

1. Jenny, thank you so much. I am so grateful that you are willing to share about this difficult experience - it is important that we discuss disasters so that we can learn from them, but they remain difficult topics. As Robin mentioned, I'm Kathleen Aston and I'm the Collections Manager at the Santa Cruz Museum of Natural History. We're neighbors of the Santa Cruz district of State Parks, with whom we frequently collaborate on a variety of projects. While we did not suffer collections losses like Big Basin, we were impacted by the extreme weather events that culminated in the CZU lightning complex fires. For my portion of this presentation I'm going to talk about those impacts, with a focus on how the fires impacted our collection development practices.
2. But before I talk about collections development, I want to touch on some of the more immediate lessons that we, as a small regional natural history museum, learned during our experiences of CZU. The first thing I want to emphasize, echoing Jenny's points, is staff safety. When assessing what staff members are available to respond in an emergency, you need to assume that some folks will be unable to participate due to personal reasons - for example, if they have been injured, evacuated, or are caring for loved ones. In the case of the extreme weather of lightning storms and fires, many in the Santa Cruz area had to leave not for these reasons, but simply in order to be able to breathe. I was fortunate in that I was not impacted in my physical health and housing, but I was impacted emotionally. You can see in this photo the picture from my front yard. Ironically, one of my tasks that month was to add the first iteration of collections focused content to be included in our institutional emergency plan. I was actually writing that content while the sky turned orange and ash began to fall outside my window. I was thinking at the time about a lot of resources, like the emergency management cycle and the disaster response wheel, and I will never quite forget the experience of setting aside my computer to start gathering my significant documents and making sure I had gas in my car.

So I was thinking a lot about the emergency management phases - pictured on this slide, these as many of you know are mitigation (doing what you can ahead of time to minimize the impact of disasters), preparedness (the immediate actions you take to get ready for an impending disaster), response (the first 72 hours of reacting to a disaster), and recovery (the months years and decades of processing the disasters impact).

3. I had been focusing on making sure our plan had good "response" type content - particularly making sure we had guidance on collections salvage. Because our collections were not directly impacted by the fires, we did not have to take advantage of this content. We did, however, realize the importance of some other components through our experience with evacuation. It seemed unreal that the fires would be able to get to us, in the heart of the historic and relatively central Seabright neighborhood, but it was an unreal moment to be living out. We did not want to wait until the fires got close, but we realized we did not have a metric for when to move things - and this was something I hadn't seen a lot in the literature I was looking at - what it really means to identify the disasters that might impact your community and when exactly, short of the flames at your doors, it's time to go. On top of all that, who it is that makes that call? Is it the senior collections or operations staff or the director? We ended up determining that once any collections holding area was immediately adjacent to an evacuation zone, the executive director would inform collections staff that it was time to we would relocate materials. This did happen with items at our offsite storage location at a public storage unit, and we did relocate them to a storage unit location further down the coast. Our priority items list, a snippet of which you can see on the screen, was invaluable in this process - the importance of designating priority items is definitely something in the

literature, and something that fully matched our experience. Most of our priority items are in our main collections space onsite, but having written that listed forced me to articulate the priority levels of items that have been historically held at our offsite storage unit, and that I have not yet had much of a chance to work with. While ultimately the fires did not impact that unit, they could have. In thinking through evacuation, we also had to brainstorm where to put things - it's important to consider in your planning that most semi public or public spaces that might be used for collections relocation will likely be taken up by people and emergency supplies. We are a very small institution that relies in part on public storage units, and ultimately went with temporarily relocating items from our collections storage unit to an event and education supplies unit that was further from the evacuation zones. We articulated but did not have to use our next possible location - the executive directors home even further out of harm's way.

4. It was critical that our executive director Felicia Van Stolk, who had plenty to do, including support several staff who had to be evacuated, be involved in this process so that we had buy in and support. Throughout this experience, from working on our emergency plan to responding to an emergency to reviewing our responses, our Board Collections Committee provided invaluable support and insight. This is a photo of our larger board, but I work closely with a subset of these wonderful folks on our board collections committee. Collections are fun, so they're all quite enthusiastic, but I am very grateful that several of them have become very invested in emergency planning. Especially for smaller institutions who often have to call upon board members and volunteers for support, cultivating an involved collections committee is an essential tool for responding to challenges at the emergency scale. I can't endorse that process enough. It was via our collections committee meeting discussion following the CZU fires that we not only solidified staff understandings of our emergency preparedness experiences, but also generated institutional understanding, and consequently, support of the efforts to make improvements to our practices.
5. But we didn't think about this experience exclusively in the context of collections evacuation and salvage. We also thought about collection development or acquisitions. For the remainder of my presentation I'm going to talk about the efforts we made to responsibly and ethically collect items related to the CZU lightning fires, and the ways that our programming and partnerships positively impacted these goals. Part of preparing for extreme weather and disasters means engaging your community over these issues, especially in light of increasing climate instability, and I consider these issues to be within the "response" section of the emergency management cycle, which can easily feed into the other components.

By the time our skies darkened from smoke in August 2020, we had already experienced an unprecedented disaster - covid. And we had already decided it was important to collect items that would help tell that story, even if they weren't traditional natural history specimens. Collecting in response to the fires was a similarly complicated prospect - with related challenges of deciding how to acquire objects with sensitivity, and to make sure they made sense for our collections. Ultimately, we were inspired to this decision by a staff member who was evacuated during the fires - our wonderful Visitor Engagement Manager Liz Broughton - who reached out even while evacuated to a hotel outside the area to press the issue of how we were going to collect CZU.

6. We made sure to do our research and look around at how other institutions responded to disasters from a collecting perspective. As an example, on the national level, we had the materials in the Smithsonian Katrina Collections, whose curators wrote papers on how

they went about developing a collection that captured such cataclysmic, painful, and complicated events. Description of items - portraits of damaged homes, basket for rescuing survivors via helicopter, and memorial button)

7. In our local community, we had institutions like the SLV Museum, who were still providing ways to engage folks in their local history even while they themselves were dealing with evacuations, or the Museum of Art and History, who conducted interviews to give people a chance to share very personal stories of loss. And of course, these are just two examples among many responses by cultural institutions, community groups, and individuals, many of whom were focused in those early days on getting folks the food, shelter, and information they needed as they dealt with the evacuation from and destruction of their homes.
8. We especially wanted to think about what it made sense for us to collect as a Natural History Museum - and this is something we found inspiration for in our own collections. We have a selection of items in our collection based on the locally devastating 1989 Loma Prieta earthquake. Items in this collection range from commemorative bricks given to volunteers, to bumper stickers celebrating survival, to a rock that illustrates evidence of fault movement. These items, some of which are not traditional natural history specimens, have helped us connect with our community countless times, from lectures on local natural disasters to our 2019 Loma Prieta commemorative exhibit, Sense of Scale
9. Synthesizing all this research, experience, and conversations with colleagues personally affected by the fires, as well as considering our storage space constraints and our commitment to natural history related items. we developed a priorities document to guide our collection efforts
10. We used this as a tool to communicate our project, not only through traditional outreach channels like social media but also through personal networks. We hope that these articulations demonstrated the thoughtfulness we want to bring to this collection and all its complexities
11. Responses were not overwhelming, but it did work - we acquired a variety of natural materials directly affected by the fires, including leaves, cones and ash.
12. Taking a further cue from our Loma Prieta collections, we also purchased some small items for the collection - this included memorabilia whose creators were donating proceeds to local relief orgs, such as this sticker by local artist Clara Spars. Proceeds from this sticker were committed to the support the locally Indigenous led Amah Mutsun Cultural Burns Program and help the Amah Mutsun Land Trust recover losses from the CZU Lightning Complex fires." Knowing that community networks are such a critical component of disaster recovery, we wanted to capture the incredible outpouring of community support.
13. I'm also proud to say that our organization did more than just purchase stickers - our executive director supported staff members to volunteer up to a certain number of hours at community emergency response efforts on work time - including sorting and distributing supplies at the a city run warehouse facility, or taking calls at the Cal-Fire information center.
14. Unexpectedly, this engagement also led to growth in our CZU fire collection - like the gifting of CalFire operations map charting the fire's development. I think this is an important example of the way that engaging with your community in times of crisis is always beneficial in more ways than one, especially when you want to enhance collections that speak to your community need. This is also a good example of the importance of collaboration across departments - we deliberately communicated with staff about our interest in collecting CZU related objects, and had some extensive talks about being sensitive to difficulties of these types of asks, and it was in fact a non

collections staff member volunteering with CalFire who took advantage of this opportunity to acquire several maps.

I hope for some of you this unexpected collections success story, as well as the others I'm about to share, provide you with concrete examples that you can use when advocating for community engagement and interdepartmental collaboration opportunities.

15. Another great example of collections growth outside our deliberate CZU campaign was our community photography exhibit 2020 Vision, in which community members were asked to submit photographs of their 2020 experience for inclusion in a hybrid digital and virtual exhibit.
16. Many of these images focused on aspects of the fire, such as the orange lighthouse afternoon on the first slide, the deep orange sky in the afternoon of the Santa Cruz town clock here, or the image of Santa Cruz cypress cones opening in response to fire conditions. These images, while not explicitly part of our CZU collection, continue to be useful points of illustration for the significance of the fires and our ongoing response to them.
17. Speaking of ongoing response - I will briefly say that we did anticipate some ways that our non collections initiatives and programs were going to expand collections - we just didn't initially focus on traditional notions of collections. We have an ongoing CZU Lightning complex community science project that empowers community scientists to collect biodiversity data from areas impacted by the fires.
18. This project, which utilizes the community science platform iNaturalist (observations shown above), is a joint project with UCSC's Kenneth Norris Center for Natural History and the California Native Plant Society. It builds out a collection, so to speak, of data on the iNaturalist that is accessible to all, from scientists to members of the public.
19. Happily, these partnerships also fed back into our interest in collecting specimens related to the CZU fire, as it cultivated our relationship with CNPS staff who were able to collect for us partially opened cones from the burn zone. These help us demonstrate a unique fire ecology adaptation where the cones of some conifers open in response to fire conditions.
20. Closely tied to our ongoing community science project was our CZU and You program series the year after the fire - a program series designed to promote an ongoing understanding of the fires, their effects, and what that means for people on the central coast.
21. This program series was put together by our incredible public programs Manager Marisa Gomez, who you can see in this screenshot of our CZU and You event that focused on community collections response to fires - it was through this program that I really first collaborated with Jenny and heard her experiences with the fires. Now we're in a community collections group. Not only was this an excellent program that received a lot of positive feedback - it was an important opportunity to strengthen ties across local collections staff.
22. Which, in turn, also supported our collections - Jenny's experience talking about the impact of CZU at Big Basin included a discussion of burned taxidermy armatures from the former museum site. As the result of our productive partnership, Jenny not only became aware of our collecting interests but also felt comfortable sharing these specimens with us - specimens that not only help us tell the story of CZU, but also fo the history of science and taxidermy in the monterey bay region. We are grateful for all the partners and community members who have donated items to our CZU fires collection, and we will continue to look for opportunities to connect our community with the collections that better reflect them through this participation.

