

Focus Group Report

Insights from Tourism, Media, Small Business, Hospitality Industry and Public Information Officer Professionals on Key Elements of Red Tide Messaging and Modes of Communication

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Tourism, Media, Small Business & Hospitality Industry Professionals

Executive summary

The goal of this project is to inform best communication practices to enable the use of science-based information in decision-making during Florida red tide events. Collaboration with stakeholders was an integral component of the project, particularly to better understand the human dimensions influencing decision-making. Conversations during the focus groups provided in-depth understanding of the emotions, values, thoughts and opinions driving personal behaviour.

In this report, we summarize in-depth insight about the key elements of red tide messaging and modes of communication provided by Tourism, Media, Small Business, Hospitality Industry and Public Information Officer professionals during four focus groups. We also identify the red tide-related communication challenges and successes of participants.

The instructive content provided by the focus group participants will help shape the Red Tide Communications Plan for Florida, which aims to align practitioner (i.e., agency) needs with end-user (i.e., resident and visitor) wants. The information will not only help determine preferred red tide content, formats and delivery modes but also inform development of innovative educational approaches and messaging aimed at public health and safety.

Focus group findings fall into five major themes: 1) balancing health and economy, 2) localized, 3), accurate and timely, 4) consumer friendly and 5) unified and personalized. Recommendations under each theme is further described in the final discussion section of this report. Detailed information about each of these is presented in the following sections.

Methods

We conducted four focus groups. Two with tourism, small business and hospitality industry representatives, and two with tourism, the media and public information officers. These professionals communicate about *Karenia brevis* red tide with the public on Florida's southwest, central west and panhandle coasts. These professionals, interface with the local and visiting public regularly and as such are front line communicators of *Karenia brevis* red tide information on Florida's southwest, central west and panhandle coasts. This study collected and analysed their input and insights under the guidance of the following major research questions:

1. What red tide information is most important to communicate to the public?
2. What questions are most frequently asked by the public during red tide events?
3. What red tide communication successes have been made in recent years?
4. What are the major challenges to red tide communication?
5. How does information flow between the scientific community and the public?
6. What opportunities exist for improving red tide communication?

Development of focus group questions and subsequent analysis were conducted in collaboration with a social scientist advisor. Focus group questions were reviewed for appropriateness and accuracy by the project's science and communication advisory committees, piloted, and approved by the University of Florida Institutional Review Board (IRB).

Recruitment

Florida Sea Grant and Florida-based Gulf of Mexico Coastal Ocean Observing System (GCOOS) partners recruited through existing networks. In order to adhere to COVID-19 social distancing guidelines, virtual focus groups were employed. As such, each invited participant was able to select from one of four focus group date/time options.

Focus Group Implementation

Focus groups were conducted in accordance with the University of Florida IRB to protect participant privacy and ensure they were aware of their rights as research participants. Because of the low risk to participants, the focus groups were designated as a study exempt (IRB-20202724) from full review. Nevertheless, it was important for participants to be aware that 1) their participation was voluntary; 2) they could choose to answer questions or not; and 3) they could terminate their participation at any time. We also informed them that we would be recording the focus group discussion for follow-up analysis but that steps would be taken to separate responses from all identifiers such as name and position.

Each of the four focus groups was facilitated by a moderator who asked the questions, probed with follow up questions, and ensured everyone had a chance to speak. A second moderator ensured all components of the questions were addressed by participants before moving to the next question. We began with a brief overview of the project and project team. Participants were asked to keep their video and microphone on to facilitate discussion. Participants then introduced themselves (first name), stated their professional position, and answered an ice breaker question. After everyone had a turn, we began with the focus group questions. Participants were free to speak without raising their hand and asked to keep the conversation verbal rather than writing in chat. In addition to recording the focus groups, project team members listened in the background and took notes to help with transcription.

Data Management and Analysis

At the conclusion of each focus group, the recorded transcriptions, both text and video, were saved. Moderators and project team also debriefed to discuss session content, what was learned, what was surprising, and emotions evoked.

To begin analysis, text transcriptions were compared to what was said on the video and text transcription errors were corrected. Additionally, all participant identifiers, including names and affiliations, were removed from the transcripts to protect participant identities.

Data coding was accomplished in two stages and by two coders, working independently in Microsoft Word® and MaxQDA® (based on methods described by Charmaz, 2006; Krueger, 2000; Ritchie & Spencer, 1994). Initial coding involved the generation of numerous category codes without limiting the number of codes. At this stage, we listed emerging ideas and identified keywords frequently used by respondents as indicators of important themes. The second stage focused coding by eliminating, combining, or subdividing the coding categories identified in the first step. Attention was given to recurring ideas and wider themes connecting the codes.

Sessions and participants

Four focus group sessions with 34 participants total were held (Table 1). Two focus groups occurred on March 16 and two on March 24, 2021.

Table 1: Focus group participants by job sector and jurisdiction

Region	Participants	Tourism	Small Business/Hospitality	Media/PIO
State-wide	3	2	1	3
Southwest	18	6	8	4
Central west	8	5	1	2
Panhandle	4	2	1	1

Focus Group Questions

Below is the bank of questions used during the focus groups (Probes indicated as bullets).

With **Media, PIO, Tourism focus groups** (Probes indicated as bullets):

1. **Icebreaker: What is the outcome you hope for when communicating information about red tide?**
2. **At what point in a red tide do you usually start reporting/communicating information?**
 - How often do you communicate about red tide?

- Do you communicate that a bloom has ended?
 - What audience do you target with your red tide communications?
 - What types of media do you use to communicate about red tide?
 - How important are visuals in your stories?
3. **What are the biggest red tide communication challenges you have?**
 - Do these challenges change throughout a prolonged bloom? If so, how?
 - What aspects of red tide does your audience care about most?
 - What questions are you most frequently asked?
 - Do you feel you understand the causes and implications of a red tide in Florida?
 - What do you think are common misconceptions about red tide?
 4. **Have you had a memorable red tide communication success?**
 5. **What and/or who are your “go-to” sources of red tide information?**
 - How are these sources and the process of accessing them working for you?
 - Is the information easily repackaged for your needs?
 - What information would you like to access that you currently cannot?
 - Do you refer people to your information sources?
 6. **If you were in charge of state-wide red tide communication, what messages would you want to see developed?**
 7. **What improvements to red tide communication would benefit you and the communities you engage?**
 8. **Do you think we need community education on red tide blooms like we have for other natural disasters such as hurricane preparedness? If so, what call to action about red tide might you communicate to your community?**

With **Tourism, Small Business, Hospitality** focus groups (Probes indicated as bullets):

1. **Icebreaker: If you knew the exact date, duration and location a red tide would occur, what would you do?**
2. **What are the biggest red tide communication challenges you have with your customers/audience?**
 - Where/how do you receive trusted information about red tide?
 - How do you utilize red tide information?
 - What aspects of red tide messaging most affect you?
 - Does the way the professional media handles red tide communication affect your work/business? If so, think back to the last bloom you recall and provide an example.
 - Do you have suggestions to work effectively with the media during blooms?

- Does the way government agencies handle red tide communication affect your work/business? If so, please provide an example.
- Do you know/how do you know when bloom conditions are gone?
- 3. **What impacts from red tide are of greatest concern to you/your organization?**
 - How do your business operations change when a red tide event occurs?
 - What do you think are the greatest red tide concerns of your customers?
 - Do red tide misconceptions play into their concerns? Can you share an example?
- 4. **What improvements to red tide communication would benefit you, your business and/or the communities you engage?**
 - Do you feel you understand the causes and implications of red tide in Florida?
 - What information about red tide do you find most confusing to communicate?
 - If you could work with science communicators, what tactics and messages would you want to develop?
 - What is the primary form of communication you have with your audience?
 - What format of information would you find most helpful? [*e.g., canned infographics you could share on your social media sites...*]
 - Do you think we need community education on red tide blooms like we have for other natural disasters such as hurricane preparedness? If so, what call to action about red tide might you communicate to your community?

Participant Responses

In answering the focus group questions, participants provided a wealth of information. This section condenses the overarching themes gathered from the four focus groups.

Key Findings for Major Research Questions

1. What red tide information is most important to communicate to the public?

Participants shared that they have the difficult task of making sense of science-based information, distilling it into lay terms and conveying that to their customers. Unlike state agencies, this group of participants work on very localized scales, 'my beach', 'my section of beach'. To this end, participants frequently noted the need for communicating site-specific conditions. Those in tourism and business sectors are very sensitive about losing visitors and must balance the need for risk messaging with the potential for economic harm due to lost tourism dollars. Many participants noted that red tides are patchy and

conditions change quickly. Although they generally agreed that risk to human health was the most important information to convey to the public, this group generally felt that cell count information was not timely enough to be accurate at local scales, especially considering that the time from sample collection to announced results could be days.

“Although we all certainly recognize, particularly given what happened in 2018, that the situation regarding red tide can vary from mile to mile along the coastline. Which makes it difficult, and so in sharing accurate information, we also need to be mindful at the Chamber to be very supportive of the local economy while sharing information.”

We heard two overarching themes from our focus group participants: 1) Information presented needs to be accurate; and 2) Information needs to be presented in an understandable way in order to give people a sense of security.

“I think it is necessary that we communicate in a more layman's term and not in a scientific way.”

“We communicate things like; what is red tide? what does it mean? where is it? that sort of thing. We will also start making sure that we have experts available to talk to the media as [X] said; to be ready to answer those questions.”

“...my hopes of outcomes in terms of communications would be to present accurate information. Information that gives people a sense of ‘hey I can go to this location to find accurate information, if I want to go out’.”

2. What questions are most frequently asked by the public during red tide events?

Answers largely reflected a basic understanding of current conditions and public health, including respiratory concerns and seafood safety.

“...what that is smell? what is red tide? what's going on?”

“...yeah people planning to come here and they see the news and they want to know if it is safe to come...”

“...I can say, some of them that we'll see on our social channels are: Can I get in the water? Can I eat the oysters, [Have you] got fish all over the sand? Can I walk on the beach? ...”

“The biggest challenge that we face is just those daily questions, the outside dining and am I going to smell it and I am going to see it...”

“I think people are interested in the forecasts; I know a lot of times it can't be known definitively, but people from the business community always seem to want to know how long it may last kinds of detail.”

“I think what they care most about is if they are able to go to the beach and if they are not going to cough. If they can go in the water, and if they bring their dog to the beach, if their dog is going to be safe in the water.”

3. What red tide communication successes have been made in recent years?

Many improvements in communication have occurred since the last significant bloom in 2018. Tourism officials and public information officers (PIO) participate in weekly calls with scientists which in turn allows information to be pushed out to businesses, chambers and the public. One participant mentioned a second meeting that emerged with tourism bureaus across southwest Florida during 2018 to work on unified messaging. The group continues to meet regularly although topics change in the absence of red tide blooms. It was noted these additional meetings provided opportunities to not only get on the same page, but also to learn from and emulate the successes of partners. One such success was the use of beach cams and real-time reports such as standing on the beach with a video camera to counter misinformation.

“One thing that we added to our arsenal because of red tide, was we installed an EarthCam at our beach. Before that we had our public relations manager going out to the beach and taking some real-time video of what the conditions were out there to share on social media. She was being called a liar, people said those are old videos because they looked too nice. We felt this would show the real-time situation. You might not be able to see the water clarity well from the earth camera from that distance, but you can see if there are a lot of people on the beach. You can see if there is a bunch of dead fish or not on the beach. That will be helpful going forward.”

One focus group participant mentioned that they allocated tourism department staff to increase the number of samples collected at their beaches. This provided them with more site-specific information to assist the public with risk decision making. It is more difficult to gauge the success of the media as they have less direct interaction with their audiences after a story is published, but one reporter commented on the successes of off camera experiences with visitors to beaches as opportunities to interact and educate the public.

“But I would say my most positive experiences would be off the camera when I am on the beach with my gear shooting whatever video is that day, and people ask me, ‘what is red tide?’ and I have unlimited time to tell them, this is what it is, this is what happens virtually every year. It is an organism that naturally occurs in the Gulf of Mexico. I can get science-y with it, and not be limited to a minute and a half to explain what red tide is to visitors.”

A PIO in one southwest Florida County noted how consistency in messaging across the local government was achieved. In this case, the communications

department collated information and disseminated via staff meetings and through a standardized template of information on the county website. The website was updated daily. Another PIO from a local government developed a daily email (5 days per week) for media which included information such as *“information about all the various impacts, impacts to tourism, impacts to neighbourhoods along the canals, SBA loans, whatever was topical at that time.”* The success of these emails was inferred from the reduced number of calls and emails from the media requesting such information. Workshops and summits organized by local governments for their respective communities were also seen as successful. One PIO noted these workshops provided opportunities to educate the public and allowed participants, including those from local government, to learn about the latest advances in forecasting tools. *“I think it was really informative, and I think it helped educate our public. Again, it was televised so anybody could watch it and it showed how much that we did learn from the 2018 bloom that we will be able to put to use if and when this occurs again.”* In general, participants felt efforts towards transparency were viewed favourably by the public and helped build trust.

4. What are the major challenges to red tide communication?

Conflicting priorities between the tourism industry and the media present significant challenges to communication. For instance, the chamber, small business and hospitality industry participants often noted how media exaggeration may scare people. They were particularly sensitive to the use of stock photos, which may not be reflective of the current situation, and can create additional harm to tourism related small businesses *“you take a stock photo out of the file and it shows dead fish everywhere, and you say news at 11.”* These focus group participants felt a best practice should be location, date and time stamps for all images used during red tide events. One member of the media in turn expressed *“the tourism industry believes informing the public about risk will do economic harm.”*

All focus group participants generally agreed one of the greatest challenges to red tide communication was social media. Social media was deemed a place where everyone considered themselves an expert and where misinformation often started. As indicated by one participant, the shelf life of stories can be a challenge. Once images or a story is out, it is impossible to reel back in. *“We all saw the social media, our goal at one point was to kind of flood social media with accurate information to try to drown out the months-old photos that just continued to be shared and shared and shared.”* Complicating this, the most vocal on social media are often driven by an agenda, which may or may not be related to red tide, but red tide provides the means to promote the agenda. In terms of misinformation, three additional specific challenges were mentioned 1)

the blame on a single cause, which, if eliminated will solve the problem; 2) the red tide is everywhere; and 3) the perception that the current red tide is the worst bloom ever- which may be related to how long individuals have lived in the area.

Communicating bloom conditions that are patchy and fast changing is another challenge faced by focus group participants. We noted that participants often referred to very localized conditions, such as a particular public beach or the conditions at their business establishment. Because they were focused on such a localized scale, they often expressed frustration that by the time cell counts were released, conditions were no longer relevant. *“One of the things with the daily sampling map is ... you're looking at data from a week ago, ... that may no longer be accurate.”* Participants agreed that the release of cell counts, late on a Friday afternoon, was too late. For the media, it was too late to communicate directly with a scientist and too late to put together a story. For businesses, the release on a Friday impacted their livelihoods, particularly if the status maps were no longer reflective of local conditions. Businesses were also sensitive to media reports that were not timely and resulted in businesses no longer impacted by red tide suffering the blow of perceived impacts that did not exist.

“And most of the time around here when they start reporting about it, it's already over...they're not really reporting on it when it's actually happening, they catch wind of it.”

“So really memorable was, ... [x] standing out at the north end of Anna-Maria island live on Facebook, talking about what the conditions were that day, which were perfectly fine, but if you turned on CNN or Fox news, you would have thought there were 10-foot-deep piles of dead fish on the entire Gulf coast of Florida.”

One small business participant also mentioned that businesses are impacted in two ways. They are impacted by cell counts and they are impacted by dead fish which may float for miles and come onshore where a bloom is not present.

“...another big point, and somebody touched on it briefly earlier in this meeting is a huge difference between dead fish and active red tide. Media completely loses that point. Dead fish can be miles from the nearest active red tide ... They both produce adverse effects but they're very different, and the fact that those are not necessarily related much at all, it's lost in the wash...”

We heard a variety of concerns regarding communication from basic awareness to red tide complexities, and how to communicate the science effectively.

“Oh, it is just they don't know what it is. If you're not from this area or the Gulf coast, I grew up in Indiana. No idea what red tide is, so I think unless you vacation here

and you've experienced it, and then that can create challenges too, because you've got a previous experience or perception of red tide..."

"Another big issue is that it's a complicated issue and you can't really reduce red tide into black and white or yes or no, because it's so many levels and gradations...And those conditions all can change and in real rapid short time periods...so the experience not only depends on the user susceptibility, but the weather conditions and the cell counts, all of which are so incredibly variable that you can't boil it down to a 60 second response to somebody who doesn't really understand what's going [on]."

"...it really does get complicated because there are so many different [challenges], we mentioned red tide but there's that red drift algae and blue green algae and all of that, and on top of that, then, if you add the unfortunate situations that we occasionally have, some high pollutant that might be in the water, ..."

"I think one of the biggest challenges is always communicating complexity in a boiled down way that won't make people glaze over or won't confuse them or lose them."

We also heard from some in the hospitality industry that during red tides, consumers avoid anything fish or seafood related.

"I have heard a lot of people concerned about seafood and whether it's safe to eat, and that can affect a lot of businesses..."

"That was huge for our restaurants and whatnot and so many people would not even attempt to eat anything fish related. ... that was a huge impact for our restaurants. ...a huge economic impact is the image of whether or not it's safe to eat the seafood..."

A clam farmer told us that farmers must continue to tend their crop regardless of red tide or shellfish harvesting status. He was concerned that when the public sees farmers in the water at the aquaculture lease sites, they may perceive that as an indication that shellfish harvesting is allowed. He thought more shellfish specific signage was needed at locations where boaters access the water (marinas, boat rentals, and boat ramps) when harvesting areas are closed.

Participants also felt that agencies needed more consumer-friendly products. They noted that providing accurate data and the public's interpretation of that data are not the same. For instance, participants indicated that the public views red tide conditions based on how it impacts their personal experience (respiratory irritation, dead fish, etc.), but the state reports based on cell counts. As a result, the public struggles to make sense of the environmental data provided in the context of what they need to know to make decisions. Another challenge noted was the level of detail used in explanations. Participants felt scientists often want to provide too much detail to be accurate, but in doing so

lose their audience. Also mentioned was the fact that scientists are not communication experts and as a result, often speak at levels the public does not understand. Participants also struggle with perceived contradictions between scientists. They feel as though they are put in a bad position when they try to point to the science; when to them, it is not being presented as a consistent message. *“...I mean you had different people who seem to have excellent credentials contradicting each other. We were stuck in the middle, because if you provide experts, what I observed was the experts were contradicting each other. They may not have been scientifically contradicting each other, but to the public that seemed like they were contradicting each other.”* Another thought this issue was the result of experts speaking outside their area of expertise. *“We experienced some of that at [X] concerning COVID, particularly at the beginning of the pandemic. You had an epidemiologist [who] might talk about things in one way, and a physician might be talking about it in another way, and that is not interpreted [as consistent] by somebody in the public who's like give me the right information.”*

5. How does information flow between the scientific community and the public?

When red tide is present, many tourism officials and PIOs participate in weekly calls with the scientific community via calls organized by FWC. PIOs share this information via their websites and some, particularly those with in-house laboratories, develop talking points which are shared within the organization. Tourism officials relay information to business and chamber partners through email. During the last significant red tide bloom (in 2018), tourism officials also participated in two other coordination meetings, one which occurred regularly with other tourism officials in southwest Florida to work on messaging and response, and another with the state tourism agency, VisitFlorida (website) that occurred monthly. Tourism and chamber participants display information on their websites and share it through social media. Another important communication tool is real-time video cameras for reporting beach conditions. Tourism and chamber participants generally refer their customers to the Beach Conditions Reporting System as they deem the information the most easily interpreted and beach specific. Chamber participants note that they interact with the public mostly via telephone and in person. As such, they create weekly talking points for front line workers during red tide events. Small ecotour businesses generally receive their information from FWC because it is “less distracting”. These businesses, generally fishing and kayak guides, call clients when blooms are present to discuss risk and options for avoiding red tide areas. Members of the hospitality industry noted that most of their reservations are now made online, so whereas they used to be able to talk to clients to address concerns, now clients just cancel without any interaction. However, once visitors arrive, they may rely on hotel front desk personnel to provide advice about how red tide may

affect their plans. The media obtains their information largely from FWC and often try to follow up with interviews, particularly if conditions have changed between reports.

6. What opportunities exist for improving red tide communication?

Participants generally liked the idea of a public-facing digital platform where everything was in one place, although they could not decide who should host such a site. One focus group discussed the idea of a Deepwater Horizon-like incident command model. They liked having one place to go for the latest information and the many logos to strengthen credibility. Also mentioned was the need for a visual package for partners. Participants felt such a tool would help them flood social media with easily digestible visuals. A visual package should include consistent terminology, accurate information, and consistent visuals. Participants stressed that all stakeholders should seek to be “on the same page” by putting timely and factual information on their websites and social media pages, and for tourism, small businesses and the media to work together. *“...having that one reliable source so we're all sharing the same information saying the same story.”*

Some participants mentioned the need to get in front of the bloom by getting fish out of the water to avoid the negative perceptions that arise when they pile up on the beach. A successful example from Pinellas County was noted.

“There's other places that actually were proactive. And that was the government, they actually worked with our fishermen.... They paid the fishermen to go out and collect fish before it washed up on the beach and that helps, you know, with perception if there's no fish on the beach.”

Also noted was the need for localized information to reduce the loss of visitors. As mentioned before, specific solutions include real-time videos of beach conditions, more site-specific forecasts, better messaging regarding patchy and quickly changing conditions, more timely cell count information, messaging that links cell counts to what may be experienced, and the media working closely with tourism and business partners. In terms of signage, participants thought signage was needed at boat rentals and marinas as these are places where boaters launch and who might harvest shellfish during a red tide.

Another solution mentioned was implementing more community forums where the public could ask questions and receive science-based answers. Participants also suggested packaging red tide information into ‘Science Hour’ programs and other talks during times when red tide is not present. This could also include information on coastal resiliency with action-oriented messaging aimed at reducing nutrient pollution. Participants also thought more positive messaging

should be included in communication strategies such as 1) highlighting science in the field and lab and providing up to date learning; and 2) detailing what is being done to mitigate the effects of red tide such as picking up dead fish, helping with small business loans, etc.

“I think a step that I would add is that we try, we want to communicate what steps the county, the state, and our municipal partners are taking, to mitigate the impacts.”

We asked participants “What call to action would they include in a communication plan” and received the following responses:

“That it's [red tide] fluid, it changes by the hour and just because you see something that says red tides present doesn't mean that it will be present in a few hours, or the next day, so just to keep checking, keep checking the updated information.”

“...my call to action is, we need to every single one of us look at what we are doing. That has anything to do with nutrient loading on inland or marine water.”

“What can I do as a citizen or visitor to diminish the potential for red tide? We had a campaign here called do not feed the beast, where we advise people not to sweep their yard waste and pet waste into the storm drain system, because that goes out into the waterways and contributes to blooms.”

Finally, participants agreed that a communication plan should be a living, dynamic process of being up to date with questions people are asking while keeping consistent about things that are always going to be asked.

“I think that there are materials out there, like cards and things, that give out the basic information about red tide and these different agencies. They do not always get at what the question of the moment might be in a given red tide bloom. I was a little bit more closely involved with social media during the long bloom of 2018 and some questions came up then, that I hadn't seen as much as before. Questions about the relationship between blue-green algae and red tide, if there was any relationship between the two.”

Overarching Themes

Of the nearly seven hours of conversations had in the four focus groups convened, five central themes arose. Table 2 shows the relationship between the central themes and major research questions.

Table 2. Overarching themes across focus groups

Overarching Themes	Aligns with Major Research Question
1) Balancing Health & Economy	1, 4, 5
2) Localized	1, 3, 4, 5
3) Accurate & Timely (Responsive)	1, 3, 4, 5, 6
4) Consumer Friendly	2, 3, 4, 5, 6
5) Unified & Personalized	3, 4, 5, 6

Discussion

The study findings reported here highlight the complex and dynamic challenges associated with communication during red tide events. Five overarching themes summarizing a range of positive and negative communication experiences are discussed. Many communication advances made during the last significant red tide bloom provide opportunities to build on successes. In all four focus groups, respondents offered a range of recommendations that cluster within the five themes.

- 1) Balancing Health & Economy
 - a. Stress the need to communicate and collaborate with partners.
 - b. Highlight the “patchiness” of blooms. Check information sources frequently because beach conditions may change from unfavourable to favourable over the course of the day.
 - c. Ramp up monitoring support at beaches.
 - d. Mitigate economic harm by getting dead fish off beaches and out of water.
- 2) Localized
 - a. Provide real-time videos/images of beach conditions.
 - b. Initiate more site/beach-specific forecasts to avoid losing visitors.
- 3) Accurate & Timely
 - a. Differentiate between bloom count impacts and dead fish impacts.
 - b. Provide timely red tide status reports. Speed up time between sample collection and dissemination, and release reports earlier than Friday at 5pm.
 - c. Ensure that images are location-, date- and time-stamped before disseminating.
- 4) Consumer Friendly

- a. Make it easier for the public to find the information they need (one stop shopping).
 - b. Develop risk messages based on the types of activities people engage in (going outside, going to the beach, fishing, swimming, etc.).
 - c. Develop messaging/talking points that address the uncertainty surrounding long-term exposure effects.
 - d. Develop action-oriented recommendations to increase public health and community resiliency.
 - e. Use consistent terminology.
- 5) Unified and Personalized
- a. Facilitate media and businesses working more closely together.
 - b. Develop visual packages for partners.
 - c. Work to get everyone on the same page to promote consistent, timely, factual information being shared on websites and social media.
 - d. Encourage continuation and expansion of local government-organized summits.
 - e. Highlight and personalize the work of red tide practitioners and county partners- show that actions are being taken.
 - f. Use the Deepwater Horizon Incident Command System approach to provide a one-stop location to access trustworthy red tide communication resources.
 - g. Ensure red tide communication plan elements are part of a dynamic process to keep pace with questions people are asking in the moment while still providing content about questions that are always going to be asked.

References

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