

Estero Bay Aquatic Preserve: Hurricane Irma Crisis Communication and Leadership

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Introduction and Learning Objectives

The following case study will be used in an undergraduate course titled AEC 4035: Communication Practices for Agriculture and Natural Resources at the University of Florida during the Spring 2021 semester. Upon completion of the case study, learners will be able to:

- Define crisis communication
- Describe how hurricanes impact Florida's water ecosystems
- Describe how an organization's structural leadership hierarchy could incorporate key communication roles for responding to crises
- Discuss organizational human resource communication processes and technologies an organization should have in place for internal and external crisis communication
- Identify structural, human resources, and communication barriers and opportunities for effective natural disaster crisis communication
- Create an organizational natural disaster crisis communication plan

The case study instruction will take place online and in-person. Online, learners will engage with content over a two-week period via a narrated module covering background, contextual, and topical content. In the face-to-face classroom, the instructor will reinforce content covered in the module via discussion activities to investigate crisis communication plans, roles, and leadership frames. Ultimately, students will develop 1) their own personal definitions of crisis communication, 2) a conceptual map of roles, responsibilities, resources, and procedures needed for organizational communication before, during, and after a natural disaster, and 3) a crisis communication plan for a natural resources organization.

Contextual Background

The context for the following case study centers on the Florida Department of Environmental Protection, Estero Bay State Park, and Estero Bay Aquatic Preserve located in Lee County in Southwest Florida, and Hurricane Irma's immediate and long-term impacts on the Florida Department of Environmental Protection's (FLDEP) internal crisis communication roles, processes, and technological infrastructure. In order to successfully navigate the case study, learners will need to understand the following contextual background information, as well as organizational structures and relationships:

Florida Department of Environmental Protection (FLDEP)

FLDEP "is the state's lead agency for environmental management and stewardship" of air, water, and land resources. FDEP "oversees 175 state parks and trails and more than 12 million acres of public lands and four million acres of coastal uplands and submerged lands (FLDEP, 2022a)." The state agency also works with communities, other agencies, and local governments for regulating, permitting, and maintaining and preserving natural resource areas such as springs and coastal areas. FLDEP employs several science, regulatory, and legislative officers, park rangers, and communications personnel. Communication is included in their core

values to “operate transparently, sharing information frequently and honestly” with internal and external members, stakeholders, and the public (FLDEP, 2022b).

Estero Bay Preserve State Park

One of the areas the FDEP oversees in Lee County is the Estero Bay Preserve State Park (EBPSP). The park contains 11,381 acres of protected, undeveloped conservation lands that serve as a “buffer to protect the water, inlets and islands along 10 miles of Estero Bay (FLSP, 2022).” The wetlands help filter pollution, improve water quality, and provide habitat for “a wide variety of terrestrial and aquatic plant and animal species including bald eagles, gopher tortoises, fiddler crabs, live oaks, slash pine, and red, white and black mangroves (FLSP, 2022).” The park also offers recreation such as fishing, boating, hiking, biking, and wildlife viewing.

Estero Bay Aquatic Preserve

The Estero Bay Aquatic Preserve (EBAP) began in 1966 as the “state’s first aquatic preserve (FLDEP, 2022c).” Estero Bay is was formed as a result of flooding from the Caloosahatchee River and smaller surrounding rivers and streams. Several small islands border the western edge of the bay, including: Estero Island, Long Key, Lovers Key, Black Island, Big Hickory Island and Little Hickory Island. EBAP provides organizational infrastructure for FDEP and volunteer organizations “help clean up marine debris; monitor seagrasses, wading and diving bird rookeries; and monitor water quality (FLDEP, 2022c).”

Hurricane Irma Impacts

Hurricane Irma made landfall as a Category 3 storm in Lee County in September, 2017 (Mayfield, 2019). According to the *Lee County Hurricane Irma After-Action Report*, Irma destroyed 89 homes and 3 businesses, severely damaged 2,051 additional homes and 38 businesses, and caused minor damage to 1,664 homes and 57 businesses in the county. The county reported successful implementation of evacuation orders, with more than 300,000 people leaving the county and several open and operational shelters for thousands more. It is estimated winds gusted up to 89 miles per hour in Lee County (Cangialosi, et al., 2018), and the county collected nearly 2.7 million cubic yards of debris after the storm (Saunders, 2019).

Hurricanes can impact the short and long-term health of Florida’s coasts and waterways. FLDEP closed 168 state parks after Hurricane Irma, including EBPSP (FLDEP, 2018). There is the possibility high winds and storm surge from hurricanes can cause freshwater inflows from the oceans, which could increase organic matter in rivers and bays. The organic matter could then potentially lead to water quality issues and growth of algal blooms. However, an April 2018 report from the South Florida Water Management District on Hurricane Irma’s ecological effects showed no algal blooms or low oxygen levels were found in the Caloosahatchee River. The FLDEP Division of Water Resource Management (2017) reported critical beach erosion to some of the islands along Estero Bay that negatively impacted wildlife habitat and some recreational areas.

Subject Matter Expert

Justin Lamb is the Environmental Specialist at EBPSP with FLDEP. He specifically oversees the Florida Gulf Coast University (FGCU) interns and volunteers at the Estero preserve. He is an FGCU graduate with a degree in Environmental Studies with a focus on watershed and water quality. Lamb has implemented exotic plant removal measures, as well as oversees prescribed burns to maintain a healthy ecosystem in the preserve. Lamb is a native Floridian and has a passion for natural resources and enjoys fishing, camping, and hunting. Lamb is the subject matter expert (SME) for the case study. He assisted with Hurricane Irma preparations and restoration in the EBPSP. Lamb guided the POLA fellows on a tour of the EBPSP and discussed how the storm impacted the area, his role, and his experiences with crisis communication within his role and the FLDEP structure. His story has informed the development of the case study for examining leadership frames and crisis communication within the natural resources organizational communication context of FLDEP and EBPSP.

Topical Background

Within the FLDEP-EBPSP-Hurricane Irma context, students will learn specific topical information for reaching the case study learning objectives. The specific topics of crisis communication and the structural, human resource, political, and symbolic leadership frames and considerations are woven into the context of the case study.

Crisis Communication

Crisis communication is a sub-discipline positioned within the field of public relations and often includes a focus on how organizations externally communicate before, during, and after a crisis with stakeholders and the public (Coombs, 2007). Crises can be related to public safety, financial, and reputation loss (Coombs, 2007). Organizations are recommended to have crisis communication plans, a designated spokesperson, media training for employees, internal employee notification systems, pre-planned messages and templates for timely response, and to regularly assess and update communication plans (Coombs, 2007). Situated Crisis Communication Theory posits that organizations can fall into victim, accidental, or preventable frames and should choose communication tactics related to each frame for effectively responding to the type of crisis (Coombs, 2007). In the case of FLDEP-EBPSP, the organization and parks could be considered Hurricane Irma victims and should choose a communication message focused on diminishing the severity of the storm and its impacts, as well as rebuilding (Coombs, 2007).

While much of the emphasis of crisis communication is focused on communicating with external stakeholders and the public, some researchers stress the importance of also carefully considering crisis communication roles and procedures with internal stakeholders, specifically employees (Frandsen & Johansen, 2011). Internal crisis communication is key for ensuring employees have frequent and updated information about the organization and its reaction to and handling of the crisis, as well as information to be shared with external audiences.

Employees' stakes in the organization could impact their perceptions and experiences, in turn ultimately impacting how they communicate with others about the organization and its crisis management. It is imperative organizations communicate a sense of certainty and security to employees. Therefore, clear and transparent communication internally and externally are key during a crisis, and it is ideal for organizations to have a crisis communication plan that addresses all stakeholders.

Leadership Frames and Considerations

Structural

The structural leadership frame emphasizes components of an organization. Through the structural frame, organizations are most effective when there are shared visions, missions, and clear roles, responsibilities, and chains of command for reaching goals (Bolman & Deal, 1991). In the FLDEP-EBPSP case, the FLDEP has an organizational leadership structure that includes park employees such as Lamb reporting to an Assistant Deputy Secretary, who reports to the Deputy Secretary of Land and Recreation, who then reports to the Chief of Staff. The Communications Director has a lateral line to the Assistant Deputy Secretary of Land and Recreation and a direct report to the Chief of Staff. The organizational structure plays a major role in crisis communication procedures and response and appeared to impact Lamb's experiences before, during, and after Hurricane Irma.

Human Resources

The human resources frame places the organizational focus on interpersonal relationships and empowerment, and posits that organizations will work better if they are responsive to employee needs and relationships (Bolman & Deal, 1991). In the FLDEP-EBPSP case, the human resources frame directly impacted Lamb's Hurricane Irma experience. FLDEP has a responsibility to support its employees during a storm, as well as request employees to provide support to prepare, protect, and recover state parks such as EBPSP through the course of a hurricane. Building internal employee relationships and trust before, during, and after a crisis are imperative for the survival of the organization and its resources. Additionally, internal clear and transparent lines of communication are crucial for fostering a culture of caring and support in times of crisis.

Political

The political frame examines the impacts of political leaders and advocates on an organization (Bolman & Deal, 1991). Since the FLDEP is a state-run organization, politics closely impact its budget, resources, and employees. The EBAP is an important advocacy arm of the EBPSP that can also assist in requesting funds, influencing policy, and rallying the community for supporting the protection and clean-up of the bay, as well as monitoring of the bay's water quality and health. Lamb's story does not directly have a political bent to it. However, the FLDEP and EBAP can be influenced by politics, and it is imperative that crisis communication

addresses external stakeholders such as politicians and community members who can advocate for the EBSP to maintain an ideal budget, employees, and advocacy groups for support of the water ecosystem.

Symbolic

The symbolic frame emphasizes the mission and values of an organization to create a shared culture. The symbolic frame creates unity and vision for an organization. FLDEP has outlined a mission, vision, and core values that highlight the expected norms, attitudes, and behaviors for the organization's members and overall culture. Lamb's story indicates the communication core value of FLDEP came in to play before, during, and after Hurricane Irma. Administrators aimed to communicate transparently with employees, employees with one another, and employees with park visitors.

The Case – Learner Perspective

The FLDEP has hired you as an external crisis communication consultant. Your job is to investigate how the organization handled its communication response to Hurricane Irma in 2017. You can review news media websites, videos, news releases, FLDEP reports, and other sources you find relevant to find information about how the organization responded to Hurricane Irma. Include – what went well, what did not go well, and recommendations for future crisis communication improvement.

Crisis Communication Background

How do you define Crisis Communication? Develop your own personal definition for crisis communication. What is the role of a communications specialist before, during, and after a natural disaster/crisis? What steps should a crisis communication plan include? Compare your thoughts to Coombs (2007) crisis communication plan recommendations.

Leadership Frames Background

When it comes to effectively developing, implementing, and assessing an effective crisis communication plan for natural disaster preparedness and recovery, various leadership structures, roles, and responsibilities should be considered. As a crisis communication consultant, you must understand different leadership frames that impact and guide an organization.

Organizational Background

To get started, you need to do some background work. Research and identify:

- FLDEP organizational mission, vision, and organizational structure
- FLDEP communications roles and responsibilities
- EBSP location, acreage, and uses

- EBAP mission and role
- Take a look at this YouTube video: <https://youtu.be/OPgzYsvgQdk>

Hurricane Irma Background

In 2017, Hurricane Irma hit the EBPSP. Park employees prepared their personal homes and the park for the storm, as well as cleaned up their homes and the park after the storm. Learn more about:

- Hurricane Irma's impacts on Florida's southwest coast
- How hurricanes can impact water quality
- FLDEP-EBPSP Environmental Specialists Justin Lamb's Hurricane Irma experience
- ABC network's Good Morning America coverage: <https://youtu.be/qzGZewdEAH4>
- Storm surge explainer: <https://youtu.be/2QMbnipfnU>

Justin's Story

Environmental Specialist Justin Lamb works for the EBPSP, which organizationally reports to FLDEP. In the days before Hurricane Irma made landfall over Estero Bay, Lamb worked with fellow park staff to prepare the grounds of the preserve and nearby Koreshan State Park for the high winds and rain from the hurricane. They removed and secured garbage, garbage cans, picnic tables, prepared historic buildings and other facilities, as well as checked on and stocked supplies such as chainsaws and gasoline for debris removal after the storm. Lamb explained that they had to close the parks, cancel reservations, and turn the public away before Hurricane Irma hit. At the same time, the park staff had to prepare their personal homes for the storm. Lamb said during and after Irma, their cell phone service was spotty and even went out in some places and their park walkie talkies became more reliable for internal immediate communication. Here is a quote from Justin:

Of course this day and age cell phones are what everybody uses. So, you know, have your cell phone charged, have a backup charger, you know, what are you going to do in the power's out? How are you going to charge cell phone cell phone cell phone? So we had that that was happening and but what do you do when that dies Now many of us live close enough to the park that our park radios reach. So we had some communication just with our park radios couple miles here a couple miles there. This park specifically is Close enough to some type of stronger grid we'd only lost power here for for one day. Maybe due to the fire station being here, maybe just luck. But kind of being a central hub in the county for other parks even with equipment and stuff. We needed to be functional here. So cell phones were the first line app it took a few days but we did get our landline up and running. Once that happened, our management was able to communicate with our district office, who was then able to communicate with Tallahassee and in the hierarchy work that way. As far as our staff in house, once we got here, it was all our radios and we do practice proper radio etiquette. So even though times of high stress tension are practice with the radios really helped here.

At the higher organizational level, Lamb says the FLDEP used a large-scale automated messaging system to communicate with employees. Lamb's immediate supervisor also called each individual employee in his group to check on them. According to Justin:

The DEP just released a emergency contact system where there's automated text messaging and email that, that go to employees and then we then respond and that goes back back into the system. In addition to that, management does reach out. before the storm, it would be, hey, I want to know after the I passes, as soon as you're on your feet, I want to know that you're okay. As far as back to work expectations, there was like a two day closure. So if you couldn't make it back, that's fine. And then there's there's even additional time that people couldn't make it. But we did have some of that out ahead of time. And then what was key was the emergency response system that the EP came out with.

After the storm, several of the state parks were out of power and closed for at least two days. Lamb describes that part of park staff members' jobs duties encompassed communicating to the public about the status of the park conditions and clean up procedures, as well as coordinating community volunteers to assist with removing debris and repairing any damages. Justin went on to say:

Afterwards that the issue wasn't local folks trying to come back in it was refugees from other parks and other areas that were actually hit harder than they were here. And a lot of volunteers that know the Park Service understand that there's a place to stay if they help out with work, so it was tough to turn folks around. We weren't safe here to operate. So we we did have some issues with with turning away some of the public immediately it was volunteers that wanted to come help that we had to turn away so that was tough. For the most part, they were understanding as far as the public wanting to come see the park, it was, you know, are the historic buildings still okay, we want they wanted to see destruction. And to let them know that there really wasn't as much as they thought it was just hard to kind of present that image through words, even though they wanted to come in and see we just We had the gates closed and they actually couldn't get in. So we did give them a timeframe to come back if they wanted to help with some cleanup once we got to that point by that most people have dispersed and then moved on.

Once the hurricane passed and FLDEP and park staff assessed damages and repair needs, the organization could have applied for federal assistance from the Federal Emergency Management Association (FEMA), similar to how homeowners can apply for assistance funding. No FEMA Hurricane Irma requests were found for EBSP in an online search. However, the nearby Koreshan State Park requested funds for roof, boat landing, dock repairs, and mold removal.

Questions

Content

- Reflect on the FLDEP crisis communication case and Justin's story. Describe what went well with the crisis communication strategy/practices in the case, did not go well, what practices should continue, and what should be improved.

Structural Frame

- What is Lamb's role and responsibilities in FLDEP?
- What is his role and responsibilities when it comes to crisis communication in the organization?
- Who does he report to? And how does communication reach him?

Human Resources Frame

- How does FLDEP support Lamb's position before/during/after a hurricane?
- What additional resources might Lamb need before/during/after a hurricane in his role?

Political Frame

- How might FLDEP work with the government / political leaders to ensure they have adequate funding for hurricane recovery?

Symbolic Frame

- FLDEP stresses transparent communication in its shared values. How can the organization maintain this transparency with employees before/during/after a hurricane?

Integrated

- How does FLDEP communicate with the public before/during/after a hurricane?
- What are some ways FLDEP could support Lamb in communicating with the public before/during/after a hurricane about park impacts, closures, and recovery steps?

Summative Assessment

Submit a natural disaster crisis communication plan for the FLDEP-EBPSP based on recommendations from Coombs. Additionally, use an assignment handout that includes a table with one column containing the structural, human resources, political, and symbolic leadership frames and a second column for students to a) define each frame, b) provide evidence from online searches and the case itself for each leadership frame and where they found it within the case, and c) provide a brief reflection on how crisis communication is connected to each of the frames.

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