary federal, state, and local government permits and approvals for the proposed work. Applicants must provide a list of all known permits that will be required to perform the proposed work and an indication of the status of any permits needed (e.g., not yet applied, permit application submitted/pending, permit granted, etc.) or a statement indicating that no permits are necessary. You should include this required element even if permits are not required.

Failure to apply for and/or obtain federal, state, and local permits, approvals, letters of agreement, or failure to provide environmental analyses where necessary (i.e., NEPA environmental assessment) will delay or prevent the award of funds for projects that have been preliminarily selected for funding.

For work proposed within National Marine Sanctuaries, National Parks, National Seashores, and other federally designated managed areas, it is the responsibility of the applicant to request and obtain any necessary permits or letters of agreement from the appropriate government agencies prior to commencement of an award. For applicants who propose to conduct research or monitoring activities that may affect any species that are listed under the Endangered Species Act, you will likely need an Endangered Species Act Section 10(a)(1)(A) permit.

4. Budget Narrative and Justification (5 pages max)

In order to allow reviewers to evaluate the appropriateness of all costs, applications should include a detailed budget narrative and a budget justification separated into individual tasks. The budget narrative and justification must total no more than 5 pages and should be limited to information that directly supports the project budget and budget justification. The budget narrative submitted with the final application should match the dollar amounts included on all required forms and clearly links to the project narrative. Please provide a spreadsheet of the expenditures and a narrative justification to explain these expenditures for each budget category listed below. The budget narrative should describe, by category of expenditure, the total funding needed to accomplish the objectives described in the project narrative for the entire award period. Please explain how categorical costs are derived in sufficient detail to enable reviewers to determine if costs are 'allowable and reasonable' according to the cost principles referenced in 2 CFR 200, Subpart E. Budget narrative categories should correspond to the standard object class categories listed in Section B of the SF-424A. For additional details, please review the NOAA Financial Assistance Budget Guidelines found on NOAA's Acquisition and Grants Office financial assistance webpage <https://www.noaa.gov/organization/acquisition-grants/how-to-apply>. Please include a budget spreadsheet with the budget narrative that summarizes costs for the entire project. The Great Lakes B-WET program has a budget table example online at https://thunderbay.noaa.gov/B-WET/B-WET_budget_template.xls.

a. Personnel:

Explain how each person will contribute to the direct implementation of this award. Include time commitments such as hours or % of salary.

b. Fringe:

Include % per individual(s). The budget narrative must provide a description and breakdown of the benefits/fringe received by personnel when rates are higher than 35%, unless the fringe rate is negotiated as part of the organization's Federally Negotiated Indirect Cost Rate Agreement (NICRA). A current copy of the agreement should be provided with the application.

c. Travel:

Include a description of anticipated travel and a justification of how the requested travel is directly relevant to the successful completion of the project. If actual trip details are

unknown, applicants must state the basis for the proposed travel charges. Include information on travel directly related to program implementation (buses, anticipated mileage, accommodations, per diem rate, etc.), along with anticipated number of trips, destination, and the number of travelers.

Travel indirectly related to the program such as presenting programming at conferences, training for program staff, and other related travel costs should also be included. Applicants shall allocate travel funds for any coordination meetings at regional or national levels.

The budget narrative should also provide, to the extent possible, detailed information on travel, including costs, a description of anticipated travel, destinations, the number of travelers, and a justification of how the requested travel is directly relevant to the successful completion of the project. If actual trip details are unknown, applicants should state the basis for the proposed travel charges. Applicants should allocate travel funds for any coordination meetings at regional or national levels. If a foreign air carrier is anticipated to be used for any portion of travel, prior approval is required under the DOC Financial Assistance Standard Terms and Conditions, Section G.05.d., https://www.commerce.gov/sites/default/files/2020-11/DOC%20Standard%20Terms%20and%20Conditions%20-%202012%20November%202020%20PDF_0.pdf, and therefore, such travel should be included in the application to avoid having to request prior approval after the project starts. Applicants may factor in travel costs for participation in an annual NOAA Grants Management Division (GMD) workshop for recipients.

d. Equipment:

For any equipment, a description of the item and associated costs are required, including a description of how it will be used in the project. Equipment purchases also require a lease vs. purchase assessment. Note that equipment is defined as tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds the lesser of the capitalization level established by the non-federal entity for financial statement purposes, or \$5,000. See 2 CFR 200.1 and 2 CFR 200.313. Most “equipment” for B-WET grants should be categorized as “supplies.”

Applicants should indicate what they plan to do with the equipment after the award period ends, as well as identify who they plan to request that NOAA transfer equipment or property ownership titles to after the project ends if this information is known when submitting the grant application. The decision on grant ownership requests will be made by the Grants Officer during the grant closeout process.

e. Supplies:

Provide a breakdown of the supplies needed to complete the proposed project.

f. Contractual:

Include such expenses as evaluators, facilitators, subcontracts for field experience services, community/cultural experts, etc. The cost or price, purpose, and method of selection for identified and planned acquisition contracts should be thoroughly justified in the Budget Narrative. Describe products or services to be obtained and indicate the applicability or necessity of each to the project. For “to be determined,” describe plans for selection. Procurements are subject to policies described in 2 CFR 200.317-327.

Applicants should include detailed budget information regarding all subawards and indicate the basis for the cost estimates in the narrative. Describe project activities to occur and indicate the applicability or necessity of each to the project. Each identified subaward that is \$30,000 or more should include a separate SF-424A form. Detailed budget information includes:

Name of identified qualified subrecipient or contractor, affiliation, contact information, and method of selection: For “to be determined,” describe plans for selection. Information must include the name and location (city, state, and Congressional district) of the entity receiving the funds, and the location of the primary place of performance under the contract or subaward.

Period of Performance: Include the dates for the performance period. If it involves a number of tasks, include the performance period for each task.

Scope of Work: List and describe the specific activities or tasks to be performed.

Criteria for Measuring Accountability: Include an itemized line item breakdown as well as total contract/award amount. If applicable, include any indirect costs paid under the contract/award and the indirect cost rate used.

Itemized Budget: Include categories used in program budget for subrecipients or cost-based contractors. If applicable, include any direct cost paid under the subaward or contract and add the indirect cost rate used.

All subawards and contracts must be made consistent with the requirements of 2 CFR 200.331-333 for subawards, and 2 CFR 200.317-327 for procurements.

g. Construction:

Construction activities are not allowed through the B-WET program.

h. Other:

Describe how the budget supports the project in ways not already described in the above cost categories, such as involvement of project partners and participants through “participant support costs”. Participant support costs are direct costs for items such as stipends, program fees and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with conferences, or training projects (§ 2 Part §200.432, 200.438, 200.456, and 200.475). Line items in the budget are generally placed under the cost category “other” for stipends, purchase orders, or subawards.

i. Indirect Costs:

The proposed budget may include an amount for indirect or Facilities and Administrative (F&A) costs if the applicant has an established indirect cost rate from a federal agency that covers the period of the award. Indirect costs are essentially overhead costs for basic operational functions (e.g. utilities, rent, and insurance) that are incurred for common or joint objectives and, therefore, cannot be identified specifically attributed to one particular project (See 2 CFR 200.1 and 200.412-415).

Indirect costs should be calculated on Modified Total Direct Costs (MTDC) as defined in 2 CFR 200.1. MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs, and the portion of each subaward in excess of \$30,000. All applicants requesting indirect costs should show the MTDC calculation. Applicants requesting indirect costs should submit a copy of their current and signed Negotiated Indirect Cost Rate Agreement (NICRA) with their application package.

Non-federal entities may elect to charge a de minimis rate at 10% of MTDC as described in 2 CFR 200.414. Non-federal entities may use this rate indefinitely, but may choose to negotiate an indirect (F&A) cost rate at any time.

If the applicant plans to establish a new negotiated indirect cost rate agreement, the

negotiation and approval of a new rate is subject to the procedures required by NOAA and the Department of Commerce. The U.S. Department of Commerce, Financial Assistance Standard Terms and Conditions require that recipients within 90 days of the award start date, submit to the address listed below documentation (indirect cost proposal, cost allocation plan, etc.) necessary to perform the review.

Lamar Revis, Grants Officer
NOAA Grants Management Division
1325 East West Highway, 9th Floor
Silver Spring, Maryland 20910
Lamar.Revis@noaa.gov

5. Appendices (20 pages max, page limit excludes the required items such as Letters of Collaboration, Resumes/CVs, Data Management Plans, NICRA documentation, and/or NEPA and Environmental Compliance Questionnaire) Appendices should not total more than 20 total pages and should be limited to materials that directly support the main body of the application (e.g., references, lists of relevant work products or reports, detailed methodologies, data sources, lists of data sources, and maps). Appendices that exceed the 20-page limit will be shortened by removing pages at the end appendices before it is forwarded to merit reviewers for evaluation. Applicants should paginate their application and any appendices.

a. Letters of Collaboration

Signed letters of collaboration from each significant partner must be submitted with the application package to demonstrate the level of commitment and involvement. Total number of letters may not exceed five (5) letters. Individual letters of collaboration should be formatted in 12-point font, one-sided, and may not exceed one (1) page in length. Letters dated or received after the application deadline will not be considered for review with the application package.

Any organization or individual named as a partner, advisor, or consultant to a project not covered by a letter of collaboration should provide a statement acknowledging that they will work with the recipient if B-WET funding is received. In lieu of individual statements, the applicant may have multiple partners sign a list indicating their commitment as long as each partner's name, organization, and title is included. Multiple statements of commitment may be submitted on a single page, but total statements of commitment may not exceed 3 pages. Statements dated after the application deadline will not be considered for review with the application package.

Projects based on or integrally connected to NOAA focus areas should include a letter of collaboration from a NOAA office or lead management organization associated with the location.

b. Resumes/CV

Provide resumes of the Principal Investigator and other key personnel critical to the success of the project. Ensure that resumes address qualifications relevant to conducting the proposed work. Please limit resumes to a maximum of two (2) pages for each person.

c. Other appendices such as references, lists of data sources, maps, syllabi, and/or agendas.

d. Data Management Plan

Applications submitted in response to this announcement must include a Data Management Plan up to two pages with their appendix. Applications that do not address the Data Management Plan will not be reviewed. The Data Management Plan should be aligned with the NOAA B-WET Data Management Guidance provided below and will be considered as part of the application review. The Data Management Plan does not count towards the page limit.

Data Management Guidance to Applicants

The NOAA B-WET program has developed this guidance to help grant applicants plan to share quality environmental data collected as part of their B-WET funded projects, where applicable. Environmental data are defined by NOAA Administrative Order (NAO) 212-15: Management of Environmental Data and Information as recorded and derived observations and measurements of the physical, chemical, biological, geological, and geophysical properties and conditions of the oceans, atmosphere, space environment, sun, and solid Earth, as well as correlative data, such as socio-economic data, related documentation, and metadata. Digital audio or video recordings of environmental phenomena (such as animal sounds or undersea video) are included in this definition. Numerical model outputs are included in this definition, particularly if they are used to support the conclusion of a peer-reviewed publication. Data collected in a laboratory or other controlled environment, such as measurements of animals and chemical processes, are included in this definition.

Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely

fashion (typically within two years), free of charge, or at no more than the cost of reproduction, unless an exemption is granted by the NOAA program. Data should be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine-readable documentation (metadata), preferably based on widely-used or international standards.

Applicant Data Management Plans should be aligned with the following Data Management Guidance:

- i. If environmental data collected/generated as part of the project are primarily for education and/or the practice of making observations using scientific techniques/methods (e.g., measuring pH of water with a refractometer, measuring atmospheric humidity with a sling psychrometer, measuring percent vegetative cover using a transect, etc.) and are not intended to be shared with scientists outside of the educational program, applicants may request permission not to make data publicly accessible and obtain approval from the Federal Program Officer if funded. In this case, this element of the application should consist of a paragraph (under the heading “Data Management Plan”) describing the intended use of the data and that an exemption from data sharing is requested.
- ii. If environmental data collected/generated as part of the project are for purposes beyond education and/or the practice of making observations using scientific techniques/methods, applicants should describe (up to 2 pages, under the heading “Data Management Plan”) how data will be shared, based on the following guidance:

Contents: A typical Data Management Plan should include descriptions of the types of environmental data and information expected to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible. The plan should describe or reference the data quality control techniques that will be used or note that the data will not be quality controlled. Data that is not quality controlled should include a description on the limitations of the data or an indication of degree of uncertainty.

Technical recommendations: The NOAA B-WET program does not offer specific technical guidance. Applicants should describe their proposed approach. Use of open-standard formats and methods are encouraged. Note that the Federal Program Officer may require revisions to the applicant’s Data Management Plan prior to recommending the application for funding.

Data Accessibility: The NOAA B-WET program recommends that public access to grant-

produced data be enabled as follows:

An existing publicly accessible online data server at the funded institution is to be used to host these data (describe in application); or data are to be submitted to a public data repository appropriate to this scientific domain (e.g., The GLOBE Program - <https://www.globe.gov/>, CoCoRaHS Community - <http://www.cocorahs.org/>) (describe in application); or funding recipients will establish their own data hosting capability (please describe in application's Data Management Plan).

NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded applications, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a catalog to indicate the pending availability of new data. Application submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to the NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.

Resources: Applications are permitted to include the costs of data preparation, accessibility, or archiving in their budgets.

Responsible NOAA Official for questions regarding this guidance and for verifying accessibility of data produced by funding recipients:

Name: Bronwen Rice

Title: B-WET National Coordinator

Affiliation or facility: NOAA Office of Education

E-mail address: Bronwen.Rice@noaa.gov

Phone number: 202-482-6797

For questions about the Data Management Plan, refer to the contact official listed in Section VII of this Announcement.

e. Negotiated Indirect Cost Rate Agreement (NICRA)

The NICRA with the appropriate cognizant agency (if applicable) must be included in the application package if indirect costs are requested. This agreement memo can be included at the end of the appendix if necessary.

6. National Environmental Policy Act (NEPA) and Environmental Compliance Questionnaire

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or applications which are seeking funding from NOAA. Applicants recommended for funding must complete the Environmental Compliance Questionnaire for National Oceanic and Atmospheric Administration Notice of Federal Funding Opportunity Applicants (OMB Control No 0648-0538) accessible at <https://www.nepa.noaa.gov/docs/NOAA-Grants-Questionnaire-final.pdf> before any potential awards can be processed. The failure to do so shall be grounds for the denial of an application. If your project may trigger consideration under the National Environmental Policy Act (NEPA), you may identify any impact the proposed work will have on the quality of the environment by completing the NOAA NEPA Questionnaire and including it at the end of the appendices. This questionnaire will not count toward the page limits described in the announcement, and reviewers will not evaluate content in the questionnaire as part of the merit review.

Refer to Section VI.B.5 of this Announcement for additional information about NEPA.

C. Unique Entity Identifier and System for Award Management (SAM)

Applicants should: (1) Be registered in the federal System for Award Management (SAM.gov) before submitting an application; (2) provide a valid Unique Entity Identifier (UEI) on an application; and (3) continue to maintain an active SAM registration with current information at all times during which it has an active federal award or an application or plan under consideration by a federal awarding agency. NOAA may not make a federal award to an applicant until the applicant has complied with all applicable unique entity identifier and SAM requirements and, if an applicant has not fully complied with the requirements by the time NOAA is ready to make a federal award, NOAA may determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

Applicants should allow a minimum of two weeks to complete the SAM registration; registration is required only once but must be periodically renewed. On April 4, 2022, the federal government began using a new Unique Entity Identifier number provided by SAM. Your organization's Employer Identification Number (EIN) will be needed to receive a UEI, which is provided by SAM. If your entity is already registered in SAM.gov, your new UEI has already been assigned and is viewable in SAM.gov. This includes inactive registrations.

Applicants are strongly encouraged not to wait until the application deadline date to begin

the application process online at <https://www.grants.gov>.

D. Submission Dates and Times

Please be advised that potential funding applicants must register with Grants.gov before submitting any application materials. An organization's one-time registration process may take several weeks to complete so please allow sufficient time to ensure applications are submitted before the closing date.

Applications submitted for funding under this competition must be received and validated by Grants.gov on or before 6:59 p.m. Hawaii-Aleutian standard time on January 31, 2023.

PLEASE NOTE: For applicants that submit through Grants.gov, it may take Grants.gov up to two business days to validate or reject the application. This means that it may take two days until the applicant is notified as to whether NOAA received the application, so allow sufficient time to ensure applications are submitted before the closing date. To account for any potential submission errors, the Program Office recommends submitting complete applications well before the deadline. Please keep this in mind in developing your submission timeline. Applications received after the deadline will be rejected without further consideration. No email and/or facsimile applications will be accepted. The Federal Program Office has a process to review for completeness. Administrative reviews generally take place after deadlines because the majority of applicants apply just before deadlines. If there are no time constraints and available resources, the federal agency may reach back to applicants who have submitted incomplete packages.

If for any reason applicants are unable to submit their application through Grants.gov or are concerned about possible problems associated with the Grants.gov system, they may provide a paper copy of their full application by mail. Applications submitted by mail must include all relevant application elements described above, must include a SF-424 form with original ink or valid electronic signature with a date from an authorized recipient organization representative, and must be stamped with an official U.S. Postal Service postmark or provided to a commercial carrier with tracking number and receipt on or before 6:59 p.m. Hawaii-Aleutian standard time on January 31, 2023. Private metered postmarks are unacceptable. No email or fax copies will be accepted. Please address all mailed applications to: Mokupapapa Discovery Center, 76 Kamehameha Ave, Hilo, HI 96720, ATTN: Mahealani Bambico. Paper applications received more than three (3) business days after the deadline will not be reviewed, and applicants submitting by paper are responsible for tracking their applications.

E. Intergovernmental Review

Under Executive Order 12372, "Intergovernmental Review of Federal Programs," some

states have elected to implement processes to coordinate and review proposed federal assistance prior to application. Hawaii has not chosen to participate, but applicants from other states applying to the Hawaii B-WET competition might be subject to such a process. Such applicants are responsible for contacting their state's Single Point of Contact (SPOC), if applicable, to find out about and comply with any such processes. To assist the applicant, contact information for SPOC is on the Office of Management and Budget web site at <https://www.whitehouse.gov/wp-content/uploads/2020/04/SPOC-4-13-20.pdf>.

F. Funding Restrictions

Please note the following funding restrictions:

1. Funding may not be used to support endowments, individuals, building campaigns or capital construction, deficit financing, annual giving, or fundraising.

G. Other Submission Requirements

The standard NOAA funding application package is available at www.grants.gov by searching the Funding Opportunity Number or the CFDA number (11.473). Application packages, including all letters of collaboration, shall be submitted through the "Apply" function on Grants.gov. The Grants.gov site contains directions for submitting an application, which may be updated or revised from previous instructions that applicants may have used in the past. Applicants must register with Grants.gov before any application materials can be submitted. To use Grants.gov, applicants must have a Unique Entity Identifier (UEI) and be registered in SAM.gov, which requires periodic renewals. Refer to Section IV.C for details on receiving a UEI and registering with SAM.gov.

After electronic submission of the application through Grants.gov, the person submitting the application will receive two email messages within the next 24 to 48 hours from Grants.gov updating them on the progress of their application. The first email will confirm receipt of the application by the Grants.gov system, and the second will indicate that the application has either been successfully validated by the system before transmission to the grantor agency or has been rejected because of errors. Only validated applications are sent to NOAA for review. After the application has been validated, this same person will receive a third email when the application has been downloaded by the federal agency.

Applicants should not electronically submit packages with files embedded within files as any such files might not be reviewed or factored into the merit review process.

If an applicant submits multiple electronic versions of the application, the applicant should advise the federal agency of the tracking number that should be withdrawn.

If use of Grants.gov is not feasible, applicants should follow the paper copy submission guidance in Section IV.D.

V. Application Review Information

A. Evaluation Criteria

1. Importance and/or relevance, and applicability of proposed project to the program goals (35 points): This ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, or local activities. For the NOAA Office for Coastal Management Grant Program Competition, this includes importance and relevance to the scientific priorities of the selected competition, the PI's record of making their data accessible and usable by the scientific community in the past, and the Statement of Diversity and Inclusion described in Section IV.B.3.c.

For the Hawaii B-WET program this includes the following categories:

- a. How well are the project components demonstrating a connection to ahupuaa management in the project description? (5 points)
- b. Does the application include local community partnerships and stewardship activities that will sustain after the project? (2 points)
- c. For Priority 1 (Meaningful Watershed Educational Experiences for Students): Are there Meaningful Watershed Education Experiences for students? Does the project include the four MWEE essential elements for planning or implementation: 1) issue definition, 2) outdoor field experiences, 3) synthesis and conclusions, and 4) environmental action projects? Does the project include the four supporting practices: 1) teacher facilitation, 2) learning integration, 3) sustained experience, and 4) local context? (15 points)
- d. For Priority 2 (Teacher Professional Development for Meaningful Watershed Educational Experiences): Are there Meaningful Watershed Education Experiences for teachers? Does the project include the teacher MWEE professional development practices: 1) increases teachers' knowledge and awareness of environmental issues, 2) Model MWEE framework, 3) allows for adequate instructional time, 4) provides ongoing teacher support and appropriate incentives, and 5) meets jurisdictional guidelines for effective teacher professional development? (15 points)
- e. Does the project involve NOAA and NOAA-related assets, such as data, resources,

expertise, or place-based partners? (2 points)

f. Does the project align with the Next Generation Science Standards and Hawaii Common Core State Education Standards; Na Hopena Ao framework; Hawaiian pedagogy; and/or Ocean, Energy, or Climate Literacy Principles? (3 points)

g. Does the project describe how the programming will focus on Priority Content Area-Indigenous and Local Knowledge (ILK) methodologies and pedagogies content and implement that content area/model/framework for the target audience? (3 points)

h. Does the project describe how the programming will focus on Priority Content Area-climate science content and implement that content area/model/framework for the target audience? (3 points)

i. Does the project describe how the programming will focus on Priority Content Area-Earth, ocean, and atmospheric sciences content and implement that content area/model/framework for the target audience? (2 points)

2. Technical and scientific merit (20 points): This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives.

For the Hawaii B-WET program this includes the following categories:

a. Does the project have clearly defined, focused, and realistic objectives that meet the goal and mission of B-WET? (3 points)

b. Does the project articulate how the objectives will be achieved, with task descriptions, timelines or milestones and contingencies for COVID-19, if applicable? (4 points)

c. Is the issue, problem, or phenomenon that is being addressed in the project clear, precise, and appropriate? (2 points)

d. For Priority 1 (Meaningful Watershed Educational Experiences for Students): Is this project integrated and/or associated with a school or college program? (3 points)

e. For Priority 2 (Teacher Professional Development for Meaningful Watershed Educational Experiences): Does the project include more than 30 hours of professional development time? Is more than 10 hours of professional development time spent doing hands-on inquiry

or engaging in action projects in the outdoors? If not, does the applicant provide a reasonable justification for the time proposed? Does the applicant propose a robust plan for PD within the time that is available? (2 points)

f. For Priority 2 (Teacher Professional Development for Meaningful Watershed Educational Experiences): Does the project describe adequate incentives that support teachers' abilities to attend professional development activities? (1 point)

g. Does this project collaborate with local organizations and/or historically marginalized or underrepresented communities? (4 points)

h. Does the application describe how the project/program will assess their goals and how the evaluation plan will be implemented? (4 points)

3. Overall qualifications of the funding applicant (20 points): This criterion ascertains whether the funding applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.

For the Hawaii B-WET program questions relevant to this criterion include:

a. Does the applicant show the capability and experience in successfully implementing and managing similar projects, and managing grants or contracts? (2 points)

b. Does the applicant organization/institution serve marginalized groups, particularly historically marginalized or underrepresented communities? (3 points)

c. Does the applicant demonstrate knowledge of the target audience, local community, and the ahupuaa where the project will be implemented? (2 points)

d. Does the applicant have subject matter experts delivering content/framework and model lessons/curriculum? (2 points)

e. Does the applicant demonstrate knowledge of, and experience and/or training in relevant education standards, pedagogy, and literacy principles? (2 points)

f. Does the applicant document past collaborations with education programs, schools, or school systems in the Pacific? (2 points)

g. Do the proposed partnerships enhance and support the project, which should include local,

community organizations and cultural experts/practitioners? (2 points)

h. Does the applicant clearly state a strategy to engage with community partners and resources in that ahupuaa to build long-term capacity? (2 points)

i. Do the letters of collaboration indicate how partners will support the project? If the project is tied to a NOAA place-based management area, is there a letter of collaboration from NOAA or a lead site manager ? (3 points)

4. Project costs (20 points): This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame.

For the Hawaii B-WET program questions relevant to this criterion include:

a. Is the budget request reasonable and does it provide relevant budget line items in direct support of the proposed project? (5 points)

b. Does the applicant provide a detailed narrative justification of the proposed budget items? How well do the costs match with the tasks and activities proposed? (5 points)

c. Does the budget support activities that will bring students and/or teachers in contact with the environment to allow them to create a strong sense of stewardship for their school, community, and the Hawaiian Islands? (5 points)

d. Are a majority of the requested funds for salaries and fringe benefits for those personnel who are directly involved in implementing the proposed project and/or are directly related to specific products or outcomes of the proposed project? (3 points)

e. Are funds going to local participation or activities that support underserved communities? (1 point)

f. Are funds allocated for teacher support activities, tasks or stipends? (1 point)

5. Outreach (5 points): This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to understand and protect the Nation's natural resources.

For the B-WET program questions relevant to this criterion include:

- a. Does the project involve the participants in outreach or community events that demonstrate a positive benefit or project results in their local community? (3 points)
- b. Does the application describe innovative approaches to external sharing and communication of the project results? (2 points)

B. Review and Selection Process

Upon receipt of a full application, an initial administrative screening will be conducted to determine compliance with requirements and completeness of the application package. NOAA, in its sole discretion, may continue the review process for applications with non-substantive issues that may be easily rectified. All applications will be evaluated by at least three independent peer reviewers, who are regional experts in the field of environmental education or specialty focus areas, through a full merit review process that includes a technical and panel review. Reviewers may be federal or non-federal, and the same reviewers participate in both parts of the review process. During the technical review, at least three reviewers will independently score each application based on the evaluation criteria in Section V.A above, and the reviewers will provide comments based on the evaluation criteria. The Competition Manager will establish a preliminary rank order based on the average reviewer scores from the technical review. For the panel review, the reviewers will convene to evaluate the ranking and comments from the technical review, then discuss the applications as a group. Discussions are based on the evaluation criteria in Section V.A. During the panel meeting, reviewers can revise their scores and comments. Reviewers must individually submit a final ranking to the Competition Manager by the end of the panel meeting. The reviewer's final rankings will be averaged for each application to produce a final rank order of the applications during a full panel review.

The Competition Manager will brief regional NOAA leadership on the panel results and will include their input when making recommendations to the Selecting Official. The Selecting Official will make the final recommendations for the awards based on the final rank order and selection factors below to the Grants Officer, who is authorized to obligate federal funding and execute the award.

NOAA may select all, some, or none of the applications; part of any application; ask applicants to work together or combine projects; defer applications to the future; or reallocate funds to different funding categories to the extent authorized. Depending on availability of funding, an application may be considered for funding in another fiscal period without NOAA repeating the competitive process outlined in this announcement.

Please note that not all activities submitted under a single application may be deemed

appropriate for funding. The Selecting Official may recommend alternate activities as appropriate or award only partial funding, based on the selection factors, the merit, and/or panel review written evaluations. For an application to be selected for funding, the applicant may be asked to modify objectives, activities, work plans, and budgets, along with providing supplemental information required by the agency prior to the award. This may result in submission of a revised application before final funding decisions are made. The exact amount of funds to be awarded, the final scope of activities, the project duration, and other relevant application details will be determined in pre-award negotiations among the applicant, NOAA Grants Management Division, and Office for Coastal Management officials. Applicants should also note that modifications to projects may be necessary as a result of NOAA's efforts to comply with NEPA and other legislation.

Risk Review: After applications are proposed for funding by the Selecting Official, the Grants Office will perform administration reviews under 2 CFR 200.206. These may include assessments of the financial stability of an applicant; the quality of the applicant's management systems; history of performance; and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-federal entities. Special conditions that address any risks determined to exist may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency. NOAA reserves the right to reject an application in its entirety where information is uncovered that raises a significant risk with respect to the responsibility or suitability of an applicant. The final approval of selected applications and issuance of awards will be made by the NOAA Grants Officer. The award decision of the Grants Officer is final.

C. Selection Factors

The Selecting Official, an official within the Office for Coastal Management (or their designee), anticipates recommending applications for funding in rank order unless an application is justified to be selected out of rank order based upon one or more of the following selection factors:

1. Availability of funding.
2. Balance/distribution of funds:
 - a. By geographic area
 - b. By type of institutions

c. By type of partners

d. By research areas

e. By project types

3. Whether this project duplicates other projects funded or considered for funding by NOAA or other federal agencies.

4. Program priorities and policy factors as described in Section I.B of this federal funding opportunity.

5. Applicant's prior award performance.

6. Partnerships and/or participation of targeted groups.

7. Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

D. Anticipated Announcement and Award Dates

Subject to the availability of funds, review of applications will occur during Spring 2023. Applicants may receive communications to negotiate a potential award in Summer 2023. Projects should not expect to begin prior to August 1, 2023, unless otherwise directed by the Federal Program Officer or Grant Officer during official negotiations.

Unsuccessful applicants will be notified by email that their application was not recommended for funding after the final selection package has been approved by the NOAA Grants Management Division, which is expected to be approximately October 2023.

VI. Award Administration Information

A. Award Notices

The Program Office will forward applications recommended for funding by the Selecting Official to the NOAA Grants Management Division (GMD). The official notice of award is the Standard Form CD-450, Financial Assistance Award, issued by the NOAA Grants Officer electronically through NOAA's electronic grants management system, Grants

Online.

In addition, award documents provided by NOAA may contain special award conditions limiting the use of funds for activities that have outstanding environmental compliance requirements and may lead to modification of the project's scope of work. These special award conditions may also include other compliance requirements for the award and will be applied on a case-by-case basis. Applicants are strongly encouraged to review award documents carefully before accepting a federal award to ensure they are fully aware of the relevant terms that have been placed on the award.

Each recipient will also need to have a U.S. Treasury Automated Standard Application for Payment (ASAP) account in order to draw funds electronically. New NOAA award recipients will be provided with instructions on how to set up an ASAP account after the official notice of award has been issued. Refer to the US Treasury website for training details, <https://fiscal.treasury.gov/training>.

B. Administrative and National Policy Requirements

1. DEPARTMENT OF COMMERCE PRE-AWARD NOTIFICATION REQUIREMENTS

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register Notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation. Refer to <http://go.usa.gov/cXC7A>.

2. UNIFORM ADMINISTRATIVE REQUIREMENTS

Uniform Administrative Requirements, Cost Principles, and Audit Requirements at 2 CFR 200, implemented by the Department of Commerce at 2 CFR 1327.101, apply to awards in this program. Refer to <http://go.usa.gov/cXCJQ>.

3. TERMS AND CONDITIONS

The Department of Commerce Financial Assistance Standard Terms and Conditions will apply to awards in this program. These terms will be provided in the award package in Grants Online. A current version is available for review at https://www.commerce.gov/sites/default/files/2020-11/DOC%20Standard%20Terms%20and%20Conditions%20-%202012%20November%202020%20PDF_0.pdf. Also, NOAA will apply administrative terms, and a current version is at

<https://www.noaa.gov/sites/default/files/legacy/document/2021/Mar/Administrative%20Standard%20Award%20Conditions%20for%20NOAA%20Financial%20Assistance%20Awards%2002.18.2021.pdf>. In addition, award documents provided by NOAA may contain special award conditions, including those limiting the use of funds for compliance activities such as outstanding environmental compliance requirements, which will be applied on a case-by-case basis, and requirements for submitting progress reports.

4. LIMITATION OF LIABILITY

Funding for programs listed in this notice is contingent upon the availability of appropriations. Applicants are hereby given notice that funds may not have been appropriated yet for the programs listed in this notice. NOAA or the Department of Commerce are not responsible for application preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

NOAA reserves the right to halt activity under the award through enforcement procedures under 2 CFR 200.339-343, Remedies for Non-compliance, if the recipient is not fulfilling the requirements of the project as outlined in the grant award. Non-compliance with a federally approved project may result in termination of the award as described in 2 CFR 200.340.

5. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or applications which are seeking NOAA federal funding opportunities. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <https://www.nepa.noaa.gov>, including our NOAA Administrative Order 216-6 for NEPA, https://www.nepa.noaa.gov/NAO216_6.pdf, and the Council on Environmental Quality implementation regulations, https://energy.gov/sites/prod/files/NEPA-40CFR1500_1508.pdf.

Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted; locations; sites; species and habitat to be affected; possible construction activities; and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals; introduction of non-indigenous species; impacts to endangered and threatened species; aquaculture projects; and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact

analyses, applicants may also be requested to assist NOAA in drafting an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their application. Failure to do so shall be grounds for not selecting an application. In some cases, if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

6. FREEDOM OF INFORMATION ACT (FOIA)

In the event that an application contains information or data that you do not want disclosed prior to award for purposes other than the evaluation of the application, mark each page containing such information or data with the words “Privileged, Confidential, Commercial, or Financial Information - Limited Use” at the top of the page to assist NOAA in making disclosure determinations. DOC regulations implementing the Freedom of Information Act (FOIA), 5 USC 552, are found at 15 CFR Part 4, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by the applicant, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

7. MINORITY SERVING INSTITUTIONS

The Department of Commerce/National Oceanic and Atmospheric Administration (DOC/NOAA) is strongly committed to increasing the participation of Minority Serving Institutions (MSIs), such as historically Black colleges and universities, Hispanic-serving institutions, tribal colleges and universities, Alaskan Native and Native Hawaiian institutions, and institutions that work in underserved communities.

8. DATA SHARING PLAN

Refer to Section IV.B.5.d of this announcement for details on data sharing requirements.

C. Reporting

Award recipients will be required to submit financial and performance progress reports consistent with 2 CFR 200.328-330, and Department of Commerce Standard Terms and Conditions electronically through NOAA’s electronic grants management system, Grants

Online. Financial reports must be submitted every 6 months by the end of April and October during the period of the award in accordance with the Department of Commerce Financial Assistance Standard Terms and Conditions. Performance reports must be submitted on a semi-annual schedule, no later than 30 days following the end of each 6-month period from the start date of the award.

A comprehensive final report is due 120 calendar days after the award expiration date along with copies of all products developed under the award. Copies of all materials (including but not limited to brochures, posters, videos, DVDs, publications, reports, management plans, public service announcements, workshop proceedings, etc.) produced through the award, along with copies of any reports submitted by subcontractors as part of the award, must be provided to the Program Office within 120 calendar days at the end of the award. Except where limited by law, regulation, policy, or security, recipients are requested to include a statement on the front page of all products to indicate the material is “Approved for public release; distribution is unlimited.” If the applicant has requested publication costs, resulting journal publications must be made available to the public free of charge.

Successful applicants will be requested to ensure that all interim progress reports indicate whether financial reports have been submitted to NOAA’s Grants Management Division and are up to date. Applicants in their final progress report will be asked to certify that, “Final financial reports have been submitted to NOAA’s Grants Management Division and a final funding drawdown has been made through the Automated Standard Application for Payments (ASAP) and/or a final SF-270 request for advancement/reimbursement has been submitted to NOAA’s Grants Management Division.”

If equipment or tangible personal property is purchased with grant funds, applicants shall submit an inventory to the extent required by the Office of Management and Budget Uniform Guidance set out at 2 CFR 200.313. As necessary, SF-428 forms may be attached as an appendix to the final progress report or submitted directly to the NOAA Program Officer.

The Program Office recommends that if the equipment is no longer needed, recipients are encouraged to request disposition instructions for equipment approximately 150 days before the project period ends to allow sufficient time to have equipment disposition requests addressed before a project ends. Equipment disposition instructions typically require that recipients complete a “Submit Additional Closeout Documents” award action request in Grants Online. NOAA will provide instructions for disposition in accordance with 2 CFR 200.

The Federal Funding Accountability and Transparency Act, 31 USC 6101 note, includes a requirement for awardees of applicable federal grants to report information about first-tier subawards and executive compensation under federal assistance awards. All awardees of applicable grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at <https://www.fsrs.gov/> on all subawards over \$30,000. Refer to 2 CFR Part 170.

Evaluation Report

In addition to the financial and performance reports, grant recipients will be required to submit an evaluation report with the final project report for the duration of the project period as a special award condition.

This data collection will be conducted in a manner consistent with the Paperwork Reduction Act and the Office of Management and Budget guidelines (OMB Control No 0648-0658).

VII. Agency Contacts

For administrative and technical questions regarding this announcement, contact Mahealani Bambico, Hawaii B-WET Coordinator, at Mokupapapa Discovery Center, 76 Kamehameha Ave, Hilo, HI 96720, ATTN: Mahealani Bambico, or via email at mahealani.bambico@noaa.gov.

VIII. Other Information

Applicants from State of Hawaii Department of Education (HIDOE) Schools should contact the Office of Strategy, Innovation, and Performance - Policy, Innovation, Planning, and Evaluation Branch by email at PIPE@notes.k12.hi.us or phone (808) 586-3800 to ensure that their application complies with HIDOE policy.

Additional educational resources for applicants:

Climate change education resources:

- NOAA's Climate Resource Collection (<https://www.noaa.gov/education/resource-collections/climate>) includes relevant lesson plans and other resources from NOAA.

- Climate.gov (<https://www.climate.gov/>) promotes public understanding of climate science and climate-related events, to make NOAA data products and services easy to access and

use, to provide climate-related support to the private sector and the Nation's economy, and to serve people making climate-related decisions with tools and resources that help them answer specific questions, such as the Climate Literacy Principles and resources for teaching climate.

- Yale's Climate Communication For Educators site

(<https://climatecommunication.yale.edu/for-educators/>) For Educators: Grades 6-12. These materials aim to immerse students in climate change issues in an accessible, digestible, and interactive way. While these NGSS and Common Core-aligned activities were designed for middle and high schoolers, you can easily customize them for your students.

- National Network for Ocean and Climate Change Interpretation

(<https://climateinterpreter.org/about/projects/NNOCCI>)) NNOCCI is a network for informal education, the social sciences, and climate sciences.

Support and resources for educators during the COVID-19 pandemic:

- eeGuidance for Reopening Schools has been developed by NAAEE and members of its Affiliate Network. The guide includes information and strategies for how community-based environmental and outdoor education programs can help schools to equitably reopen during and after the pandemic: <https://naaee.org/eeopro/resources/eeGuidance-reopening-schools>

- Grantees might look to resources such as the National COVID-19 Outdoor Learning Initiative for broadly addressing the use of outdoor spaces to support their work: <https://www.greenschoolyards.org/covid-learn-outside>

- Bay Backpack resource for developing Outdoor Classrooms, Labs & Habitats:

http://baybackpack.com/schoolyard_projects/project/outdoor_classrooms_labs_habitats

- Nature Based Education Consortium's Outdoor Learning as a Response to COVID-19:

<https://www.nbeconsortium.com/outdoor-learning-schools>

Funds awarded cannot necessarily pay for all the costs that the recipient might incur in the course of carrying out an award. Generally, costs that are allowable include salaries, equipment and supplies, as long as these are "necessary and reasonable" specifically for the purpose of the award. Allowable costs are determined by reference to the OMB Uniform Guidance at 2 C.F.R. Part 200, codified by the Department of Commerce at 1327.101. All cost reimbursement sub-awards (e.g. subgrants, subcontracts) are subject to those federal cost principles applicable to the particular type of organization concerned.

The applicant acknowledges and understands that information and data contained in applications for financial assistance, as well as information and data contained in financial, performance and other reports submitted by applicants, may be used by the Department of Commerce in conducting reviews and evaluations of its financial assistance programs. For this purpose, applicant information and data may be accessed, reviewed and evaluated by Department of Commerce employees, other Federal employees, Federal agents and contractors, and/or by non-Federal personnel, all of whom enter into appropriate conflicts of interest and nondisclosure agreements covering the use of such information. As may be provided in the terms and conditions of a specific financial assistance award, applicants are expected to support program reviews and evaluations by submitting required financial and performance information and data in an accurate and timely manner, and by cooperating with the Department of Commerce and external program evaluators. In accordance with 2 C.F.R. § 200.303(e), applicants are reminded that they must take reasonable measures to safeguard protected personally identifiable information and other confidential or sensitive personal or business information created or obtained in connection with a Department of Commerce financial assistance award.