



City of Palo Alto
Utilities Advisory Commission Staff Report

(ID # 11074)

Report Type:

Meeting Date: 3/5/2020

Summary Title: Resilience Workshops Follow Up

Title: Discussion of Resilience Workshops: Follow Up and Next Steps

From: City Manager

Lead Department: Utilities

Recommendation

Staff is providing a briefing on the second Utilities Resilience Workshop from November 2019, and is seeking feedback from the Utilities Advisory Commission (UAC) on the framework, priorities, and next steps described in this report. No recommendation to Council is required at this time.

Executive Summary

The purpose of this report is to summarize key findings from the November 13, 2019 workshop, present the draft resilience vision and goals for the Utilities Department for the UAC's review and feedback, and discuss next steps.

Generally, the initial resilience framework captured the community's priorities and goals as represented at the workshops, although there was some refinement, and clarification of terms. Staff's lists of projects were also recognized as important for meeting the goals. The following types of projects emerged as the highest priorities from participants:

- Projects that address the high probability / high consequence events such as earthquakes, regional wildfires, and sea level rise.
- Health and safety projects.
- Review zoning and codes for support of goals and priorities.
- Mobile power solutions for use in emergencies.
- Provide emergency locations with solar power generation back up and storage.
- Reconsider how projects are organized/ planned/ prioritized.

Background

The UAC hosted the second community resilience workshop on November 13, 2019 with the objective to review and refine the Utility Resilience Framework that was developed during the first resilience workshop in 2018 ([August 2018 Workshop Agenda](#) and [Summary](#)). The Framework helps to prioritize future projects and efforts to improve community resilience

related to the City of Palo Alto Utilities Department. Approximately 40 community members, city staff, and Commissioners attended the meeting.

At the conclusion of the official UAC meeting on November 13, Staff started the Resilience Workshop #2. The meeting started with introductions and moved into the objectives of the meetings, and a summary of Workshop #1 Resilience Framework ([Attachment A](#)), common themes, vision, and goals, and a discussion of risk assessment.

The meeting continued with presentations on the Resilience Framework and the Utility projects that would help to address those goals. Small group discussions were used to prioritize and consider the Utilities projects per each goal. Attendees were given comment cards as well as a link to an online survey to collect feedback.

Mindy Craig, BluePoint Planning (consultant), facilitated and graphically recorded the meeting. The workshop was video recorded by the City of Palo Alto.

Discussion

After presenting the draft resilience vision and goals, participants asked a few questions and made comments:

- The proposed vision states: Support Palo Alto Community Resilience by advancing the Utility to become a “Smart” Utility, able to assist the City prepare, respond, support, and rebound from manmade and natural disasters. What does it mean to be “smart”?
 - Opposite of dumb, 21st century vs. 20th century
 - Smart grid: Identifying outages, smart meter
 - Advanced
- The Goal 1 identification of Community Hubs is recognized as important but we also need to help individuals who require at home help (e.g., the elderly, those with oxygen needs)
- Consider if Schools and Community Facilities are “critical” facilities
- Cell Towers need to be operational
- Training/education is important., e.g. how to power your home from electric vehicles
- In a major disaster how fast can we assess buildings and get people back in?
- Solar panels and storage in homes will make them more resilient.

The following comments were made regarding the proposed framework:

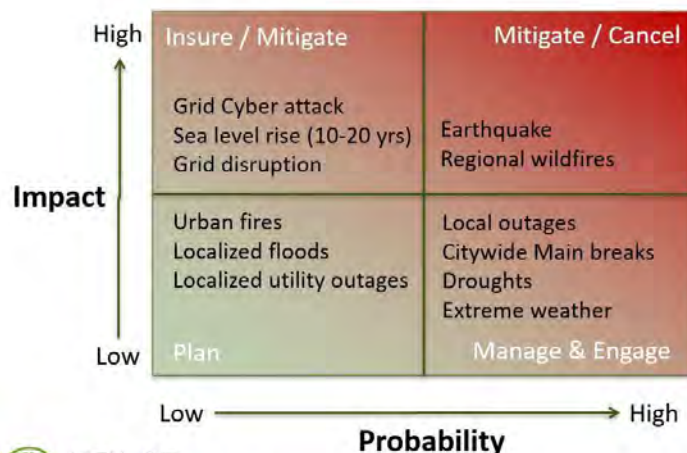
- Define SMART to include “no tech” solutions
- Prioritize function
- More robust Commercial/Industrial load curtailment
- Identification of public gathering places
- Education to PV owners to safely isolate their systems
- Coordination of City Utilities/Emergency planning with local companies
- Cell tower outage plan
- Identify critical businesses and have a plan/agreement with them for supplies

As part of the presentation a risk assessment chart was discussed with high/low probability and high/low impact with different issues.

Attachments have been linked within the report as well as below in an effort to reduce waste.

- [Attachment A](#) - Amended Framework
- [Attachment B](#) - Goals and Projects List
- [Attachment C](#) - Workshop Wall Graphics and Flip Charts
- [Attachment D](#) - Comment Cards From Workshop 2

The Risk Assessment: Impact and Probability



After comments on the risk assessment, the presentation continued with prevention, recovery, and survivability strategies. Below is a summary of the comments on the Risk Assessment:

- Sea Level Rise should be a high probability!
- The chart is not inclusive of all issues
- Urban fires are more like earthquakes
- PSPS (Public safety power shutdown)
 - Where does that fit in? high probability, high impact?
 - Not as big an issue within Palo Alto

After the presentation that involved a review of the Resilience Framework, Goals 1-3, the attendees broke into small groups (approx. 8-10 people per group) and discussed priorities of projects per goal. Each group had a table facilitator, a list of programs to prioritize per goal ([Attachment B, Goals and Project List](#)). The small groups reported back to the large group their top priorities and comments. The group notes and the facilitator's wallgraphic notes are captured in [Attachment C](#).

Goal 1: Stay in Place

- Communications
- Wildfire management
- Portable toilets
- Mobile services
- Incentivize electrification
 - Be careful not to have alternative resilience (gas) and GHG
 - How do you manage in an outage?
- Have a better system for renewable power use
- SMART inverters
 - Code enforcement training
- Microgrids at community facilities – link to cell tower connections
 - Sustainability
 - Grid independences what does that look like?
- Safe and affordable water and pump resources
 - Quality of water
- Rebates for solar and storage
- Low tech communications and solutions
 - Communicate in advance what to do
 - Sirens/ loud speakers
 - Radio

Goal 2: Prioritize Critical Facilities

- Water tanks and well water withstanding earthquakes
- Larger electric storage
- Second transmission line (second connection location)
- How does natural gas fit?
- “Roofster”(individual) vs. community scale PV/ storage

Goal 3: Enhance Utilities Resilience

- DERS
- Communication
- Transportation – coordination
- Schools
- Training!
- Integration and coordination with cities

Potential Prioritization Criteria

- High probability / high impact
- Community resilience
- Utility resilience and City sustainability to be linked
- More holistic approaches:

- How does utility infrastructure interface with community?
- Work with community, resident, hospitals
- Not just a utility plan

Other projects to be considered:

- Investigate vulnerabilities
- Landscape maintenance
- Use of electric vehicles as storage
- Top qualified professionals
- Broad “scope” to include gas/water/wastewater. Not just electric. Interdependencies
- Codes/incentives to encourage solar installation and operation off the grid during power outages

Comment cards were distributed and collected at the end of the workshop ([Attachment D](#)).

Timeline, Resource Impact, Policy Implications

From the final framework, staff will propose new projects and priorities in future CIP plans. Already in progress are wildfire mitigation measures, smart grid implementation, overall electric grid and pipeline replacement and hardening, water storage and reuse enhancements, and prioritization for power outages and restoration. These are projects identified and budgeted in the annual budget process. Future capital projects will be identified and budgeted in the same way.