

State University System Education and General Performance Funds from FY 2020-2021 University of Distinction Reporting Template Quarter 1

(July 1 – September 30, 2020)

University:	Florida Gulf Coast University
Amount Allocated:	\$3,000,000 (\$2.82 million actual)

In describing the use of the 2020-2021 performance funds allocated to your university, this form consists of the following two parts:

I. Using the table below, please list the initiative(s), current amount spent, and current progress on the initiative.

Table 1

University Initiative	Spending as of September 30, 2020	Progress on Initiative as of September 30, 2020
The Water School: Increased research and scholarship relevant to character, challenges and opportunities in Southwest Florida	\$446,587	Q1 expenditures were limited due to uncertainties and constraints surrounding COVID-19. Funds were used to enhance research capacity and support graduate student research. Hiring of faculty is anticipated to begin in Q2.

II. Please provide a detailed description of each university initiative listed in Table 1 – including the anticipated return on investment, progress on the first-year metric, and plans for the second quarter.

The Water School – Increased Research and Scholarship: The Water School at Florida Gulf Coast University was established to address water issues in Southwest Florida by bringing together faculty from across the university; forging partnerships with local communities; working with local organizations

involved in environmental education and outreach; collaborating with research institutions across the state; and building research capacity to tackle these issues. A major component of this initiative is to educate and train the next generation of leaders responsible for addressing the region's environmental issues, especially those related to water. Core academic programs include undergraduate degrees in Environmental Geology, Environmental Studies, and Marine Science, and graduate degrees in Environmental Science Environmental Studies. In addition to the core faculty supporting these STEM programs, affiliate Water School faculty have been appointed from across the university, representing four colleges and thirteen other departments. The expenditures listed through the first quarter are representative of general operations of The Water School, in conjunction with key capital expenditures to build research capacity. As the University moves forward, expenditures should increase as hiring of positions and growth of the operation commence. However, due to the pandemic the rate at which these expenditures occur may not be linear. It is the full intent of the university to mobilize funding in a manner that is conscious of the risks and restrictions posed by the pandemic while at the same time moving The Water School forward with the greatest possible haste.

FGCU will hire a significant number of faculty in support of its academic and research programs. Several of these positions will be interdisciplinary and will consist of joint appointments with other departments within the College of Arts and Sciences and with other colleges across campus. New faculty will broaden available course selection for students and provide additional faculty mentors to supervise undergraduate research. Additional faculty will also loosen a major constraint to enrollment growth in the M.S. Environmental Science program—the availability of graduate advisors for students completing their thesis research. Instructors will also be hired to increase course offerings. This will enhance General Education capacity—potentially resulting in additional recruitment to STEM programs—and will make available release time for faculty who are active and productive in scholarship.

Significant resources will be allocated to enhance research capacity and productivity and to stimulate external grant funding. Research experience helps undergraduates hone their critical thinking and communication competencies and trains them to develop specific skills needed to be successful in STEM careers or graduate school. Graduate-level research prepares students to enter the workforce at a more advanced level with concomitantly higher salaries. External funding provided through faculty research helps drive undergraduate and graduate research. By hiring research-active faculty, adding staff to support research and outreach, and increasing financial support for students, The Water School will be able to enhance research productivity in the areas of harmful algal blooms, coastal vulnerability/sea level rise, climate change/hurricanes, environmental education and communication, water quality and management, and environmental restoration.

Outreach and partnerships transform the research and scholarship conducted at The Water School and enhance its value by using it to inform K-12 education, translating the results for citizens, training decision makers, and providing actionable information for stakeholders and government agencies. The Water School is partnering with the school districts of Lee and Collier Counties and with local non-profit organizations to implement several programs focusing on environmental education and outreach. Through its Center for Environmental and Sustainability Education, The Water School is also identifying potential federal partners to support these programs through competitive grants. Outreach funding will also be used to support the work of the Southwest Florida Regional Resiliency Compact. This effort brings together representatives from three counties and ten municipalities to develop a regional plan for communities to adapt to climate change and increase coastal resilience.

a. Progress on Initiative: Due to the financial impacts of COVID-19 and current uncertainties regarding the potential for additional impacts, FGCU has taken a judicious and very conservative approach in its stewardship of Universities of Distinction funds. Expenditures have been limited during the first quarter, but we anticipate increasing spending in the coming months as the full impacts of COVID become clear and the constraints surrounding COVID-19 (i.e., delays in hiring, restrictions in travel, reduction in team size for laboratory and field work) are lifted.

<u>Building research capacity</u>. — In the first quarter, \$182,406 was expended or encumbered to acquire additional instruments and equipment in support of faculty and student research for The Water School. These include a boat to support research in coastal waters (\$51,555); a LISST-HAB to measure/map cell size and concentration in harmful algal blooms (\$53,145); a sonde for measuring/monitoring water quality (\$23,880); a quantitative PCR for measuring gene expression (\$18,000); and a solar-powered environmental data logger (\$7,403).

<u>Faculty/Staff hiring.</u> — Due to budgetary impacts related to COVID-19, we limited hiring in the first quarter to one replacement faculty position to support the B.S. Environmental Geology/B.S. Marine Science degree programs. This position is currently posted. We anticipate that additional faculty lines will be available in the second quarter as the situation surrounding COVID-19 and its realized and potential impacts are more fully understood.

<u>Student funding</u>. — Opportunities for undergraduate research during the first quarter have been reduced due to constraints placed on laboratory and field work due to COVID-19. However, during this period \$60,425 was expended on graduate research assistantships and an additional \$2,789 on student OPS research assistantships.

<u>Outreach and Partnerships</u>. — Project WeTLAnd (Watershed Teacher Leadership Academy) connects FGCU researchers and K-12 teachers,

resulting in increased inquiry-based science delivery and increased student achievement in science. A cohort of ten teachers from the School District of Lee County (including five Title I schools) was selected for 2020–2021 and completed its initial training in Fall 2020.

Project WATERS (Watershed Education for Resilience in Southwest Florida) is an after-school program focusing on habitat change, extreme weather, sea level rise, and saltwater intrusion. Students model the impacts of climate change using a NOAA-funded, decision-support tool developed in collaboration with University of Florida through new K-12 curricular tools that culminate in student action plans. In the first quarter, FGCU faculty drafted new curriculum and convened a meeting of the project's non-profits partners. Plans to deliver a series of educator workshops in November were postponed due to visitor restrictions at the FGCU campus. WATERS is funded by a grant from the North American Association for Environmental Education and the National Oceanic and Atmospheric Administration.

- b. Return on Investment: The projected increase in research expenditures for 2020–2021 reflects a 17% gain over the 2018–2019 baseline. This increase will provide additional research opportunities for undergraduate and graduate students and should result in additional research productivity (e.g., peer-reviewed publications, conference presentations) in the years following. Increased research expenditures will also benefit Florida's economy through purchases made through local and state vendors.
- c. Progress on first-year metric: Progress is being made on Metric 4, which focuses on increasing research expenditures in support of water studies (see Table 2). This metric was selected to document progress during year one of the initiative. During the first quarter, \$273,235 in research expenditures were recorded and \$1.5 million in new grants were awarded to Water School faculty. These data suggest that the \$1 million goal set for research expenditures for 2020–2021 is within reach.
- d. Plan for Second Quarter: As the full impacts of COVID-19 become better understood, we anticipate releasing funds for hiring faculty in the second quarter of 2020–2021. At a minimum, faculty searches will be begun for an eminent scholar position in Marine Conservation Biology and for an assistant professor in Environmental Studies (total recurring ~\$290,250). These positions will be filled for Fall 2021, but start-up costs (up to \$200,000 non-recurring) will be expended during the current fiscal year. The joint position originally planned between The Water School and the Marieb College of Health and Human Services has been put on hold due to a change in College leadership.

III. Please list all year-one metrics and provide any updates from the first quarter in Table 2.

Table 2

Year-One Metric	Status before July 1	Progress on Metric as of September 30, 2020
Metric 4: \$1 million externally funded research expenditures	\$853,504 (2018-2019 baseline)	\$273,235 in research expenditures in support of water research for first quarter. In addition, \$1,532,629 in new grants awarded first quarter.

IV. Please provide any updates or progress (if any) on any other metrics.

<u>Metric 1</u>: STEM degree production at undergraduate and graduate levels. — Complete data for STEM degree production (2020–2021) by The Water School will not be available until Summer 2021. Data from 2021–2022 will be compared to the baseline (2018–2019) to determine attainment of this metric.

<u>Metric 2</u>: Contributions to applied water science and policy. — This metric represents the percentage of total new grant awards that address water science and policy (including education). Data from 2021–2022 will be compared to the 2018–2019 baseline to determine attainment of this metric. Regarding progress made during the first quarter of 2020, 100% of new grants awarded meet this criterion.

Metric 3: Percentage of ranked faculty actively engaged in research. — Data from 2021–2022 will be compared to the 2018–2019 baseline to determine attainment of this metric. Data for 2020–2021 will not be available to determine progress until the end of Spring 2021.

Metric 4: See Table 2 above

<u>Metric 5</u>: Graduate students funded through research assistantships. — Data from 2021–2022 will be compared to the 2018–2019 baseline to determine attainment of this metric. Regarding progress made during the first quarter of 2020, 25 graduate students have been funded through research assistantships.

<u>Metric 6</u>: Number of undergraduate research opportunities supported. — Data from 2021–2022 will be compared to the 2018–2019 baseline to determine attainment of this metric. Regarding progress made during the first quarter of 2020, 46 students have conducted undergraduate research working with Water School faculty.