

11-1-2014

## Fall Update: See What We've Been Doing

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### Recommended Citation

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# Eyes on the Rise

## Fall Update: See What We've Been Doing

NOVEMBER 1, 2014 / TED GUTSCHE / 0 COMMENTS

FIU Hosts Sea Level Rise Event on Miami Beach



Below is text related to the required October Interim Report for the Online News Association, which we submitted on Oct. 28, 2014. Take a look!

**Explain how you are testing your hypothesis for your live news experiment. Be specific.**

Our hypothesis for this project is that “crowdsourcing and community engagement will increase viewership and participation in public discussion related to rising seas.” We are currently working on the second part of that hypothesis – increasing community and media participation in public discussion about sea level rise in South Florida. We are testing this component of the hypothesis through collaborative classroom engagement between School of Journalism and Mass Communication students – including students majoring in Broadcast and Journalism, Digital Media Studies, Advertising and Public Relations – and 190 high school students who attend MAST @ FIU, which is based at Florida International University.

Our testing of crowd hydrology, a type of crowdsourcing related to water issues, began in the Summer semester with two classes – one that focused on building the mission and objectives of the project’s website [eyesontherise.org](http://eyesontherise.org); components of another summer course that was focused on developing initial content for the website to build a foundational understanding of sea level rise in South Florida. A large component of building awareness among student journalists, local media, and community members is the use of “South Florida’s Rising Seas,” a documentary produced by two of our team members, which aired earlier this year on WPBT2, our media partner. See the documentary at [eyesontherise.org/213-2](http://eyesontherise.org/213-2)

In order to test this component of the hypothesis, we are using five courses in the fall semester to expand the content that is being created for our website, [eyesontherise.org](http://eyesontherise.org), some of which will be aired on the website of our media

partner, WPBT2. Such content will appear in a 30-minute program in spring or summer, as well as in other local media, including the Miami Herald and the Miami New Times. Already, building awareness through branding has also allowed students to plan and execute public events and garner media attention that will provide the project legitimacy and recognition for helping WPBT2 build an audience for the spring/summer programming. We discuss the measurable outcomes – and expected outcomes – in questions below.

The next phase of our project will extend testing of crowdsourcing hydrological and geographical information. With participation from our students and our community partners, we are building a Climate Risk Toolbox app to help residents of South Florida better understand and document the potential impact of sea level rise on their homes and businesses. Our app includes a crowdsourced data collection tool where citizens may document flooding in South Florida, a side-effect of climate change that is under-reported (as our independent research suggests); and a visualization of increasing heights of sea-level rise at the level of an individual address. Residents may also view flooding reports from other citizens and local government agencies and monitor the schedule of high tides when flooding is more likely to occur. Our plan is that by engaging the community through our efforts to introduce crowdhydrology that we will be able to drive traffic not only to our website where user-generated data will appear in journalism and in databases, but to our local media partner, which will feature community storytelling about rising seas that is based on user data.

### **Has your initial hypothesis changed? If so, why?**

We have not changed our initial hypothesis, but we have clarified meanings within the hypothesis. Thus far, we have combined “crowdsourcing” with the idea of “crowdhydrology” as a means to further legitimize and solidify the process as a means to reinforce the community engaged components of

gathering and interpreting data via citizen science related to flooding, water quality, and infrastructure that is affected by rising seas. We also have clarified among ourselves our understanding of audience in terms of “viewership” and “participation.”

When we began the project, we were interested in traditional audiences – those who would turn to social media and legacy media to receive and engage with the news. While that is still a focus of our project, we have broadened the notion of audience to include our students, community partners, and those who engage with this project outside of news. In other words, we are focused on creating journalism with our media partner that will result in an increase of programming audiences, but we are also interested in the civic nature of news-making in this project – the audiences who come to learn about the science and communication processes inherent in public discussion and dissection of sea level rise. With this clarification in mind, the presentation of information related to the ONA grant, as well as the community partners and individuals involved in this project, serve as moments of learning and engagement in and of themselves.

In this way, “viewership” includes those who have viewed the nearly 40 pieces of audio, print, and video coverage that we have received beyond that of our media partner, including in the Spanish-language *El Nuevo Herald*, a sister paper to the *Miami Herald* ([eyesontherise.org](http://eyesontherise.org) received credit for some of this work, including in *El Nuevo Herald* and the *Miami Herald*). Media attention of our project has appeared on NBC’s *TODAY* show, the Weather Channel, and in local media, including ABC10, NBC6, WLRN local public radio, WPBT2 local public television, and many other print and online outlets. Such media attention, which we attract through engaging in crowd hydrology, citizen science and sensor journalism in public settings, serves as a moment of community engagement with information and citizen science. Our audiences, therefore, also include those who attended a press conference and a sea level rally that we sponsored in fall semester but who may not turn

to the news for coverage of the press conference, for example. We know that while we encourage citizens to turn to the news products that our media partner and we create, not all will view the final iteration of those products. Therefore, if we can also view the construction of news during a press conference, including one-on-one interactions with members of the media and of the public during that time as a means of both information-gathering and information-delivery, our audiences expand beyond what can be captured by computer analytics and these messages also engage the public in ways that may encourage them to become stakeholders in news-engagement. The concept of viewership also extends to the use of our app, which can be used on computers, laptops and smartphones. We have also found that many of our students who are involved in our projects return home to share what they have learned about communication and sea level rise with their friends and families.

**Were there any major changes in the project activities and timetable?  
What caused them?**

We have maintained our timeline of activities and progress, which will be shared in more detail in following questions. Major alterations in project activities center around the involvement of a new community partner – MAST @ FIU, a Miami-Dade County public school focused on science, technology, and innovation that is housed at FIU. High school students have been working with our journalism students in the fall semester to create media related to sea level rise and to build relationships for further collaboration in spring related to public events that will educate the community about crowdhydrology and sea level rise.

Project activities and outcomes already include:

- 1) The production of content related to local issues of sea level rise in

summer 2014. College students in three classes produced and published sea level rise content and environmental journalism in partnership with our community collaborators, including NASA. Students also operated as an organizing force, designing and implementing our project's mission statement, measurement goals, and editorial mission. See [eyesontherise.org/mission-goals](http://eyesontherise.org/mission-goals)

2) Student-led planning and execution of a Sept. 29, 2014 Sea Level Rise Rally in which 220 people (including 190 MAST @ FIU high school students) attended. This activity was both an orientation to the planned King Tide Day events, discussed below, and a launch of [eyesontherise.org](http://eyesontherise.org). The event was live-streamed and yielded 99 views on YouTube as of Oct. 12. See [eyesontherise.org/ktd](http://eyesontherise.org/ktd)

3) Student-led building and testing of coqui water sensors ([pvos.org/coqui](http://pvos.org/coqui)) that were purchased with grant money for use to measure flood waters on Miami Beach Oct. 8 and Oct. 9. The coqui is a portable sensor that measures the salinity of the water. Several classes of college and high school students spent much time and energy understanding the engineering of the sensors, as well as the effective means to communicate the results. It was a great opportunity to involve Lily Bui from MIT and Don Blair from Public Lab via Skype to guide the students and make connections with tech communities outside of the classroom. Blair wrote, "...thanks for what you've done already to push the Coqui project forward, and looking forward to hearing more about what you do with the kit (or add to it, which would be exciting!) in the future." To view the rally, see [eyesontherise.org/sensors2](http://eyesontherise.org/sensors2)

4) Two field days of testing the sensors on Oct. 1 and Oct. 2, which took place in the School of Journalism and Mass Communication as well as out "in the field" at the FIU Biscayne Bay Campus. Two additional days of testing on Miami Beach included Oct. 8 and Oct. 9. These days not only allowed students to further calibrate the sensors but to talk with media about the

effects of sea level rise and the need to understand the effects of climate change via sensor journalism. Media attention of the collaboration appeared on NBC's TODAY show, the Weather Channel, and in local media, including ABC10, NBC6, WLRN local public radio, WPBT2 local public television, and many other print and online outlets. These opportunities allowed students to explore how the sensors work in the field, but also allowed the student to become trained how to communicate journalistically about sea level rise and the data that they were collecting and to prepare how to speak with members of the media covering the public events.

5) Students were able to meet Environmental Protection Agency (EPA) Administrator Gina McCarthy and U.S. Senators Bill Nelson of Florida and Sheldon Whitehouse of Rhode Island who attended a School of Journalism and Mass Communication press conference on King Tide Day (Oct. 9) about sea level rise. From this experience, students furthered their communication skills about climate change and sea level rise, and expressed their excitement about the FIU-MAST @ FIU collaboration. These activities provided an opportunity for local and national discussion about sea level rise – one of the main purposes for our project. For a review of the King Tide Day events, see [eyesontherise.org/rktd](https://eyesontherise.org/rktd); For media coverage of the public events see, [eyesontherise.org/media-coverage](https://eyesontherise.org/media-coverage).

6) Our collaboration with our community partner, The CLEO Institute (Climate Leadership Engagement Opportunities), also awarded our college and high school students an opportunity to meet other outstanding, environmentally engaged high school students from several other Miami-Dade Public Schools, as the groups worked together on Oct. 9 to test flood waters and communicate with the press and public officials. CLEO also provided a panel discussion at the end of the King Tide Day event to debrief; the audience consisted of 40 MAST @ FIU students, 15 high school students selected by The CLEO Institute to participate in the day's events. (More about MAST @ FIU is discussed in the following questions.) Panelists



included: George Cavros, Florida Energy Policy Attorney, Southern Alliance for Clean Energy; Dr. Brian Haus, Professor, University of Miami Rosenstiel School of Marine & Atmospheric Science; Mayor Cindy Lerner, Village of Pinecrest; President, Miami-Dade County League of Cities; René M. Price, Associate Professor, Florida International University, School of Environment, Arts & Society; Adrianna Quintero, Senior Attorney, Natural Resources Defense Council.

7) Our team is preparing a content analysis of five years of news coverage related to sea level rise in South Florida. Our first stage of the project, which focuses on one year of news coverage of flooding, will be ready for the November International Communication Association conference submission deadline. The next stage of analysis will be conducted in early 2015. We also have plans to seek IRB approval for focus groups with MAST @ FIU and School of Journalism and Mass Communication students to assess the press coverage of climate change and sea level rise issues that stemmed from the Fall semester's activities, events, and student journalism. This project would begin in late 2014 or early 2015.

8) We are planning Media Party Miami in February 2015, a sister event to the annual Hacks/Hackers Media Party held in Buenos Aires. Hacks/Hackers is an international organization that brings together journalists and technologists in communities around the world. Our students will have an opportunity to present some of the outcomes from our efforts at crowdhydrology, including mapping, multimedia packages, and other reporting projects they have completed in connection to this grant. The event will culminate in a public hackathon, which will focus on climate change and environmental science. See [eyesontherise.org/hackathon](http://eyesontherise.org/hackathon).

9) We have been able to expand the branding of our project to grow community and media awareness to the journalism being produced related to the ONA grant through the use of a logo created by a recent graduate of the

School of Journalism and Mass Communication. We found her ability to design a logo motivates other students to become involved. Additionally, students are motivated that one of their fellow students is involved as an Advisory Board Member for [eyesontherise.org](http://eyesontherise.org), which is useful in setting our goals and initiatives. These efforts put students first in the construction of this project.

**Please include updates to your timeline. Please indicate milestones that were achieved, as well as those delayed or missed.**

Summer 2014: Recruit students; meet and plan with GIS Dept., WPBT2, South Florida Water Management District personnel, and other community partners. SJMC and GIS Dept. develop Web GIS course. (Achieved)

MILESTONE: The summer included student journalism that provided a publication platform upon which Spanish-language journalism that was created by a School of Journalism and Mass Communication graduate student appears. To view the Spanish-language journalism, see

[eyesontherise.org/en-espanol](http://eyesontherise.org/en-espanol)

Fall 2014: SJMC and GIS Center instructors begin co-teaching Web GIS course. (Achieved) MILESTONE: We deepened relationships not only with the local tech community through our community partners such as Hacks/Hackers and Code for Miami, but also by being one of the first schools to test coqui sensors ([pvos.org/coqui](http://pvos.org/coqui)) and to Skype-in tech experts from Public Lab and MIT. This milestone provided students with an opportunity to meet with national experts on sensor journalism and to gain exposure and affirmation for their work.

September 2014: Students and faculty met with WPBT2 and community organizations to assess where coverage of sea level rise could be strengthened, and communities where more information about sea level rise

would be helpful; assessment guidelines will be established. South Florida Water Management District personnel work with instructor to begin mining of data and app development. (Achieved)

October 2014: Students and faculty present reporting ideas to WPBT2; students begin assessments of journalism messages; research project on content analysis nears completion; team prepares for IRB approval for focus groups with students. (Achieved)

November 2014: We are stress-testing our flood documentation tool from the Climate Risk Toolbox app by using it to crowdsource photos, videos and stories about Election Day (Nov. 4) in South Florida and with collaborators across the country.

December 2014: Students present their projects, including and short videos, to WPBT2, SFWMD and other community partners to prepare for Spring 2015; if approved, perform focus groups. (Update: These prototypes will include the initial stages of the Climate Risk Toolbox app, an app and web-based, interactive database of flooding information for citizens. For more information on the app, see [eyesontherise.org/app-development](http://eyesontherise.org/app-development))

Spring 2015: One undergraduate journalism innovation course focused on app development pairs with investigative journalism course; content analysis work continues. (Update: Investigative journalism course will operate as visual storytelling with focus on investigative methods of reporting and assessing media outcomes. Four faculty members will teach seven courses that will focus on sea level rise.)

January 2015: Students meet with local communities with which they will work. (Update: Events this month will include a release of the flooding app. For more information on the app, see [eyesontherise.org/app-development](http://eyesontherise.org/app-development))

February 2015: Students will present final projects and public workshops to WPBT2 and community partners. (Update: Events will include a public hackathon that will be part of a global media party hosted at Florida International University's School of Journalism and Mass Communication in collaboration with our media partners Hacks/Hackers and Code for Miami. For more information on a similar event, see [mediaparty.info/2014](http://mediaparty.info/2014))

April/Summer 2015: Faculty and students present workshops to WPBT2 and other local news organizations about lessons learned, tools used, etc. Faculty members submit research reports to academic conferences, journals, and popular publications. (On schedule; Update: We plan to combine our annual spring Hearst Lecture series, with our annual Communication Week to create a program on sea level rise awareness. This will allow us to bring in special guests for a panel discussion, to be hosted by John Englander, author of High Tide on Main Street [and narrator of the "South Florida's Rising Seas" documentary].

**Describe any setbacks you've encountered and how you've addressed them.**

There are several setbacks on initiatives we have started, which we are still trying to address.

1) We attempted to involve the community in our news production through the use of a Readers Board, an email list of interested citizens and officials who would help critique our journalism related to sea level rise. We have two members of this Board now, but hope that when more journalism is produced with WPBT2 that we can engage with audiences in this manner. See [eyesontherise.org/advisory-readers-boards](http://eyesontherise.org/advisory-readers-boards)

2) We also attempted to engage with audiences with an Online Story Budget.

This budget not only helps us organize the stories we are interested in producing related to the project, but also is to help journalists come up with ideas related to sea level rise that they can report. We have not been able to measure this success. See

[docs.google.com/spreadsheets/d/1T6MnqGJYh3ztZEEGwD-oM1qkHs8PI\\_iIVK-kAHrIYv8/edit#gid=0](https://docs.google.com/spreadsheets/d/1T6MnqGJYh3ztZEEGwD-oM1qkHs8PI_iIVK-kAHrIYv8/edit#gid=0)

3) We have experienced challenges related to institutional support, specifically with the limited staff and financial support (outside of the grant) to organize and publicize our events and journalism related to sea level rise. In South Florida, sea-level rise and climate change are politically sensitive issues, even in Miami where residents directly experience its effects through increasingly more frequent flooding, and we have had to build disclaimers into the content and present the information very carefully, due to potential liability issues.

These challenges – or “setbacks” – are also included, to some degree, in what we have discovered through this experience, and which we discuss below.

### **What have you discovered? Any surprises?**

We have discovered several surprises in our first six months, which include:

1) We underestimated the interest of community and media partners that would want to participate in our journalism project. We have since collaborated with SciStarter.com, Public Lab, MIT, MAST @ FIU, National Geographic, the Miami Herald, the Miami New Times, FIU External Relations, the City of Miami Beach, the National Resources Defense Fund, the Environmental Protection Agency (EPA), the Washington Post, NBC’s TODAY show, and the ALTA Systems tech company in Miami.

2) We are surprised by how many of our students who are involved in our projects tell us about sharing what they have learned about communication and sea level rise with their friends and families. This is an unintended outcome that has advanced the scope of audience and community members being educated about this topic.

3) From this experience, we have become concerned with how such work is represented in tenure and promotion policies, the limited opportunities with WPBT2 in terms of the own organizational staffing challenges, the overall amount of work related to taking on such a complex science and social issue such as sea level rise, the vast number of voices involved in building ideas and products to the degree that organizational and time management skills are a must, the potential challenges in furthering intellectual property within community collaborations, and the role of program evaluation when dealing with so much experimentation.

4) We have had more initial success gaining citizen attention and engagement in sea level rise through our curriculum innovations rather than our media partnership. The King Tide Day event we created to spotlight our students' work with sensor journalism drew a substantial amount of media attention and brought the Administrator of the EPA and two U.S. Senators to Miami Beach to discuss sea level rise. Our media partner, WPBT2, provided us with a 15-minute segment on their weekly half-hour "Issues" program to discuss our student engagement with sea level rise around King Tide Day.

See the program at [youtube.com/watch?](https://www.youtube.com/watch?v=ZK7MzHflaFA&feature=youtu.be)

[v=ZK7MzHflaFA&feature=youtu.be](https://www.youtube.com/watch?v=ZK7MzHflaFA&feature=youtu.be)

**Describe how you are collaborating with your media partner. Has the collaboration worked differently than you first described in your application?**

As our collaboration with WPBT2 continues into its second phase, we are working on student-produced content to be hosted on their digital and broadcast platforms. The collaboration has been expanded beyond local public television to include media attention from local, regional and national media, all of which buttresses our original goal of bringing more attention to sea level rise. We have been asked by several media outlets – including the Miami Herald, the Washington Post, and the Miami New Times – to provide student-produced video and photographs related to sea level rise; each of these outlets has published such student work. See [eyesontherise.org/media-coverage](https://eyesontherise.org/media-coverage)

**Describe the news sharing and delivery process with your local media partner.**

Once our video projects for WPBT2 are completed by December, we plan to get back on WPBT2's "Issues" program with our student reporters to discuss their discoveries as young journalists as they investigate this topic. Efforts will be made to make this in itself a news event, and we will collaborate with WPBT2 to get as much promotion as possible for the student videos which will first be aired on the channel's YouTube site under a special sea level rise title. We find the chances for students to talk about their reporting as a benefit to the media partner as content, but also to expand upon the transparency of the journalism being created and shared. Indeed, we have been open about the journalistic efforts of the project, including the use of our grant dollars, which we publish on a publically available budget. See [eyesontherise.org/funding](https://eyesontherise.org/funding)

**Is your collaborative team made up of the same members in your application? If it's different, who is new on the team or who has dropped off,**

## **and why?**

We have retained all of our original team members and community partners, including them in monthly (sometimes weekly) updates on the project and continuing constant communication about their specific roles. In Fall 2014, we added MAST @ FIU, a public high school of 190 students located at FIU's Biscayne Bay Campus, as a community partner. To meet our goals in this journalism education grant we wanted to take advantage of the proximity to these students. MAST is a high school that focuses on science, math, and technology. The school also has at least one journalism class of 30 students running at a particular time, and we see this grant (and possible future funds) as a means to increasing collaboration – and learning – between high school and college students, which we believe is an innovative alteration to traditional college journalism education. Additionally, we have at least a dozen faculty members and students from the School of Journalism and Mass Communication to visit MAST @ FIU classrooms in fall and spring to further our collaboration on environmental journalism related to sea level rise; MAST students are also spending more time in SJMC classrooms, working with college students on media production.

## **What technology platforms are you using with your local media partner?**

Our students and community and media partners are using open-source tools and public data to develop the Climate Risk Toolbox App, which will 1) help inform citizens of South Florida about the impact of sea level rise on their homes and businesses; 2) provide a tool to document flooding, which is under-reported in South Florida; 3) let citizens view flood reports from a variety of sources; and, 4) inform them of tide levels, a phenomenon that is also related to flooding. A large number of people from multiple disciplines have contributed to producing this app: the FIU GIS Center is primarily responsible for writing the software; our students, members of Code for



Miami and members of Hacks/Hackers Miami have contributed to the features and the design of the app; Code for Miami, Hacks/Hackers Miami and the South Florida Water Management District have provided data and information resources for the app; our college and high school students and our community partners as a whole have contributed to the testing of the application.

**What are you learning from the collaboration process with your local media partner?**

As discussed earlier, our collaboration is moving into its second phase as we develop content for our media partner. However, we have learned that our work has garnered more media attention, beyond that of local public television, and that we are also able to disseminate our own media. WPBT2 has an audience of well-educated civic leaders and once we have more video content for WPBT2, we need to work hard to use their outreach and promotional efforts. We've learned that the average citizen is not well informed about sea level rise, and we believe that once WPBT2 viewers have a better grasp of the topic, they will be very active in expanding this information and in broadening the political discussions on a local level. Indeed, we have taken the "South Florida's Rising Seas" and our King Tide Day activities to a national audience as we continue to educate South Florida itself.

**Describe any setbacks you've had with the collaboration process, if not already described above.**

We see our setbacks as opportunities to move forward with an expanded reach of media partnerships, in part because we have been successful at

publishing media related to sea level rise outside of our primary media partner (WPBT2), which will allow for us to better target our audiences in terms of media partners and their viewers/readers/users.

### **How are you measuring your hypothesis? Has anything changed from your application?**

One of our goals has been to attract audiences to public discussion about issues of sea level rise in South Florida. As we discussed in the above questions (and as we had planned in our initial grant application), we have clarified our understanding of audience in terms of “viewership” and “participation” to include media coverage of sea level rise and grant activities. Measurements of these outcomes (as discussed above and as defined in our initial grant application) include:

1) Our work has received nearly 40 pieces of audio, print, and video coverage beyond that of our media partner. Media attention of our project has appeared on NBC’s TODAY show, the Weather Channel, and in local media, including ABC10, NBC6, WLRN local public radio, WPBT2 local public television, and many other print and online outlets.

2) Twenty students in two multimedia classes in the School of Journalism and Mass Communication in fall 2014 produced the first of two 30-minute news segments on water issues, particularly surrounding sea level rise and student/community science efforts with our project and MAST @ FIU. Said one student, Stephanie, who worked on the project, “[It] was an incredible opportunity that allowed us to dive into an issue that literally surrounds us every day; especially here in South Florida,” she said. “Whether for drinking, transportation, or being the host to other ecosystems, water is truly the elixir of life and is a matter that must always be taken into account.” See their work at [eyesontherise.org/h2know](http://eyesontherise.org/h2know)

2) Recognition for team members Kate MacMillin and Juliet Pinto who received Best Short Documentary Film for “South Florida’s Rising Seas” at the DocMiami international film festival on Sept. 13.

3) According to WPBT2, the documentary has received 17,500 views on WPBT’s YouTube between January 2014 and the end of October 2014 and 12,000 views on WPBT’s website during the same period. WPBT2 says that the documentary is “the highest viewed program online from January through October.

4) As of Oct. 25, 2014, the project website, eyesontherise.org, has received 5,492 views since the site went live in June. We received 800 views in July when we launched the site and again in September (1,406) when we launched most of the project’s public events and journalism, beginning with an announcement of our Sept. 29 sea level rise rally and Oct. 9 event (182 visits on Sept. 29; 183 on Sept. 30). In sum, October received 2,687 visits, as of Oct. 25, beginning with visits related to our participation in a regional climate change summit (219) and the testing of water sensors by high school students in preparation for King Tide Day journalism (162 on Oct. 2 and 189 visits on Oct. 3). Other major visits appeared on days we published content related to our collaboration with a tech partner (219 and 177) and the events of King Tide Day (279 on Oct. 8; 359 on Oct. 9, and 133 on Oct 10). Web visits have slowed since Oct. 10 and is expected to be low until our next round of content.

5) While we are early in the media production component of the project, student video reports related to sea level rise have garnered some attention, which we hope will grow as the project continues. Examples of student work loaded on YouTube and linked via our website include: an animation on salt water intrusion (317 views); sea level rise rally (115 views); and eyesontherise.org backgrounder (40 views); a piece on the plight of septic tanks as water rises (50 views). Specific pages also received significant views:

a post about King Tide Day (695); October 9 King Tide press conference (359/87); Report a Flood page (168); Eyes Team page (163); documentary (111); classes (111); app development (57/67); Spanish-language (24).

6) By the end of October, our Twitter (@SLRSoFla) audience has accumulated 146 followers since late summer; we have followed 356 users; we have 475 tweets; we have been added to four lists.

7) More than 50 people attended a panel on sea level rise and King Tide Day events on Oct. 9.

8) Nearly 100 people attended a ONA-funded press conference related to King Tide Day on Oct. 9.

9) Thirty of the MAST @ FIU students participated in a workshop in September to learn about ways to communicate issues of climate change and sea level rise, which was led by The CLEO Institute.

10) We have used the ONA grant as an opportunity to add at least two new classes to the course book at the School of Journalism and Mass Communication related to journalistic GIS mapping and web publishing.

### **Describe how students are learning through this process.**

Students are learning through a host of community collaborations and curricular innovations, which include:

1) Juliet Pinto's magazine course that produces the SJMC alumni magazine, BayView. In this class, students reported on Eyes on the Rise and environmental communication for its third issue that is slated for publication in January 2015. Additionally, Susan Jacobson is teaching WebGIS for Journalists, a new FIU class made possible by this grant. It combines coding

skills with basic instruction in GIS and interactive WebGIS production. Students produce a journalistic multimedia package as a final project that includes 800 words of text, three multimedia elements and an interactive mapping component on the topic of sea level rise, climate change or environmental science. Jacobson is also teaching a Digital Publishing Workshop, a class focused on learning advanced Web production skills for journalists. During the Spring 2015 semester students will produce final projects on the topic of sea level rise, climate change or environmental science.

2) Students in several classes are working on geographic crowdhydrology reporting in which they use an early prototype of our Climate Risk Toolbox app to report flooding incidents around South Florida. The reports are then combined into a database used by WebGIS students to map the flooded areas. Reports will also be used to populate a flood report database for the Climate Risk Toolbox app, another learning opportunity and outcome associated with the grant. This Climate Risk Toolbox App is currently being built by students in several classes, as they work on the design and testing of this app, which will help inform citizens of South Florida about the impact of sea level rise on their homes and businesses. The tool will document flooding, which is under-reported in South Florida; let citizens view flood reports from a variety of sources; and inform them of tide levels, a phenomenon that is also related to flooding. Our partners, including the FIU GIS Department, Code for Miami, Hacks/Hackers and the South Florida Water Management District, have all provided resources for this project. Said Naomie, an SJMC student, "Learning how to do journalism related to the environment required a ton of research, as does doing journalism for any topic. The difference with the sea level rise events was the fact that I was able to perform experiments, learn about the necessary tools that are needed to perform these experiments and use data to decipher potential results. Participating in the sea level rise events as a journalism student taught me that journalism is not

just about informing the community about an issue or a topic. We can instruct the community on what they can do to delay the effects of sea level rise. We not only inform but we can cause action.”

3) Kate MacMillin’s class is producing at least seven video projects (some can be broken down into three or four segments) on sea level rise to be posted on WPBT2’s (our media partner) Youtube Channel. Topics include: 1) Real estate (agents and owners) in Key West; 2) Saving the Everglades during a time of sea level rise; 3) Capturing the events of King Tide Day activities; 4) How underserved neighborhoods such as Broward County’s historically black Sistrunk neighborhood are coping with flooding; 5) Effects of sea level rise on Miami Beach businesses and government; 6) Designing future architecture for sea level rise; 7) How the effects of Hurricane Sandy (as a tropical storm in South Florida) led the Fort Lauderdale Public Works Department to prepare for future weather events. One student reports that “[t]he experience has been incredible and empowering. The fact that with the journalistic insight that we have gathered over the course of this experience not only has broadened our knowledge but also give us the necessary tool to provide in-depth coverage of such an important issue to the community.”

4) Robert Gutsche has led the team’s collaboration with community partners MAST@FIU, a public high school located on FIU’s Biscayne Bay Campus. Multimedia Production course partnering with MAST @ FIU high school students to promote their work on sea level rise and other educational ventures. Students are in high school classrooms and invite high schoolers to college classrooms to experience various forms of instruction and mentorship. Said one SJMC student, Kristopher, about his experience working with high school students on King Tide Day, “It was also enriching to work with high school and FIU students in order to gain an understanding of their attitudes and knowledge about climate change and what they intend to do or believe should be done about it. Oftentimes, in class interactivity and dialogue between students is limited and forced through group projects

nobody wants to work on. So it was great to work and talk with other students in the field about the global issue of climate change where the impacts of climate change were actually being witnessed first hand. One MAST@FIU student, Saad, told us: "I think this collaborative project is what we need as a school. Already being inside a university, it's natural to have these interconnected projects. It provides a new kind of hands-on experience." Said another student, Noe, "I feel like getting help from university professors and from MIT provided us with information that's fresh and from a peer group that's not biased by an older person who might not share our perspectives on the world. It really gives us an understanding that's coming from a peer who can relate to us."

### **Describe any changes with how your project will be evaluated and shared.**

Evaluation and sharing of the project already includes:

1) Kate MacMillin presented "Special Screening: 'South Florida's Rising Seas,'" as part of the "Eat, Think and Be Merry Series," hosted by FIU's School of Environment Arts and Society on April 8, 2014. She also attended a Climate Change Meeting presented by League of Women's Voters in Fort Lauderdale at Florida Atlantic University in early April. One of MacMillin's Writing for TV students and eyesontherise.org Advisory Board Member, Abel Fernandez, produced a story in April on a Stempel School of Public Health and Social Work event, "Snorkel-In," which was related to sea level rise and the health issues surrounding it. The piece aired on WLRN's Web site and on the Stempel Web site. See the video at [vimeo.com/93409989](https://vimeo.com/93409989)

2) The eyesontherise.org project was the focus of an April 27 presentation of "South Florida's Rising Seas," a documentary produced by team member's Kate MacMillin and Juliet Pinto, in Miami's Wynwood district. The presentation was held by the Environmental Coalition of Miami and the

Beaches and Miami Biennale@Print Shop. The two team members have also been involved with a joint FIU-Miami Beach brainstorming on sea level rise and beach nourishment. Broadly, the city is interested in finding ways to adapt to sea level rise and storm surge as well as consider how beaches might best be preserved.

3) Susan Jacobson's participation of "Robust Decision Making Under Deep Uncertainty," held by the South Florida Water Management District (a community partner) on September 5, 2014. Jacobson also attended DBHydro Orientation hosted by South Florida Water Management District, July 31, 2014.

4) The content analysis, *American Atlantis? News Coverage of Flooding and Sea Level Rise in Miami*, submitted by Susan Jacobson, Juliet Pinto, Kate MacMillin, Ted Gutsche, Natalie Bobb to the 2015 ICA Environmental Communication Division.

5) Robert Gutsche's participation in the panel, "Music, maps and mold: Updates from the 2014 Challenge Fund Winners," at the Online News Association 2014 Conference in Chicago in September.

6) The participation of Susan Jacobson, Kate MacMillin, and Juliet Pinto at the the Sixth Annual Southeast Florida Regional Climate Leadership Summit in Miami Beach, Florida on Oct. 1 and 2.

7) "The Art of Video Communication: A Documentary on Sea Level Rise in South Florida" presented by Kate MacMillin as part of the conference "Art Works: Cultural Agents Tackle Urgent Social Challenges" at Florida Atlantic University on Oct. 6.

8) The eyesontherise.org team's submitted panel abstract for The Conference on Communication and Environment (COCE) titled "Communicating to Diverse Audiences Vulnerable to Impacts of Climate



Change: Scholarly and Professional Journalism Bridging the ‘Climate Gap.’” Proposed panelists include FIU’s Juliet Pinto, Susan Jacobson, Kate MacMillin, Robert Gutsche, Jr., as well as Manuel Chavez, Associate Professor, School of Journalism, Michigan State University, and Mercedes Vigon, Associate Professor, in the School of Journalism & Mass Communication at Florida International University. Others include Bruno Takahashi, Assistant Professor, School of Journalism, Michigan State University and Raul Reis, Dean of the School of Journalism & Mass Communication, Florida International University. Eyesontherise.org’s MacMillin and Jacobson proposed a paper titled, “Eyes on the Rise: Informing Citizens About Sea Level Rise in Miami,” while Gutsche and Pinto proposed a paper titled, “Blending Technologies, Classrooms & Communities to Communicate Local Concerns of Sea Level Rise.”

9) The presentation of “Eyes on the Rise, King Tides and Sea Level Rise: A J-School Communicates Sea Level Rise” by Juliet Pinto and Kate MacMillin at the second annual meeting of the Tropical Audubon Society, in Miami, Florida on Oct. 10.

10) Susan Jacobson’s presentation, “It Takes a Village to Build a Sea Level Rise App,” has been accepted for presentation at the annual FIU GIS Day on November 7.

11) A presentation, titled, “It Takes a Village to Build a Sea Level Rise App,” by Susan Jacobson, Jennifer Fu (GIS community partner), Kate MacMillin, Juliet Pinto, Ted Gutsche, and Rebekah Monson (Code for Miami community partner) has been submitted for consideration to the 2015 ICA Mobile Pre-Conference.

12) The team’s presentation of “News, Engagement and South Florida’s Rising Seas” at FIU’s School of Journalism and Mass Communication Scripps Day, October 27.

13) Inclusion of the ONA grant and project in School of Journalism and Mass Communication fundraising and recruitment material in October.

14) A public mention of the project's success at FIU President Mark Rosenberg's Town Hall Meeting in October.

15) Energy and interest surrounding sea level rise and environmental journalism in the School of Journalism and Mass Communication – due in large part to the activities associated with ONA grant – contributed the collaboration of a digital capstone course and a broadcast capstone course in which the students created a 30-minute TV program related to water issues in South Florida. See their work at [eyesontherise.org/h2know](http://eyesontherise.org/h2know)

**Please include any relevant links or stories related to the project.**

Our project has received coverage in at least 37 local and national news stories, including NBC's TODAY, the Washington Post, and the Weather Channel. We also worked with a National Geographic photographer on the Oct. 8 and 9 events, which may culminate in further coverage. See all coverage at [eyesontherise.org/media-coverage](http://eyesontherise.org/media-coverage)

**Please attach a budget report showing the proposed budget and the actual spending in each project category. Explain any significant changes.**

We have made changes to the budget related to the use of technology and public events. We received permission to do so from ONA on Aug. 26 and Sept. 11. [See the copy of the budget we submitted with the report.](#)

