

Teaching Note: Santa Clara Pueblo Recovery

Introduction

This teaching note is intended to help instructors use this case study in a classroom setting. The teaching note expands on the lessons learned in this case study, which is intended to help emergency management students or professionals learn from a real-world disaster experience. Selection of learning objectives, discussion questions, and activities can be customized based on audience and time allowance. It is suggested that students read the Background and Challenges sections (Part One) and pause to discuss the situation before moving on to read the Actions, Results, and Lessons Learned sections (Part Two).

This case study highlights the pioneering recovery efforts of the Santa Clara Pueblo. In 2011, the Santa Clara Pueblo was severely impacted by the Las Conchas Fire. The wildfire burned approximately 80% of the forest within the Santa Clara Pueblo boundary, much of which was located within the 32,000-acre Santa Clara Creek watershed. The loose soil in the canyon and lack of stabilizing vegetation following the fire led to dangerous erosion and flooding during the 2012, 2013, and 2014 monsoon seasons. Roads, water control structures, wildlife habitat, and tourism infrastructure were all destroyed by the floodwaters. This devastated the tribe's traditional way of life. The tribe utilized a collaborative teams approach to recover, prioritizing preparation, mitigation, and long-term resilience.

To become more familiar with relevant concepts before teaching the case, please review the following:

- [After Fire and Floods, Restoring a Sacred New Mexico Canyon and a Way of Life](#) (PBS News Hour)
- [A Tribe's Collaborative Journey to Develop Forest Resiliency: A Story Map by Santa Clara Pueblo Forestry](#)
- [Santa Clara Pueblo and the Corps of Engineers: A Working Partnership Between Two Nations](#)
- [Santa Clara Creek: Headwaters Restoration](#)
- [FEMA.gov: Santa Clara Pueblo](#)
- [FEMA IRC Case Study – Santa Clara Pueblo: A Tribe's Journey to Prepare, Mitigate, and Recover](#)
- [FEMA IRC Case Study – Santa Clara Pueblo: Restoring Native Ecosystems to Build Resilience](#)
- [Building Community Resilience with Nature-Based Solutions: A Guide for Local Communities. FEMA.](#)

Student Learning Outcomes

- Discuss the importance of cultural considerations and their impact on recovery planning and project implementation.
- Analyze the challenges and opportunities presented by a disaster that involves multiple governmental and tribal entities.
- Consider how preparedness activities can be integrated throughout the recovery process to improve mitigation and resiliency.



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Key Takeaways

- A strong network of interagency and intergovernmental partnerships can allow for greater participation in the recovery process, a comprehensive understanding of recovery needs, and open doors for programs, grants, and other technical support for recovery projects.
- Integrating cultural considerations throughout the recovery planning process is key to designing sustainable, successful recovery projects.
- Prioritizing mitigation and preparedness during the recovery process can help increase resiliency ahead of future disasters.

Discussion Activities

Discussion Questions

1. The Santa Clara Creek and Canyon have traditionally served as a place of connection and reflection for the Santa Clara Pueblo. Because of the severe damages from this disaster, younger generations lack access to these spaces. Older tribal members were concerned a long-term cultural loss could result from this lack of connection. Why is it important to include this cultural perspective in recovery planning? If you were leading this disaster recovery effort, how would you ensure that these priorities were integrated among your staff and partners throughout the planning process?
2. The Santa Clara Pueblo established Memorandums of Understanding (MOUs) with the National Park Service and the U.S. Forest Service for co-management of forested lands within and adjacent to the reservation, in an effort to strengthen the canyon's natural buffer against future disasters. What are the benefits and challenges of a co-management approach like this one? Do you have any experience establishing MOUs following a disaster? What did you learn from those experiences?
3. The stream restoration projects and top-down restoration approach faced many challenges, including issues related to costs/funding. However, restoring the creek and canyon was a top priority for local residents. How do you balance these competing considerations – local priorities vs. cost-benefit/feasibility? What tactics, resources, or partners can you rely on to help address these challenges? Do you have previous experience in a similar situation, and if so, what actions were taken?

Group Activity 1: Designing an Organizational Structure

Duration: 45 minutes

Setup: Split participants into small groups of 2-3 individuals. Provide scrap paper for brainstorming if needed.

Instructions: The Santa Clara Pueblo are currently operating under five separate disaster declarations: two in which they are the direct grantee and another three in which they are a sub-grantee to the state of New Mexico. The complicated relationships among the tribe, state, and federal government partners have created confusion and stalled progress on recovery initiatives. Federal staff have arrived to embed with local leadership and provide technical assistance. Your task is to design an organizational structure for the federal support in the field.

Debrief Discussion:

- How would you determine which staff roles and subject matter experts you need in the field? How would you determine the size/scale of your operation?
- What role do the tribal government's capacity challenges or needs play in designing your organizational structure? What challenges do you anticipate when it comes to staffing the disaster – both in terms of numbers and expertise?
- What strategies would you employ to effectively work with the multiple governments and partners involved in this disaster? What challenges do you anticipate, and how would you mitigate those challenges?

Group Activity 2: Mitigation and Preparedness Recommendations

Duration: 30 minutes

Setup: Split participants into small groups of 3-4 people each. Provide poster paper and markers for participants to capture their recommendations. Let groups brainstorm for 15 minutes, then spend 15 minutes reporting out on recommendations.

Instructions: Prior to the disaster, the Santa Clara Pueblo did not have a designated emergency management department or emergency warning system. Following this disaster, they shifted to a preparedness approach, working to treat fire risk before it occurs through mechanical thinning and prescribed burns. They installed an early warning system based on rain gauges placed in the watershed, and completed an Incident Action Plan.

In your groups, brainstorm other potential mitigation and preparedness activities the Santa Clara Pueblo could adopt to increase their resiliency and readiness for the next disaster.

Discussion:

- Describe your thought process when brainstorming these recommendations. How did you decide which preparedness activities to focus on?
- What are some potential challenges with implementing these preparedness recommendations? Assume funding is available. How would you mitigate these challenges to ensure successful preparedness efforts? Are there partners or resources you have worked with previously that could provide support?
- How would you communicate the importance of these preparedness steps to local leadership and the wider community? What steps would you take to ensure the whole community is aware of these actions, and understands the importance of preparing for the next major disaster?