

Turtle Cove Environmental Research Station
CY 2023 Institutional Effectiveness Special (Annual) Report
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OVERVIEW OF PROGRAM RESOURCES and I.E. TIME-FRAME

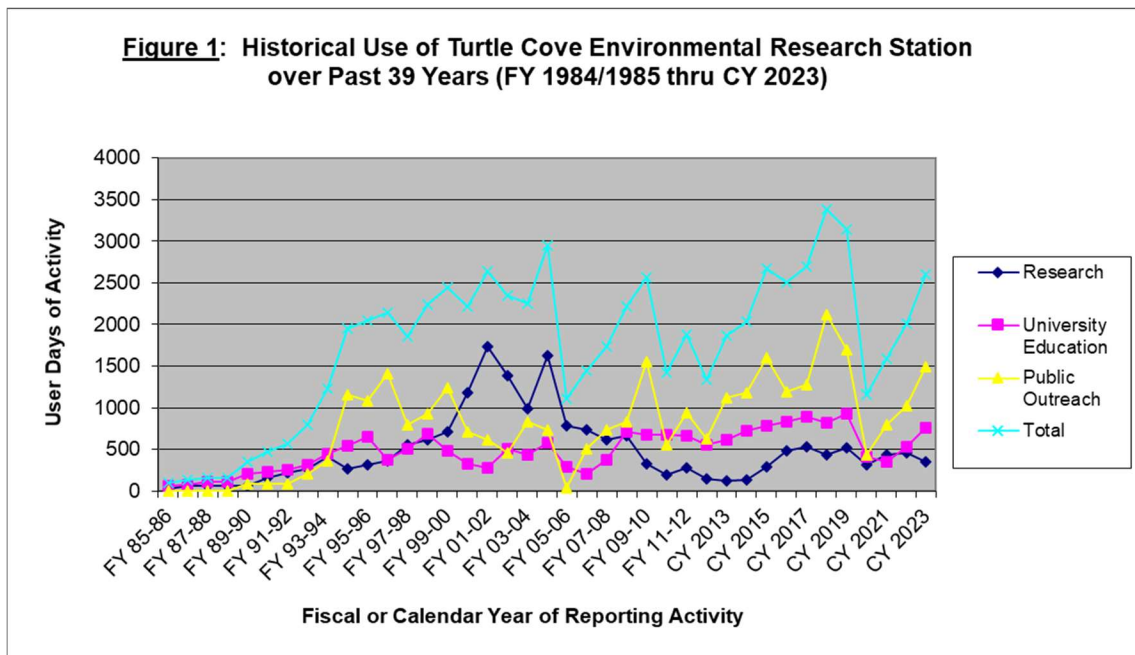
Calendar Year 2023 was the Turtle Cove Environmental Research Station’s 39th year of operation as a program supporting environmental research, university education and public outreach activities for Southeastern Louisiana University and the surrounding regional community it serves. Turtle Cove is a member of the multi-national Organization of Biological Field Stations (OBFS), and is a primary means of access to the Lake Pontchartrain Basin Estuarine System via two primary sites: (1) the Boatshed/Classroom/Parking Complex on Galva Canal in Manchac (built by Southeastern in May of 2005), and; (2) the main Guest House Field Station/Boardwalk/Caretaker Residence on the south-shore of Pass Manchac on the Manchac Wildlife Management Area (WMA) - accessible only via a 20-minute boat ride from the Galva Boatshed. The historic guest house was originally built in 1908 by Mr. Edward Schlieder, a businessman from New Orleans. The guest house, bulkhead, wharfs, boardwalk and Caretaker Residence all underwent a \$6+ million FEMA-funded restoration after Hurricanes Katrina and Rita in 2005. Southeastern has a 99-year lease and partnership with a 25-year option with the Louisiana Department of Wildlife and Fisheries (LDWF) to operate Turtle Cove since 1985.

Turtle Cove “resources” for purposes of annual Institutional Effectiveness (I.E.) reporting includes: the two facility sites and related infrastructure; staff (3 full-time positions and two part-time GA positions); fleet of boats, motors and trailers (including lake skiffs and mud-boats of all sizes and a 40-ft pontoon boat that can transport 35 passengers), and other equipment and supplies (i.e., 20 canoes/pirogues, water quality probes, dip-nets, field-guides, microscopes, computers, satellite-internet service at both sites, and other tangible field research and educational items), all of which support the stakeholders and users of Turtle Cove. Physical exhibits at both Turtle Cove and in the Sims Memorial Library on the Southeastern campus, as well as a documentary video, help showcase to the broader Southeastern community both the history of Turtle Cove and the history of the Manchac Swamp Ecosystem in which it resides.

HIGHLIGHTS OF USE DATA - CY 2023

Calendar Year 2023 (CY 2023) had an overall increase in user-days of activity compared to CY 2022. Although the *Research* program showed a decline in trend of use due primarily to fewer days dedicated to marsh restoration projects, user-days associated with the Lake Maurepas Monitoring project increased by 110% from CY 2022 (110 user-days) to CY 2023 (231 user-days). The *University Education* and *Public Outreach* programs showed a significant increase in numbers (43% and 47%, respectively) and nearly resembled pre-COVID 19 and pre-Hurricane Ida activity. While both programs benefitted from returning visitors post-Hurricane Ida repairs, *University Education* user-days were bolstered from the new course Art and the Environment, which began in Fall 2023 and is expected to continue operating out of Turtle Cove in future semesters.

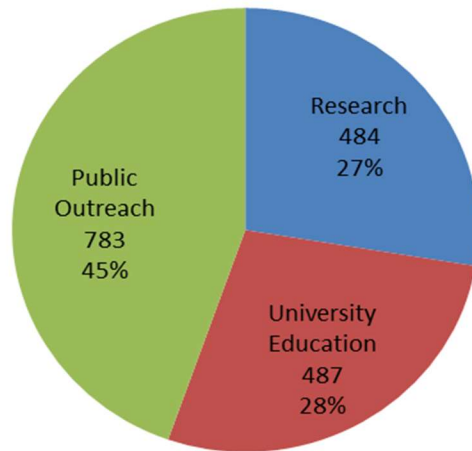
In summary, Turtle Cove resources supported 79 different groups of users, totaling 1,963 different individuals and 2,602 user-days of activity (+29.8% from CY 2022). The *number of different groups, number of different individuals, and number of user-days*, respectively, were as follows: RESEARCH (15, 79, 347); UNIVERSITY EDUCATION (26, 388, 759); and PUBLIC OUTREACH (38, 1,496, 1,496). The 39-year history of use of Turtle Cove from FY 1984/85 (fiscal years were originally used for data collection), is presented in [Figure 1](#) below, in “user-day” numbers.



Note: Hurricane’s Katrina/Rita (2005), Gustav/Ike (2008), Isaac (2012) and IDA (2021) all resulted in long-term closures of the station and associated reduction in use. CY’s 2020 and 2021 were impacted significantly by both the COVID-19 pandemic as well as record Atlantic hurricane seasons, leading to the most drastic year-to-year reduction in use recorded to date (CY 2020).

The breakdown of use among categories over the entire 39-year operating history of Turtle Cove, as well as cumulative totals of Research, University Education, and Public Outreach activities (in terms of User-Days of Activity) is presented in [Figure 2](#) below:

Figure 2: 39-Year Average Annual Use of Turtle Cove per Category: 1985 thru 2023 (based on User-Days of Activity)



Total Cumulative Numbers of User-Days of Activity over 39-Year History of 1984 - 2023:

Research:	18,867
University Education:	18,998
Public Outreach:	<u>30,519</u>
TOTAL:	68,384

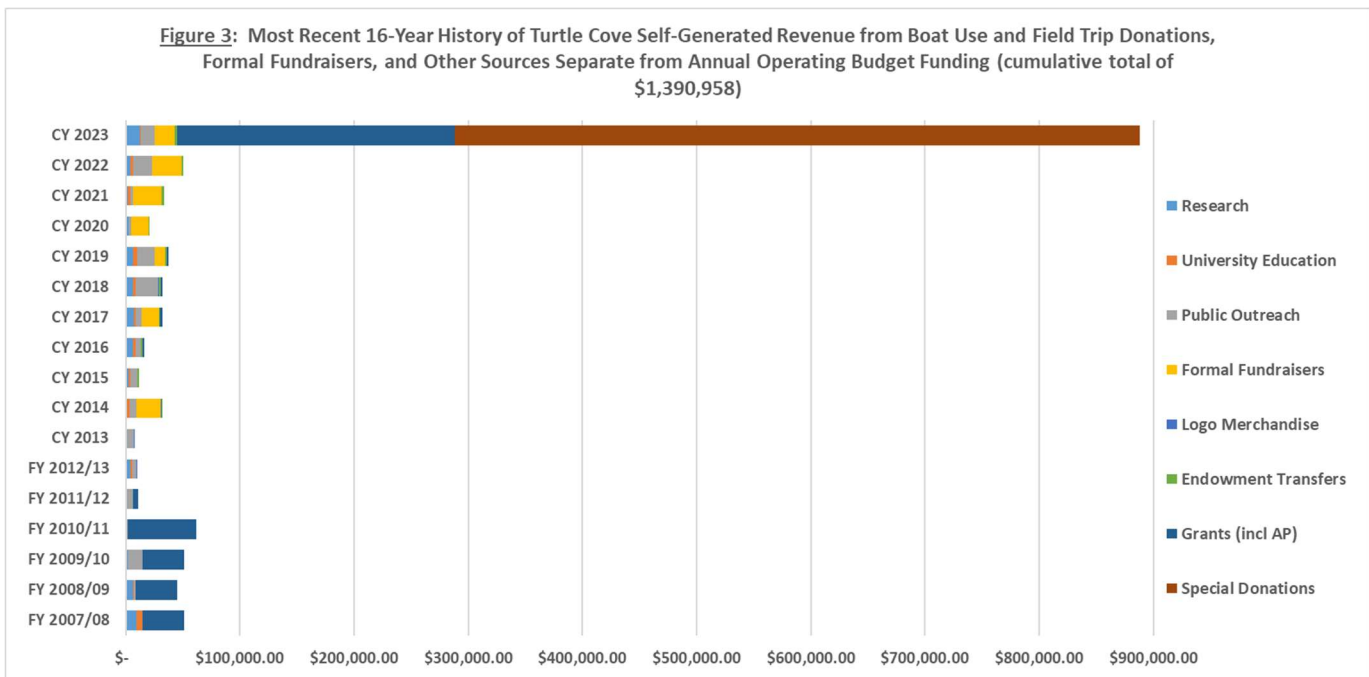
SELF-GENERATING FUNDS and ANNUAL GIVING DAY PARTICIPATION

Turtle Cove continued to emphasize generating funds from sources external to the university’s annual operating budget in CY 2023. A total of \$878,132.50 was generated, which is an all-time record for a single year. A generous anonymous donation of \$600,000, and the annual funds granted from Air Products for the Lake Maurepas Monitoring project (\$233,333) were the highest contributions to the CY 2023 budget. Turtle Cove also participated in the annual “Giving Day,” an on-line fundraiser at Southeastern, for the sixth year and secured \$18,070 in donations. The other categories of non-operating (external) funds generated in CY 2023 included: gas and facility-use donations for researcher-use of Turtle Cove equipment and facilities, primarily from research related to the Lake Maurepas Monitoring activities (\$12,350); a large donation from a local community organization (\$10,000); other Public Outreach groups and individuals (\$2,003); and donations received from field trips and workshops for University Education (\$500). Finally, since 2014, annual transfers are made from three Turtle Cove-specified endowments managed by the Southeastern Foundation—those transferred funds totaled \$1,876.50 in CY 2023.

These external funds were used for the construction and maintenance of boats in our fleet, enhancements to the Galva Canal Boatshed/Classroom, and purchase of a state vehicle. Boat fleet additions and restorations included the construction of new Turtle Cove 30-ft Aluminum Cabin Workboat (completed in early Spring 2024), lower unit replacement on the 22-

ft Aluminum Vee-Hull boat, and motor replacement on the 21-ft Reno Skiff (Black Boat). The Galva Canal Boatshed/Classroom and LDWF office at Galva is now net zero and offers three (3) electric vehicle (EV) charging stations with the installment of a 9.7 kW solar panel system, Tesla wall battery backup, and three (3) charging cords. A new winch/hoist system was also installed at the Galva Canal Boatshed for the deployment and management of buoys associated with the Lake Maurepas Monitoring project. Lastly, funds allowed for the purchase of a truck capable of towing all boats in the Turtle Cove fleet.

Figure 3 below is a graph that represents self-generated funding at Turtle Cove over the most recent 16-year period from all sources outside of the annual operating budget. Going back 16 years coincides with the approximate time-frame that outside funding efforts became more of a focus at Turtle Cove. Note that special donations and formal fundraising events are now categorized separately from other revenue sources since they have become more significant in recent years. Also note that the formal fundraisers in 2014 and 2017 were on-site, whereas those in 2019 – 2023 were on-line as part of the university’s Giving Day program.



SATISFACTION SURVEY

Our overall “satisfaction” ratings for Turtle Cove continue to be very positive based on our annual Turtle Cove *Satisfaction Survey*. We had a relatively high number of 23 individuals who responded to our annual “Turtle Cove Satisfaction Survey,” and of those 17 (77.3%) of respondents rated us a “5” on the question of how “Overall satisfied with Turtle Cove resources” they were. The scale ranges from 1 (not at all satisfied) to 5 (very satisfied) – Four responses were “4” (18.2%), and one response was a “3.” Details of the survey results were as follows: 1 (0.0%); 2 (0.0%); 3 (4.5%); 4 (18.2%); 5 (77.3%); N/A (0.0%); n=23. These figures are comparable to all prior year’s annual satisfaction survey results which started in CY 2012. All of the narrative responses were also very positive regarding “satisfaction” with scheduling and use of boats and facilities, infrastructure, educational/outreach programs and staff.

BOATING SAFETY

Finally, and as always most importantly, another year of work was conducted in a water based-environment at Turtle Cove without incident in terms of health and safety issues (i.e., “boating safety”) for all users of Turtle Cove resources, including university faculty, staff and students, as well as others from the surrounding communities who participated in our programs. This is always our most important measure of success at Turtle Cove each year.

CONCLUSION

Overall, Turtle Cove had an extremely successful year in terms of increased user-days, record-breaking external funds, and enhancements to facilities and resources. Research activity associated with the Lake Maurepas Monitoring project showed a massive increase from CY 2022, and is expected to continue expanding in CY 2024. The University Education and Public Outreach programs are steadily recovering from Hurricane Ida damage to facilities in CY 2021, and all programs will continue to benefit substantially from funds garnered in CY 2023. These external funds have already allowed for major additions to Turtle Cove such as the installation of the 9.7 kW solar panel system and winch/hoist at the Galva Canal Boatshed/Classroom, and construction of the new 30-ft Aluminum Cabin Workboat.

However, significant repairs to the Turtle Cove ERS located on Pass Manchac are still required. Necessary repairs include roof replacement, construction of a new boardwalk, and replacement of portions of the dock and water-damaged ceiling. Additionally, boardwalk markers, first floor restrooms, and debris collection in the marsh behind the facility will also need to be addressed. These projects are expected to commence in CY 2024 and may temporarily disrupt normal tour itineraries, but we do not expect any negative impacts to the increasing activity trend in the University Education or Public Outreach programs. We plan to fully continue normal operations and implement some additional measures to ensure our positive trajectory.

The Turtle Cove Environmental Research Station is a facility and program of Southeastern Louisiana University that is rich in community pride and productive history, and now, more than ever, an on-going staple of environmental research, university education and public outreach--- as well as an important example of resiliency and adaptation--in the region that we serve. For more information on all our programs, please visit our website at: www.southeastern.edu/turtlecove.